



December 21, 2015

Ms. Donna Nickerson, Secretary
Delaware Public Service Commission
861 Silver Lake Boulevard
Cannon Building, Suite 100
Dover, Delaware 19904

Re: Delaware Division of Chesapeake Utilities Corporation Rate Increase Application

Dear Ms. Nickerson:

Enclosed for filing is an electronic copy of the application of Chesapeake Utilities Corporation ("Chesapeake" or the "Company") for a general increase in its natural gas rates and for certain other changes to its natural gas tariff. Included in the application are the proposed delivery service rates and rate design that would achieve the requested annual revenue. Also included in the application are delivery service rates which the Company is seeking to put into effect on an interim basis under bond in the event the Delaware Public Service Commission suspends the full proposed increase in rates.

As indicated in the Company's Notice of Intent to the Delaware Public Service Commission dated December 8, 2015, the general rate increase application support data is based upon a test year comprised of the twelve months ended June 30, 2015 and a test period consisting of the twelve months ending March 31, 2016.

Also, enclosed is the Delaware Public Service Commission's "Filing Cover Sheet" along with the application fee of \$100. Should you have any questions with regard to this filing, please contact me at 302.736.7635.

Sincerely,

A handwritten signature in black ink, appearing to read "W. O'Brien", written over a horizontal line.

William O'Brien
Associate General Counsel

Enclosures

Cc: Brian M. Quinn
David L. Bonar, Public Advocate

For PSC Use Only:

Docket No. _____

Filing Date: _____

Reviewer: _____

Given to: _____

**DELAWARE PUBLIC SERVICE COMMISSION
FILING COVER SHEET**

1. NAME OF APPLICANT: Chesapeake Utilities Corporation
2. TYPE OF FILING: RATE CHANGE X
FUEL ADJUSTMENT _____
ADMINISTRATIVE _____
CPCN _____
NEW SERVICE OFFERING _____
OTHER _____

IF A TELECOMMUNICATIONS FILING, WHAT TYPE OF SERVICE IS IMPACTED?
(PLEASE CHECK)

BASIC _____ COMPETITIVE _____ DISCRETIONARY _____

3. PROPOSED EFFECTIVE DATE: February 19, 2016

IS EXPEDITED TREATMENT REQUESTED? YES _____ NO X

4. SHORT SYNOPSIS OF FILING: Chesapeake Utilities Corporation proposes a general increase in its natural gas rates and approval of certain other changes to its natural gas tariff.

5. DOES THIS FILING RELATE TO PENDING DOCKETS? YES _____ NO X

IF SO, PLEASE LIST DOCKET(S) NO(S):

6. IS PUBLIC NOTICE REQUIRED? YES X NO _____
IF YES, PLEASE ATTACH COPY OF PROPOSED PUBLIC NOTICE.

7. APPLICANT'S CONTACT PERSON: (NAME) William O'Brien
(TITLE) Associate General Counsel
(EMAIL) bobrien@chpk.com
(TELE. NO.) 302.736.7635

8. DID YOU PROVIDE A COMPLETE COPY OF THE FILING TO THE PUBLIC ADVOCATE?

YES X NO _____ IF SO, WHEN? December 21, 2015

9. FILING FEE ENCLOSED: \$100.00
(AMOUNT)

NOTE: House Bill 681, enacted into law 7/13/98, authorizes the Commission to recover the cost of time spent by in-house staff to process all filings initiated after the date of enactment. You may be required to reimburse the Commission for staff time.

**BEFORE THE
PUBLIC SERVICE COMMISSION
OF DELAWARE**

**IN THE MATTER OF THE APPLICATION OF
CHESAPEAKE UTILITIES CORPORATION
FOR A GENERAL INCREASE IN ITS
NATURAL GAS RATES AND FOR
APPROVAL OF CERTAIN OTHER
CHANGES TO ITS NATURAL GAS TARIFF
(Filed December 21, 2015)**

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PSC DOCKET NO. _____

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**APPLICATION OF CHESAPEAKE UTILITIES CORPORATION
FOR A GENERAL INCREASE IN ITS NATURAL GAS RATES AND FOR APPROVAL
OF CERTAIN OTHER CHANGES TO ITS NATURAL GAS TARIFF**

Chesapeake Utilities Corporation (“Chesapeake”) hereby files this application (“Application”) with the Public Service Commission of the State of Delaware (“Commission”) seeking a change in natural gas base rates, and other miscellaneous changes to its tariff, pursuant to 26 Del. C. §§201, 301, 304, 306, 315, 1500 and other applicable authorities. In support of this Application, Chesapeake submits the following:

Applicant

1. Chesapeake is a Delaware corporation duly authorized by its articles of incorporation to engage in the business of transporting, distributing and selling natural gas in the State of Delaware.¹ Under 26 Del. C. §102, Chesapeake is a “public utility” and is authorized to sell and distribute natural gas in portions of New Castle County and throughout Kent County and Sussex County, Delaware. Chesapeake, through its Delaware Division, serves approximately 47,000

¹ The voting stock of Chesapeake is publicly owned. Shares of common stock, 15,242,967 of which were outstanding as of June 30, 2015, are the only voting securities of Chesapeake.

natural gas customers in Delaware pursuant to rates heretofore approved by the Commission.²

2. All communications and correspondence concerning this matter should be sent to the following persons at the addresses stated below:

William O'Brien (bobrien@chpk.com)
Associate General Counsel
Chesapeake Utilities Corporation, Inc.
909 Silver Lake Boulevard
Dover, Delaware 19904

Brian M. Quinn³ (bquinn@venable.com)
Venable LLP
750 E. Pratt Street, Suite 900
Baltimore, Maryland 21202

C. James Moore, Vice President (jmoore@chpk.com)
Chesapeake Utilities Corporation
350 South Queen Street
Dover, Delaware 19904

Need for Rate Change

3. For the first time in over eight years, Chesapeake is seeking an adjustment to its volumetric delivery rates.⁴ Not surprisingly, costs have risen since 2007 to a point where Chesapeake is falling well short of its authorized return on utility investment.⁵ In addition, natural gas consumption on a per customer basis has declined since 2007, which has decreased the volumes over which to allocate fixed costs. Furthermore, since its 2007 rate case, Chesapeake has invested nearly \$11 million in pipeline replacement, primarily to remove unprotected bare steel

² Chesapeake is a diversified energy company engaged in natural gas gathering, transmission, distribution and marketing; electric distribution; propane distribution and wholesale marketing; and other related businesses. Chesapeake operates natural gas distribution entities in Maryland, Delaware and Florida that serve a total of approximately 141,000 customers. Each natural gas entity is separately subject to the regulatory jurisdiction of the public utility commission in each of those three states.

³ Chesapeake is separately filing a motion for admission of Mr. Quinn, *pro hac vice*, to represent Chesapeake in this matter.

⁴ On June 25, 2012, in order to facilitate natural gas expansion in southeastern Sussex County, Chesapeake requested increases to its fixed monthly customer charges for new customers in certain rate classes located within a defined Expansion Area. In November of 2013, the Commission authorized new Expansion Area rate classes with higher customer charges than those charged under the corresponding rate classes applicable outside of the Expansion Area. *See* Order No. 8479 (Nov. 5, 2013), Docket No. 12-292. In this Application, Chesapeake does not seek changes to the customer charges approved in Docket No. 12-292 for the Expansion Area rate classes.

⁵ Chesapeake filed its last base rate case on July 6, 2007, in Docket No. 07-186. At the conclusion of that case, the Commission adopted a proposed settlement agreement that increased rates by \$325,000, or less than 1 percent of total operating revenues. *See* Order No. 7434 (Sept. 2, 2008).

pipe that was installed prior to 1970. Although bare steel replacement improves system reliability, it does not generate incremental revenue to support the substantial investment required. Chesapeake seeks an adjustment to its rates therefore to reflect accurately the current level of sales and the current level of costs that Chesapeake is incurring to provide safe and reliable service to its customers.

Summary of Application

4. By this Application, Chesapeake seeks approval of an increase in delivery service rates of \$4,741,823 or 9.96% percent of total operating revenues. Under the proposed rate design, an average residential heating customer using 120 Ccfs during a winter month will experience an increase of \$13.36 per month, or 10.68 percent. An average residential non-heating customer using 18 Ccfs per month will experience an increase of \$5.41 per month, or 15.17 percent. The proposed rates are based on a historic test year of the twelve-month period ending June 30, 2015, and a test period of the twelve-month period ending March 31, 2016.

5. Applicant is filing revised natural gas tariff pages along with this Application that incorporate the proposed changes for base rates to be effective February 19, 2016. Should the Commission exercise its discretion to suspend the proposed adjustment to base rates, Chesapeake requests that the Commission permit interim rates to go into effect on February 19, 2016, subject to refund. With respect to rate design and rate structure, Chesapeake is submitting herewith a complete cost of service study and certain rate design proposals. The proposed percentage increases in revenue from the various existing rate classifications under the proposed interim rates and the full proposed rates are included as Exhibit A. A proposed form of public notice is attached to this Application.

6. Chesapeake's current Commission-approved rate of return is 8.91 percent, which

includes a return on equity of 10.25 percent. Chesapeake's current *actual* rate of return on an adjusted rate base for the test period (without rate relief) is 4.61 percent, including a 4.46 percent return on equity. Chesapeake has determined that its cost of capital, which is the overall rate of return required to attract capital at a reasonable cost, is 8.55 percent, which includes a return on equity of 11.0 percent. Because Chesapeake's actual rate of return of 4.61 percent is less than its 8.55 percent cost of capital, Chesapeake's present rates are not just and reasonable and do not provide an opportunity for it to earn a reasonable return on the fair value of its property devoted to natural gas service.

7. In addition to the proposed rate changes, Chesapeake seeks approval of certain new service offerings further described in the testimony and revised tariff pages submitted herewith. Proposed new offerings include: (a) a Multi-Family Housing Program, under which Chesapeake will provide a financial contribution to offset the costs associated with gas piping and venting to builders that select natural gas for multi-family housing -- while protecting existing customers from subsidizing such expansion; (b) a Natural Gas Compression Service, under which Chesapeake will construct, own and maintain compression facilities for commercial customers who require enhanced pressure for their operations; (c) a Municipal Natural Gas Infrastructure Expansion Program, under which Chesapeake may offer incorporated towns an advance that would fund the construction of natural gas infrastructure in the town and which the town would pay back within six years; (d) a Temporary Gas Storage Tank Program for those instances when new construction has been completed prior to Chesapeake completing its natural gas main extension to the project and the customers require a temporary gas service until they can connect to the natural gas main, (e) a Poultry House Transportation offering, which will permit poultry companies to aggregate usage from their poultry houses for purposes of meeting the minimum consumption

requirement for transportation service, and (f) natural gas service to owners or operators of compressed natural gas (“CNG”) facilities or to CNG transportation providers, who compress and/or transport CNG to third parties. Chesapeake also proposes a Revenue Normalization Adjustment (“RNA”) for residential and smaller commercial customers similar to the RNA contained in its Maryland Division tariff since 2006, as well as several other miscellaneous changes to its tariff.

8. In addition, Chesapeake is requesting Commission approval of deferral accounting treatment for: (a) expenses relating to the set-up and implementation of new technologies, including a new billing system and (b) expenses associated with Chesapeake’s pension, deferred compensation and other post-retirement benefits. A deferred accounting order is no guaranty of future cost recovery but the Commission in the past has required pre-approval of deferred treatment prior to a company’s request for recovery of such expenses. *See* PSC Order No. 8589 (Aug. 5, 2014) at ¶ 118, 119; PSC Order No. 7838 (Sept. 21, 2010).

9. The justification for the proposed rate changes, new service offerings, and deferred accounting approvals is set forth in the accompanying Minimum Filing Requirements schedules and the supporting direct testimony of the following witnesses:

- i. C. James Moore, Vice President – overview of the Application and the need for rate relief;
- ii. Sarah Hardy, Regulatory Analyst III – sales and revenues, cost of service internal cost studies, and proposed tariff changes;
- iii. Matthew Everngam, Regulatory Analyst III – rate base;
- iv. Jeffrey Weiss, Regulatory Analyst II – operations and maintenance (“O&M”) expenses and aggregated economic results from expansion projects since the last rate case;
- v. Matthew Dewey, Director of Accounting Shared Services – corporate O&M

expenditure adjustments and cost allocation procedures;

vi. Lisa Elder, Director of Financial Reporting and Tax – income taxes;

vii. Christopher Redd, Director of Gas Operations and Engineering – capital spending;

viii. Autumn Chalabala, Manager, Financial Analysis and Services – actual O&M expenses;

ix. Shane Breakie, Director of Energy Services – proposed new services;

x. Kathy McVay, independent consultant – proposal on pension plan;

xi. John Taylor, Project Manager, Black & Veatch Corporation – cost of service study;

xii. Ronald Amen, Director, Black & Veatch Corporation – rate design and proposed RNA; and

xiii. Paul Moul, Managing Consultant, P. Moul & Associates – return on equity and overall rate of return.

Copies of Chesapeake's proposed rate schedules and revised tariff pages as well as the Minimum Filing Requirements schedules are being submitted simultaneously with the filing of this Application.

Interim Rate Relief

10. In accordance with 26 Del. C. §306, Chesapeake's revised rates and schedules are submitted with a proposed effective date of February 19, 2016, which is 60 days after the filing. Should the Commission exercise its discretion to suspend the proposed adjustment, Chesapeake requests interim rates, effective February 19, 2016, designed to contribute \$2,500,000 annually, as permitted under 26 Del. C. §306(c). Chesapeake proposes to recover the \$2,500,000 interim

adjustment as an equal increase to all firm volumetric delivery service rates and fixed monthly customer charges (other than the customer charges contained in its Expansion Area rate schedules), as set forth in the tariff pages included with this filing.

11. Chesapeake respectfully requests that the Commission waive the surety bond requirement of 26 Del. C. §306(b) for interim rates. Chesapeake is strong financially and has access to sufficient financial resources to provide a refund, if so ordered by the Commission. As described in Mr. Moul's testimony, Chesapeake has the highest credit rating available from the National Association of Insurance Commissioners for long term debt and has financing arrangements in place with Prudential Investment Management and a group of five banks for a total of \$300 million. Chesapeake agrees to abide by any Commission order that would require a refund of amounts collected through the use of interim rates. Chesapeake notes that the Commission recently has granted similar waiver requests to Artesian Water Company, Inc. in Docket No. 14-132 and to Delmarva Power & Light Company in Docket No. 13-115.⁶

12. The testimony and schedules filed herewith in support of this Application demonstrate that the proposed rate increase is essential, cost-justified and the minimum required to assure continued adequate service and to achieve the minimum rate of return needed to attract capital at reasonable costs.

WHEREFORE, Chesapeake respectfully requests that the Commission:

- A. Find the accompanying revised rate schedules for retail gas service to be just and reasonable and authorize the rates and charges specified therein to become effective on February 19, 2016;
- B. Should the Commission suspend the proposed adjustments to base rates, issue an order

⁶ See PSC Order No. 8558 (May 13, 2014) and Order No. 8337 (April 9, 2013), respectively.

permitting the interim rates requested herein to go into effect on February 19, 2016,
subject to refund;

- C. Waive the surety bonding requirement for interim rates;
- D. Approve the new service offerings and associated tariff changes proposed herein,
including a Revenue Normalization Adjustment; and
- E. Grant deferred accounting treatment for certain expenses relating to new technologies
and for certain expenses relating to its pension plan, as requested herein.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "W. O'Brien", written over a horizontal line.

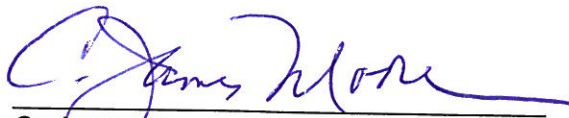
William O'Brien
Associate General Counsel
Chesapeake Utilities Corporation

December 21, 2015

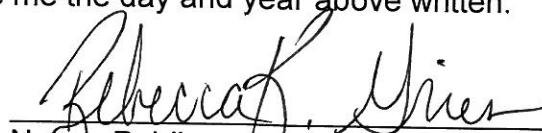
DATED: DECEMBER 21, 2015

STATE OF DELAWARE)
)
COUNTY OF KENT)

BE IT REMEMBERED that on this 21st day of December, 2015, personally appeared before me, a notary public for the State and County aforesaid, C. James Moore, who being by me duly sworn, did depose and say that he is Vice President for Chesapeake Utilities Corporation, a Delaware corporation and insofar as the Application of Chesapeake Utilities Corporation states facts, said facts are true and correct, and insofar as those facts are not within his personal knowledge, he believes them to be true, and that the schedules accompanying this application and attached hereto are true and correct copies of the originals of the aforesaid schedules, and that he has executed this Application on behalf of the Company.


C. James Moore
Vice President

SWORN TO AND SUBSCRIBED before me the day and year above written.


Notary Public
My Commission Expires: 7-17-18



CERTIFICATE OF SERVICE

I, William F. O'Brien, do hereby certify that on December 21, 2015, a copy of Chesapeake Utilities Corporation's application for a general increase in its natural gas rates and services and for approval of certain other changes to its Delaware natural gas tariff was issued to the following persons in the manner indicated:

VIA E-FILING

Donna Nickerson, Secretary
Delaware Public Service Commission
Suite 100, Cannon Building
861 Silver Lake Blvd.
Dover, Delaware 19904

VIA E-MAIL

David L. Bonar, Public Advocate
Division of the Public Advocate
David.Bonar@state.de.us

Regina A. Iorii, Deputy Attorney General
Division of the Public Advocate
Regina.Iorii@state.de.us

A handwritten signature in black ink, appearing to read "W. O'Brien", is written over a horizontal line.

William O'Brien
Associate General Counsel

**Chesapeake Utilities Corporation
Delaware Division
Application for an Increase in Base Rates
and Other Changes to the Tariff
PSC Docket No. 15-**

Impact of Proposed Interim Rates

| <u>Schedule</u> | <u>Rate Classification</u> | <u>% Increase</u> |
|------------------------|--------------------------------------|--------------------------|
| RS-1 | Residential Service - 1 | 7.90% |
| ERS-1 | Residential Service - 1 Expansion | 2.38% |
| RS-2 | Residential Service - 2 | 5.02% |
| ERS-2 | Residential Service - 2 Expansion | 2.06% |
| GS | General Service | 4.93% |
| EGS | General Service Expansion | 1.77% |
| MVS | Medium Volume Service | 3.16% |
| EMVS | Medium Volume Service Expansion | 2.86% |
| LVS | Large Volume Service | 5.34% |
| HLFS | High Load Factor Service | 10.05% |
| NGV | Natural Gas Vehicle Service | no change |
| GLR | Gas Lighting Service | no change |
| NCR | Negotiated Contract Rate | 0.74% |
| ITS | Interruptible Transportation Service | flexible rate |

**Chesapeake Utilities Corporation
Delaware Division
Application for an Increase in Base Rates
and Other Changes to the Tariff
PSC Docket No. 15-**

Impact of Full Proposed Rates

| <u>Schedule</u> | <u>Rate Classification</u> | <u>% Increase</u> |
|------------------------|--------------------------------------|--------------------------|
| RS-1 | Residential Service - 1 | 30.68% |
| ERS-1 | Residential Service - 1 Expansion | 11.25% |
| RS-2 | Residential Service - 2 | 12.33% |
| ERS-2 | Residential Service - 2 Expansion | 4.96% |
| GS | General Service | 13.32% |
| EGS | General Service Expansion | 2.70% |
| MVS | Medium Volume Service | 4.38% |
| EMVS | Medium Volume Service Expansion | 3.86% |
| LVS | Large Volume Service | -0.06% |
| HLFS | High Load Factor Service | -0.11% |
| NGV | Natural Gas Vehicle Service | no change |
| GLR | Gas Lighting Service | 33.67% |
| NCR | Negotiated Contract Rate | 4.67% |
| ITS | Interruptible Transportation Service | flexible rate |

"DRAFT"

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF DELAWARE

IN THE MATTER OF THE APPLICATION OF)
CHESAPEAKE UTILITIES CORPORATION)
FOR A GENERAL INCREASE IN ITS)
NATURAL GAS RATES AND FOR) PSC DOCKET NO. 15-
APPROVAL OF CERTAIN OTHER)
CHANGES TO ITS NATURAL GAS TARIFF)
(Filed December 21, 2015))

P U B L I C N O T I C E

**TO: ALL NATURAL GAS CUSTOMERS OF CHESAPEAKE UTILITIES CORPORATION AND
OTHER INTERESTED PERSONS**

On December 21, 2015, the Delaware Division of Chesapeake Utilities Corporation ("Chesapeake") filed with the Delaware Public Service Commission an application for an increase in natural gas rates and other proposed changes to its currently effective tariff. The new rates are proposed to be effective with service rendered on and after February 19, 2016, and are designed to produce an annual increase of approximately \$4,741,823 or 9.96% of existing revenues based on a test period ending March 31, 2016. The full proposed rates would increase the bill of the average residential natural gas heating customer using 120 Ccf (hundred cubic feet) during a winter month by approximately \$13.36 per month, and by \$5.41 per month for the average non-heating gas customer using 18 Ccf per month.

The Commission has suspended the proposed effective date of the proposed new rates; however, pursuant to 26 Del. C. §306(c), Chesapeake has placed interim rates into effect, subject to refund. The interim rates would increase the bill of the average residential natural gas heating customer using 120 Ccf during a winter month by approximately

\$4.83 per month, and by \$2.71 per month for the average non-heating gas customer using 18 Ccf per month.

In addition to the proposed rate changes, Chesapeake seeks approval of certain new service offerings. Proposed new offerings include: (a) a Multi-Family Housing Program, under which Chesapeake will provide a financial contribution to offset the costs associated with gas piping and venting to builders that select natural gas for multi-family housing -- while protecting existing customers from subsidizing such expansion; (b) a Natural Gas Compression Service, under which Chesapeake will construct, own and maintain compression facilities for commercial customers who require enhanced pressure for their operations; (c) a Municipal Natural Gas Infrastructure Expansion Program, under which Chesapeake may offer incorporated towns an advance that would fund the construction of natural gas infrastructure in the town and which the town would pay back within six years; (d) a Temporary Gas Storage Tank Program for those instances when new construction has been completed prior to Chesapeake completing its natural gas main extension to the project and the customers require a temporary gas service until they can connect to the natural gas main, and (e) a Poultry House Transportation offering, which will permit poultry companies to aggregate usage from their poultry houses for purposes of meeting the minimum consumption requirement for transportation service. Chesapeake also proposes a Revenue Normalization Adjustment ("RNA") for residential and smaller commercial customers similar to the RNA contained in its Maryland Division tariff since 2006, as well as several other miscellaneous changes to its tariff.

The Commission will conduct evidentiary hearings, to be scheduled at a later date, concerning this Application. The Commission's final decision will be based on the evidence presented at such hearings.

If you wish to formally participate as a party in this matter, with the right to present evidence and be represented by counsel, you must file with the Commission a written petition asking for leave to intervene in accordance with the requirements of the Commission's Rules of Practice and Procedure (26 Del. Admin. C. §1001-2.9) **on or before** _____. All such petitions should be e-filed according to the Commission's Rules (26 Del. Admin. C. §1001-1.6.4). Petitions filed after the deadline of _____, will not be considered except for good cause shown.

You are invited to review Chesapeake's application and supporting documents to determine how your interests may be affected by going to DelaFile (<http://delafile.delaware.gov>), the Commission's file management system, and by searching for Docket No. 15-_____.

If you would like to review documents at the Commission's offices, please contact Donna Nickerson at (302) 736-7500 or by sending an email addressed to donna.nickerson@state.de.us. You may also review copies of Chesapeake's Application and supporting documents at the office of the Division of the Public Advocate located at either 820 North French Street, 4th Floor, Wilmington, Delaware 19801 or 29 South State Street, Dover, DE 19901. Please call either (302) 577-5077 (Wilmington) or (302) 241-2555 (Dover) to arrange for a time to review the documents at either of those locations.

If you wish to request copies of documents in this matter, please submit a Freedom of Information Act Request Form. The link to this form can be found on the Commission's website, <http://depsec.delaware.gov>, or by visiting this web address: <https://delafile.delaware.gov/Complaints/FOIA.aspx>. The Commission will respond to your request in accordance with the Delaware Freedom of Information Act, 29 Del. C. ch. 100.

If you have a disability and wish to participate or to review the materials in this matter, please contact the Commission to discuss any auxiliary aids or services you might need to help you. You may contact the Commission in person, by writing, by telephone (including text telephone), by Internet e-mail, or other means. If you have questions about this matter, you may call the Commission at 1-800-282-8574 (toll-free in Delaware) or (302) 736-7500 (voice and text telephone). You may also send questions regarding this matter by Internet e-mail addressed to jason.r.smith@state.de.us.

CHESAPEAKE UTILITIES CORPORATION
DELAWARE DIVISION BASE RATE APPLICATION
Briefing Sheet
PSC Docket No. 15-
Filed December 21, 2015

Subject:

Chesapeake Utilities Corporation – Delaware Division filed an application with the Delaware Public Service Commission (“Commission”) on Monday, December 21, 2015, for a general increase in its natural gas base tariff rates and for approval for certain other changes to its natural gas tariff.

Increase Sought:

Proposed base rate increase of \$4,741,837 or 9.96% of existing revenues based on the test period ending March 31, 2016. In the event the Commission suspends the increase in base rates pending the evidentiary hearing process, the Company proposes to increase rates on an interim basis subject to refund by \$2,500,000 which represents a 5.25% increase of existing revenues, or 52.7% of the overall requested increase.

Test Year: Twelve-months ended June 30, 2015

Test Period: Twelve-months ending March 31, 2016

Primary Reasons For Filing:

Chesapeake Utilities Corporation – Delaware Division has been unable to earn its allowed rate of return for the twelve months ended June 30, 2015. Natural gas consumption on a per customer basis has declined since 2007, which has decreased the volumes over which to allocate fixed costs. Also, since its last rate case, Chesapeake has invested nearly \$11 million in pipeline replacement, primarily to remove unprotected bare steel pipe that was installed prior to 1970. Although bare steel replacement improves system reliability, it does not generate incremental revenue to support the investment it requires. The Company’s last base rate filing was submitted to the Delaware Public Service Commission on July 6, 2007, and the Commission approved a \$325,000 general increase in base rates in that docket.

Effective Date:

The Company is requesting that the full proposed base rate increase become effective February 19, 2016. In the event the full proposed rates and services are suspended beyond 60 days from the date of the application, the Company proposes to place interim rates in effect as of February 19, 2016.

CHESAPEAKE UTILITIES CORPORATION
DELAWARE DIVISION BASE RATE APPLICATION
Briefing Sheet
PSC Docket No. 15-
Filed December 21, 2015

Rate Design and Structure:

The proposed interim base rates have been designed based on the Company's current rate structure and current customer classes. The \$2,500,000 interim rate increase as stated above has been spread to all firm customer classes equally based on their non-fuel or delivery service margin, other than the customer charges contained in the Expansion Area rate schedules.

The Company is not proposing any changes in its rate structure and design for its full proposed rates. The Company is proposing a revenue normalization adjustment mechanism for customers in all Residential Service and General Service rate classes.

Rate Base:

Included in this filing is a calculation of the Company's average rate base for the twelve months ending March 31, 2016, which is \$70,938,749.

New Service Offering:

In addition to the proposed rate changes, Chesapeake seeks approval of certain new service offerings. Proposed new offerings include:

- (a) a Multi-Family Housing Program, under which Chesapeake will provide a financial contribution to offset the costs associated with gas piping and venting to builders that select natural gas for multi-family housing -- while protecting existing customers from subsidizing such expansion;
- (b) a Natural Gas Compression Service, under which Chesapeake will construct, own and maintain compression facilities for commercial customers who require enhanced pressure for their operations;
- (c) a Municipal Natural Gas Infrastructure Expansion Program, under which Chesapeake may offer incorporated towns an advance that would fund the construction of natural gas infrastructure in the town and which the town would pay back within six years;
- (d) a Temporary Gas Storage Tank Program for those instances when new construction has been completed prior to Chesapeake completing its natural gas main extension to the project and the customers require a temporary gas service until they can connect to the natural gas main;

CHESAPEAKE UTILITIES CORPORATION DELAWARE DIVISION BASE RATE APPLICATION

Briefing Sheet

PSC Docket No. 15-

Filed December 21, 2015

- (e) a Poultry House Transportation offering, which will permit poultry companies to aggregate usage from their poultry houses for purposes of meeting the minimum consumption requirement for transportation service; and
- (f) natural gas service to owners or operators of compressed natural gas ("CNG") facilities or to CNG transportation providers, who compress and/or transport CNG to third parties.

Other Tariff Changes:

Chesapeake also proposes several other tariff changes, such as:

- (a) a Revenue Normalization Adjustment ("RNA") for residential and smaller commercial customers similar to the RNA contained in its Maryland Division tariff since 2006;
- (b) proposed modifications to the curtailment policy;
- (c) a proposed extension in the bill payment due date from ten (10) days to twenty (20) days;
- (d) a proposed modification to the interest rate on customer deposits; and
- (e) general formatting and clarification changes.

Rate of Return:

Proposed overall rate of return of 8.55% on rate base with a proposed 11.00% on common equity.

Capital Structure:

| Line No. | Type of Capital | Proportion of Total | Cost of Each Type of Capital | Cost Component |
|----------|-----------------|---------------------|------------------------------|----------------|
| 1 | Long-Term Debt | 39.61% | 4.82% | 1.91% |
| 2 | Common Equity | <u>60.39%</u> | 11.00% | <u>6.64%</u> |
| 3 | Total | <u>100.00%</u> | | <u>8.55%</u> |

CHESAPEAKE UTILITIES CORPORATION DELAWARE DIVISION BASE RATE APPLICATION

Briefing Sheet PSC Docket No. 15- Filed December 21, 2015

Summary of Rate Increase:

| | Test Period Amount (\$000's) |
|------------------------------|---------------------------------|
| Rate Base | \$70,939 |
| Net Operating Income | \$3,267 |
| Earned Rate of Return | 4.61% |
| Proposed Fair Rate of Return | 9.68% |
| Required Operating Income | \$6,065 |
| Operating Income Deficiency | \$2,798 |
| Revenue Deficiency | \$4,741 |
| Revenue Increase Requested | 9.96% |

Details of Preceding Rate Case: (Docket No. 07-186)

- Filed July 6, 2007; decided September 2, 2008; final rates effective September 3, 2008.
- Increase of \$325,000 granted.
- 8.91% overall rate of return granted.
- 10.25% return on equity granted.

Impact on Existing Rate Classes:

| Rate Classification | Test Period Average Customers | Interim Proposed Increase | |
|-----------------------|----------------------------------|---------------------------|--------|
| | | Dollar | % |
| Residential – 1 | 4,147 | \$92,502 | 7.90% |
| Residential – 1 (Exp) | 106 | 1,057 | 2.37% |
| Residential – 2 | 38,500 | 1,544,161 | 5.02% |
| Residential – 2 (Exp) | 465 | 9,736 | 2.06% |
| General Svc | 2,851 | 162,218 | 4.93% |
| General Svc (Exp) | 15 | 362 | 1.77% |
| Medium Volume | 484 | 88,980 | 3.16% |
| Medium Volume (Exp) | 3 | 302 | 2.86% |
| Large Volume | 205 | 198,123 | 5.34% |
| High Load Factor | 310 | 399,507 | 10.05% |
| Other Firm | 15 | 1,104 | 1.69% |
| Interruptible | 2 | 0 | 0.00% |
| Natural Gas Vehicles | 5 | 0 | 0.00% |
| Total | 47,108 | \$2,498,052 | 5.25% |

**CHESAPEAKE UTILITIES CORPORATION
DELAWARE DIVISION BASE RATE APPLICATION
Briefing Sheet
PSC Docket No. 15-
Filed December 21, 2015**

Existing and Proposed Typical Residential Rates (Non-Expansion Area):

| | Existing Rate | Proposed Interim Rate | Full Proposed Rate (RS-2) |
|-----------------|------------------|--------------------------|------------------------------|
| Customer Charge | \$13.00 | \$14.50 | \$17.00 |
| First 20 Ccf | \$0.578 | \$0.645 | \$0.656 |
| Next 30 Ccf | \$0.319 | \$0.355 | \$0.397 |
| Over 50 Ccf | \$0.132 | \$0.145 | \$0.210 |

Existing and Proposed Typical Residential Rates (Expansion Area):

| | Existing Rate | Proposed Interim Rate | Full Proposed Rate (ERS-2) |
|-----------------|------------------|--------------------------|-------------------------------|
| Customer Charge | \$31.75 | \$31.75 | \$31.75 |
| First 20 Ccf | \$0.578 | \$0.645 | \$0.656 |
| Next 30 Ccf | \$0.319 | \$0.355 | \$0.397 |
| Over 50 Ccf | \$0.132 | \$0.145 | \$0.210 |

Impact on Average Residential Heating Customer Using 645 Ccf per Year:
(As compared to Current Rates)

| | |
|------------------|----------------------------|
| Proposed Interim | \$3.44 per month or 5.15% |
| Full Proposed | \$8.19 per month or 12.24% |

**CHESAPEAKE UTILITIES CORPORATION
DELAWARE DIVISION BASE RATE APPLICATION**

**Briefing Sheet
PSC Docket No. 15-
Filed December 21, 2015**

Impact on Average Residential Heating Customer Using 120 Ccf per Winter Month:
(As compared to Current Rates)

Proposed Interim \$4.83 per winter month or 3.86%

Full Proposed \$13.36 per winter month or 10.68%

Impact on Average Residential Non-Heating Customer Using 18 Ccf per Month:
(As compared to Current Rates)

Proposed Interim \$2.71 per month or 7.60%

Full Proposed \$5.41 per month or 15.17%

RATE SCHEDULE "RS - 1"

RESIDENTIAL SERVICE - 1

AVAILABILITY

This rate schedule is available to any individually metered customer using gas in a residential dwelling or unit for space heating, cooking, water heating, or other domestic purpose with an annual consumption of 240 Ccf or less. The Company will annually review those customers receiving service under this rate schedule in order to determine the appropriate firm residential rate schedule should their annual consumption warrant such a change. This annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|-------------------|
| Customer Charge: | \$11.75 per month |
| First 20 Ccf | \$0.675 per Ccf |
| Next 30 Ccf | \$0.310 per Ccf |
| Over 50 Ccf | \$0.190 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers served under this rate schedule are subject to the gas cost rate applicable to Rate Schedule "RS-1" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within ten (10) days of their date.

MINIMUM BILL

The minimum monthly bill under this rate schedule is the customer charge.

Issue Date: December 21, 2015

Effective Date: For Service Rendered on and after February 19, 2016

Authorization:

RATE SCHEDULE "RS - 2"

RESIDENTIAL SERVICE – 2

AVAILABILITY

This rate schedule is available to any individually metered customer using gas in a residential dwelling or unit for space heating, cooking, water heating, or other domestic purpose with annual consumption of greater than 240 Ccf. The Company will annually review those customers receiving service under this rate schedule in order to determine the appropriate firm residential rate schedule should their annual consumption warrant such a change. A Customer on RS-1 Service will be moved to this rate schedule with annual consumption equal to or greater than 264 Ccf. A Customer on this rate schedule will be moved to RS-1 Service with annual consumption less than 216 Ccf. This annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|-------------------|
| Customer Charge: | \$14.50 per month |
| First 20 Ccf | \$0.645 per Ccf |
| Next 30 Ccf | \$0.355 per Ccf |
| Over 50 Ccf | \$0.145 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers served under this rate schedule are subject to the gas cost rate applicable to Rate Schedule "RS-2" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within ten (10) days of their date.

MINIMUM BILL

The minimum monthly bill under this rate schedule is the customer charge.

Issue Date: December 21, 2015

Effective Date: For Service Rendered on and after February 19, 2016

Authorization:

RATE SCHEDULE "ERS-1"

EXPANSION AREA RESIDENTIAL SERVICE – 1

AVAILABILITY

This rate schedule is available to any individually metered customer within the southeastern Sussex County, Delaware, expansion area using gas in a residential dwelling or unit for space heating, cooking, water heating, or other domestic purpose with an annual consumption of 240 Ccf or less. The southeastern Sussex County, Delaware, expansion area is defined as the area east of Chesapeake's district regulator station located on Route 9 in Lewes, Delaware, that is connected to Chesapeake's distribution main and any area that is connected to Chesapeake's distribution main behind the three Eastern Shore Natural Gas transmission pipeline City Gates located in Dagsboro, Frankford, and Selbyville, Delaware. The Company will annually review those customers receiving service under this rate schedule in order to determine the appropriate firm residential rate schedule should their annual consumption warrant such a change. This annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|-------------------|
| Customer Charge: | \$16.50 per month |
| First 20 Ccf | \$0.675 per Ccf |
| Next 30 Ccf | \$0.310 per Ccf |
| Over 50 Ccf | \$0.190 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers served under this rate schedule are subject to the gas cost rate applicable to Rate Schedule "RS" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within ten (10) days of their date.

RATE SCHEDULE "ERS-2"

EXPANSION AREA RESIDENTIAL SERVICE – 2

AVAILABILITY

This rate schedule is available to any individually metered customer within the southeastern Sussex County, Delaware, expansion area using gas in a residential dwelling or unit for space heating, cooking, water heating, or other domestic purpose with annual consumption of greater than 240 Ccf. The southeastern Sussex County, Delaware, expansion area is defined as the area east of Chesapeake's district regulator station located on Route 9 in Lewes, Delaware, that is connected to Chesapeake's distribution main and any area that is connected to Chesapeake's distribution main behind the three Eastern Shore Natural Gas transmission pipeline City Gates located in Dagsboro, Frankford, and Selbyville, Delaware. The Company will annually review those customers receiving service under this rate schedule in order to determine the appropriate firm residential rate schedule should their annual consumptions warrant such a change. A Customer on ERS-1 Service will be moved to this rate schedule with annual consumption equal to or greater than 264 Ccf. A Customer on this rate schedule will be moved to ERS-1 Service with annual consumption less than 216 Ccf. This annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|-------------------|
| Customer Charge: | \$31.75 per month |
| First 20 Ccf | \$0.645 per Ccf |
| Next 30 Ccf | \$0.355 per Ccf |
| Over 50 Ccf | \$0.145 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers served under this rate schedule are subject to the gas cost rate applicable to Rate Schedule "RS" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within ten (10) days of their date.

Issue Date: December 21, 2015

Effective Date: For Service Rendered on and after February 19, 2016

Authorization:

RATE SCHEDULE "GS"

GENERAL SERVICE

AVAILABILITY

This rate schedule is available to any customer using gas for commercial and/or industrial purposes with an annual consumption of less than 4,000 Ccf. The Company will annually review those customers receiving service under this rate schedule in order to determine the appropriate firm commercial and/or industrial rate schedule should their annual consumption warrant such a change. This annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|-------------------|
| Customer Charge: | \$28.95 per month |
| First 20 Ccf | \$0.495 per Ccf |
| Next 30 Ccf | \$0.310 per Ccf |
| Over 50 Ccf | \$0.155 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "GS" provided on Sheet No. 42.

TRANSPORTATION AND BALANCING RIDER

Transportation service is available to commercial and industrial customers with annual consumption through one or more contiguous meters in a specific geographic location equal to, or greater than, 30,000 Ccf per year that choose to have their own gas transported through the Company's distribution system. Customers purchasing natural gas from a supplier, other than the Company, must have the natural gas delivered to the Company's city gate in accordance with the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the customer is subject to the following Firm Balancing Service Rate applied to all gas consumption

| | |
|-------------------------------------|--|
| Firm Balancing Service Rate: | \$0.081 per Ccf of gas consumed |
|-------------------------------------|--|

Issue Date: December 21, 2015

Effective Date: For Service Rendered on and after February 19, 2016

Authorization:

RATE SCHEDULE "EGS"

EXPANSION AREA GENERAL SERVICE

AVAILABILITY

This rate schedule is available to any customer within the southeastern Sussex County, Delaware, expansion area using gas for commercial and/or industrial purposes with an annual consumption of less than 4,000 Ccf. The southeastern Sussex County, Delaware, expansion area is defined as the area east of Chesapeake's district regulator station located on Route 9 in Lewes, Delaware, that is connected to Chesapeake's distribution main and any area that is connected to Chesapeake's distribution main behind the three Eastern Shore Natural Gas transmission pipeline City Gates located in Dagsboro, Frankford, and Selbyville, Delaware. The Company will annually review those customers receiving service under this rate schedule in order to determine the appropriate firm commercial and/or industrial rate schedule should their annual consumption warrant such a change. This annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|-------------------|
| Customer Charge: | \$56.00 per month |
| First 20 Ccf | \$0.5000 per Ccf |
| Next 30 Ccf | \$0.310 per Ccf |
| Over 50 Ccf | \$0.160 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "GS" provided on Sheet No. 42.

Issue Date: December 21, 2015

Effective Date: For Service Rendered on and after February 19, 2016

Authorization:

**RATE SCHEDULE "MVS"
MEDIUM VOLUME SERVICE**

AVAILABILITY

This rate schedule is available to any customer using gas for commercial and/or industrial purposes with an annual consumption generally equal to or greater than 4,000 Ccf and less than 15,000 Ccf. The Company will annually review those Customers receiving service under this rate schedule in order to determine the appropriate firm commercial and/or industrial rate schedule should their annual consumption warrant such a change. A Customer on General Service will be moved to this rate schedule with annual consumption equal to or greater than 4,400 Ccf. A Customer on this rate schedule will be moved to General Service with annual consumption less than 3,600 Ccf. The annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|-------------------|
| Customer Charge: | \$72.40 per month |
| First 200 Ccf | \$0.250 per Ccf |
| Over 200 Ccf | \$0.125 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "MVS" provided on Sheet No. 42.

TRANSPORTATION AND BALANCING RIDER

Transportation service is available to commercial and industrial customers with annual consumption through one or more contiguous meters in a specific geographic location equal to, or greater than, 30,000 Ccf per year that choose to have their own gas transported through the Company's distribution system. Customers purchasing natural gas from a supplier, other than the Company, must have the natural gas delivered to the Company's city gate in accordance with the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the customer is subject to the following Firm Balancing Service Rate applied to all gas consumption

| | |
|-------------------------------------|---------------------------------|
| Firm Balancing Service Rate: | \$0.091 per Ccf of gas consumed |
|-------------------------------------|---------------------------------|

Issue Date: December 21, 2015

Effective Date: For Service Rendered on and after February 19, 2016

Authorization:

RATE SCHEDULE "EMVS"

EXPANSION AREA MEDIUM VOLUME SERVICE

AVAILABILITY

This rate schedule is available to any customer within the southeastern Sussex County, Delaware, expansion area using gas for commercial and/or industrial purposes with an annual consumption generally equal to or greater than 4,000 Ccf and less than 15,000 Ccf. The southeastern Sussex County, Delaware, expansion area is defined as the area east of Chesapeake's district regulator station located on Route 9 in Lewes, Delaware, that is connected to Chesapeake's distribution main and any area that is connected to Chesapeake's distribution main behind the three Eastern Shore Natural Gas transmission pipeline City Gates located in Dagsboro, Frankford, and Selbyville, Delaware. The Company will annually review those Customers receiving service under this rate schedule in order to determine the appropriate firm commercial and/or industrial rate schedule should their annual consumption warrant such a change. A Customer on Rate Schedule EGS will be moved to this rate schedule with annual consumption equal to or greater than 4,400 Ccf. A Customer on this rate schedule will be moved to rate schedule EGS with annual consumption less than 3,600 Ccf. The annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|--------------------|
| Customer Charge: | \$158.75 per month |
| First 200 Ccf | \$0.250 per Ccf |
| Over 200 Ccf | \$0.125 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "MVS" provided on Sheet No. 42.

Issue Date: December 21, 2015

Effective Date: For Service Rendered on and after February 19, 2016

Authorization:

RATE SCHEDULE "LVS"

LARGE VOLUME SERVICE

AVAILABILITY

This rate schedule is available to any customer using gas for commercial and/or industrial purposes with an annual consumption generally equal to or greater than 15,000 Ccf. The Company will annually review those customers receiving service under this rate schedule in order to determine the appropriate firm commercial and/or industrial rate schedule should their annual consumption warrant such a change. A Customer on Medium Volume Service will be moved to this rate schedule with annual consumption equal to or greater than 16,500 Ccf. A Customer on this rate schedule will be moved to Medium Volume Service with annual consumption less than 13,500 Ccf. The annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|--------------------|
| Customer charge: | \$139.25 per month |
| First 1000 Ccf | \$0.360 per Ccf |
| Over 1000 Ccf | \$0.090 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "LVS" provided on Sheet No. 42.

Issue Date: December 21, 2015

Effective Date: For Service Rendered on and after February 19, 2016

Authorization:

RATE SCHEDULE "HLFS"

HIGH LOAD FACTOR SERVICE

AVAILABILITY

This rate schedule is available to any customer using gas for commercial and/or industrial purposes that would otherwise qualify for Medium Volume Service or Large Volume Service and with winter months' consumption, defined as the months of January through March, being less than thirty-five percent (35%) of their annual consumption. In addition, the customer must use natural gas in at least eleven of the twelve months under review and usage must be fairly evenly distributed throughout the review period. The Company will annually review those Customers receiving service under this rate schedule in order to determine the appropriate firm commercial and/or industrial rate schedule should their annual consumption or winter months consumption warrant such a change. A Customer will remain on this rate schedule as long as winter months' consumption is less than thirty-seven percent (37%) of their annual consumption and the Customer qualifies for Medium Volume Service or Large Volume Service. The annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption or winter months' consumption other than after the annual review.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|-------------------|
| Customer Charge: | \$83.55 per month |
| All gas consumed | \$0.100 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "HLFS" provided on Sheet No. 42.

Issue Date: December 21, 2015

Effective Date: For Service Rendered on and after February 19, 2016

Authorization:

RATE SCHEDULE "RS - 1"

RESIDENTIAL SERVICE - 1

AVAILABILITY

This rate schedule is available to any individually metered customer using gas in a residential dwelling or unit for space heating, cooking, water heating, or other domestic purpose with an annual consumption of 240 Ccf or less. The Company will annually review those customers receiving service under this rate schedule in order to determine the appropriate firm residential rate schedule should their annual consumption warrant such a change. This annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|---|
| Customer Charge: | \$11.75 10.50 per month |
| First 20 Ccf | \$0.6750 0.607 per Ccf |
| Next 30 Ccf | \$0.3100 0.280 per Ccf |
| Over 50 Ccf | \$0.1900 0.170 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers served under this rate schedule are subject to the gas cost rate applicable to Rate Schedule "RS-1" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within ten (10) days of their date.

MINIMUM BILL

The minimum monthly bill under this rate schedule is the customer charge.

Issue Date: ~~December 21, 2015~~**September 2, 2008**
Effective Date: For ~~Service~~**Bills** Rendered on and after ~~February 19, 2016~~**September 3, 2008**
Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RATE SCHEDULE "RS - 2"

RESIDENTIAL SERVICE – 2

AVAILABILITY

This rate schedule is available to any individually metered customer using gas in a residential dwelling or unit for space heating, cooking, water heating, or other domestic purpose with annual consumption of greater than 240 Ccf. The Company will annually review those customers receiving service under this rate schedule in order to determine the appropriate firm residential rate schedule should their annual consumption warrant such a change. A Customer on RS-1 Service will be moved to this rate schedule with annual consumption equal to or greater than 264 Ccf. A Customer on this rate schedule will be moved to RS-1 Service with annual consumption less than 216 Ccf. This annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|---|
| Customer Charge: | \$14.50 <u>13.00</u> per month |
| First 20 Ccf | \$0.645 <u>0.578</u> per Ccf |
| Next 30 Ccf | \$0.355 <u>0.319</u> per Ccf |
| Over 50 Ccf | \$0.145 <u>0.132</u> per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers served under this rate schedule are subject to the gas cost rate applicable to Rate Schedule "RS-2" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within ten (10) days of their date.

MINIMUM BILL

The minimum monthly bill under this rate schedule is the customer charge.

Issue Date: ~~December 21, 2015~~September 2, 2008

Effective Date: For Service Bills Rendered on and after February 19, 2016~~September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RATE SCHEDULE "ERS-1"

EXPANSION AREA RESIDENTIAL SERVICE – 1

AVAILABILITY

This rate schedule is available to any individually metered customer within the southeastern Sussex County, Delaware, expansion area using gas in a residential dwelling or unit for space heating, cooking, water heating, or other domestic purpose with an annual consumption of 240 Ccf or less. The southeastern Sussex County, Delaware, expansion area is defined as the area east of Chesapeake's district regulator station located on Route 9 in Lewes, Delaware, that is connected to Chesapeake's distribution main and any area that is connected to Chesapeake's distribution main behind the three Eastern Shore Natural Gas transmission pipeline City Gates located in Dagsboro, Frankford, and Selbyville, Delaware. The Company will annually review those customers receiving service under this rate schedule in order to determine the appropriate firm residential rate schedule should their annual consumption warrant such a change. This annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|--|
| Customer Charge: | \$16.50 per month |
| First 20 Ccf | \$0.6750 0.607 per Ccf |
| Next 30 Ccf | \$0.3100 0.280 per Ccf |
| Over 50 Ccf | \$0.1900 0.170 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers served under this rate schedule are subject to the gas cost rate applicable to Rate Schedule "RS" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within ten (10) days of their date.

Issue Date: ~~December 21, 2015~~~~November 5, 2013~~
Effective Date: For ~~Service~~~~Bills~~ Rendered on and after ~~February 19, 2016~~~~December 1, 2013~~
Authorization: ~~Order No. 8479 in PSC Docket No. 12-292 dated November 5, 2013~~

RATE SCHEDULE "ERS-2"

EXPANSION AREA RESIDENTIAL SERVICE – 2

AVAILABILITY

This rate schedule is available to any individually metered customer within the southeastern Sussex County, Delaware, expansion area using gas in a residential dwelling or unit for space heating, cooking, water heating, or other domestic purpose with annual consumption of greater than 240 Ccf. The southeastern Sussex County, Delaware, expansion area is defined as the area east of Chesapeake's district regulator station located on Route 9 in Lewes, Delaware, that is connected to Chesapeake's distribution main and any area that is connected to Chesapeake's distribution main behind the three Eastern Shore Natural Gas transmission pipeline City Gates located in Dagsboro, Frankford, and Selbyville, Delaware. The Company will annually review those customers receiving service under this rate schedule in order to determine the appropriate firm residential rate schedule should their annual consumptions warrant such a change. A Customer on ERS-1 Service will be moved to this rate schedule with annual consumption equal to or greater than 264 Ccf. A Customer on this rate schedule will be moved to ERS-1 Service with annual consumption less than 216 Ccf. This annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|--|
| Customer Charge: | \$31.75 per month |
| First 20 Ccf | \$0.6450 <u>0.578</u> per Ccf |
| Next 30 Ccf | \$0.3550 <u>0.319</u> per Ccf |
| Over 50 Ccf | \$0.1450 <u>0.132</u> per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers served under this rate schedule are subject to the gas cost rate applicable to Rate Schedule "RS" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within ten (10) days of their date.

Issue Date: ~~December 21, 2015~~November 5, 2013
Effective Date: For Service~~Bills~~ Rendered on and after February 19, 2016~~December 1, 2013~~
Authorization: ~~Order No. 8479 in PSC Docket No. 12-292 dated November 5, 2013~~

RATE SCHEDULE "GS"

GENERAL SERVICE

AVAILABILITY

This rate schedule is available to any customer using gas for commercial and/or industrial purposes with an annual consumption of less than 4,000 Ccf. The Company will annually review those customers receiving service under this rate schedule in order to determine the appropriate firm commercial and/or industrial rate schedule should their annual consumption warrant such a change. This annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|--|
| Customer Charge: | \$ 28.95 ^{26.00} per month |
| First 20 Ccf | \$ 0.49 ^{50.447} per Ccf |
| Next 30 Ccf | \$ 0.31 ^{00.278} per Ccf |
| Over 50 Ccf | \$ 0.15 ^{50.140} per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "GS" provided on Sheet No. 42.

TRANSPORTATION AND BALANCING RIDER

Transportation service is available to commercial and industrial customers with annual consumption through one or more contiguous meters in a specific geographic location equal to, or greater than, 30,000 Ccf per year that choose to have their own gas transported through the Company's distribution system. Customers purchasing natural gas from a supplier, other than the Company, must have the natural gas delivered to the Company's city gate in accordance with the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the customer is subject to the following Firm Balancing Service Rate applied to all gas consumption

Firm Balancing Service Rate: \$0.081 per Ccf of gas consumed

Issue Date: ~~December 21, 2015~~^{September 1, 2015}

Effective Date: For Service Rendered on and after ~~February 19, 2016~~^{November 1, 2015}—
~~Temporary Basis~~

Authorization: ~~Order No. 8792 in PSC Docket No. 15-1362 dated September 22, 2015~~

RATE SCHEDULE "EGS"

EXPANSION AREA GENERAL SERVICE

AVAILABILITY

This rate schedule is available to any customer within the southeastern Sussex County, Delaware, expansion area using gas for commercial and/or industrial purposes with an annual consumption of less than 4,000 Ccf. The southeastern Sussex County, Delaware, expansion area is defined as the area east of Chesapeake's district regulator station located on Route 9 in Lewes, Delaware, that is connected to Chesapeake's distribution main and any area that is connected to Chesapeake's distribution main behind the three Eastern Shore Natural Gas transmission pipeline City Gates located in Dagsboro, Frankford, and Selbyville, Delaware. The Company will annually review those customers receiving service under this rate schedule in order to determine the appropriate firm commercial and/or industrial rate schedule should their annual consumption warrant such a change. This annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|---|
| Customer Charge: | \$56.00 per month |
| First 20 Ccf | \$0.50000 0.447 per Ccf |
| Next 30 Ccf | \$0.3100 0.278 per Ccf |
| Over 50 Ccf | \$0.1600 0.140 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "GS" provided on Sheet No. 42.

Issue Date: ~~December 21, 2015~~**July 21, 2015**

Effective Date: For ~~Service Bills~~ Rendered on and after ~~February 19, 2016~~**September 1, 2015**

Authorization: ~~Order 8752 in PSC Docket No. 13-383 dated July 21, 2015~~

**RATE SCHEDULE "MVS"
MEDIUM VOLUME SERVICE**

AVAILABILITY

This rate schedule is available to any customer using gas for commercial and/or industrial purposes with an annual consumption generally equal to or greater than 4,000 Ccf and less than 15,000 Ccf. The Company will annually review those Customers receiving service under this rate schedule in order to determine the appropriate firm commercial and/or industrial rate schedule should their annual consumption warrant such a change. A Customer on General Service will be moved to this rate schedule with annual consumption equal to or greater than 4,400 Ccf. A Customer on this rate schedule will be moved to General Service with annual consumption less than 3,600 Ccf. The annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|---|
| Customer Charge: | \$72.40 ^{\$65.00} per month |
| First 200 Ccf | \$0.2500 ^{\$0.227} per Ccf |
| Over 200 Ccf | \$0.1250 ^{\$0.115} per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "MVS" provided on Sheet No. 42.

TRANSPORTATION AND BALANCING RIDER

Transportation service is available to commercial and industrial customers with annual consumption through one or more contiguous meters in a specific geographic location equal to, or greater than, 30,000 Ccf per year that choose to have their own gas transported through the Company's distribution system. Customers purchasing natural gas from a supplier, other than the Company, must have the natural gas delivered to the Company's city gate in accordance with the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the customer is subject to the following Firm Balancing Service Rate applied to all gas consumption

Firm Balancing Service Rate: \$0.091 per Ccf of gas consumed

Issue Date: ~~December 21, 2015~~^{September 1, 2015}

Effective Date: For Service Rendered on and after ~~February 19, 2016~~^{November 1, 2015}
Temporary Basis

Authorization: ~~Order No. 8792 in PSC Docket No. 15-1362 dated September 22, 2015~~

RATE SCHEDULE "EMVS"

EXPANSION AREA MEDIUM VOLUME SERVICE

AVAILABILITY

This rate schedule is available to any customer within the southeastern Sussex County, Delaware, expansion area using gas for commercial and/or industrial purposes with an annual consumption generally equal to or greater than 4,000 Ccf and less than 15,000 Ccf. The southeastern Sussex County, Delaware, expansion area is defined as the area east of Chesapeake's district regulator station located on Route 9 in Lewes, Delaware, that is connected to Chesapeake's distribution main and any area that is connected to Chesapeake's distribution main behind the three Eastern Shore Natural Gas transmission pipeline City Gates located in Dagsboro, Frankford, and Selbyville, Delaware. The Company will annually review those Customers receiving service under this rate schedule in order to determine the appropriate firm commercial and/or industrial rate schedule should their annual consumption warrant such a change. A Customer on Rate Schedule EGS will be moved to this rate schedule with annual consumption equal to or greater than 4,400 Ccf. A Customer on this rate schedule will be moved to rate schedule EGS with annual consumption less than 3,600 Ccf. The annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|--|
| Customer Charge: | \$158.75 per month |
| First 200 Ccf | \$0.2500 0.227 per Ccf |
| Over 200 Ccf | \$0.1250 0.115 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "MVS" provided on Sheet No. 42.

Issue Date: ~~December 21, 2015~~**July 21, 2015**

Effective Date: For ~~Service Bills~~ Rendered on and after ~~February 19, 2016~~**September 1, 2015**

Authorization: ~~Order 8752 in PSC Docket No. 13-383 dated July 21, 2015~~

RATE SCHEDULE "LVS"**LARGE VOLUME SERVICE****AVAILABILITY**

This rate schedule is available to any customer using gas for commercial and/or industrial purposes with an annual consumption generally equal to or greater than 15,000 Ccf. The Company will annually review those customers receiving service under this rate schedule in order to determine the appropriate firm commercial and/or industrial rate schedule should their annual consumption warrant such a change. A Customer on Medium Volume Service will be moved to this rate schedule with annual consumption equal to or greater than 16,500 Ccf. A Customer on this rate schedule will be moved to Medium Volume Service with annual consumption less than 13,500 Ccf. The annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | |
|------------------|--|
| Customer charge: | \$ 139.25 ^{125.00} per month |
| First 1000 Ccf | \$ 0.3600 ^{0.326} per Ccf |
| Over 1000 Ccf | \$ 0.0900 ^{0.083} per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "LVS" provided on Sheet No. 42.

Issue Date: ~~December 21, 2015~~^{September 2, 2008}

Effective Date: For ~~Service Bills~~ Rendered on and after ~~February 19, 2016~~^{September 3, 2008}

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RATE SCHEDULE "HLFS"

HIGH LOAD FACTOR SERVICE

AVAILABILITY

This rate schedule is available to any customer using gas for commercial and/or industrial purposes that would otherwise qualify for Medium Volume Service or Large Volume Service and with winter months' consumption, defined as the months of January through March, being less than thirty-five percent (35%) of their annual consumption. In addition, the customer must use natural gas in at least eleven of the twelve months under review and usage must be fairly evenly distributed throughout the review period. The Company will annually review those Customers receiving service under this rate schedule in order to determine the appropriate firm commercial and/or industrial rate schedule should their annual consumption or winter months consumption warrant such a change. A Customer will remain on this rate schedule as long as winter months' consumption is less than thirty-seven percent (37%) of their annual consumption and the Customer qualifies for Medium Volume Service or Large Volume Service. The annual review process will be based on the twelve months ended August. Customers will not be shifted between rate schedules due to changes in annual consumption or winter months' consumption other than after the annual review.

DELIVERY SERVICE RATES

The following rates for delivering gas to the customer's location apply to all customers served under this rate schedule.

| | | |
|------------------|--------------------------|-----------|
| Customer Charge: | \$83.5575.000 | per month |
| All gas consumed | \$0.1000.087 | per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "HLFS" provided on Sheet No. 42.

Issue Date: ~~December 21, 2015~~^{September 2, 2008}

Effective Date: For ~~Service Bills~~ Rendered on and after ~~February 19, 2016~~^{September 3, 2008}

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~



RULES AND REGULATIONS

GOVERNING THE DISTRIBUTION

AND SALE OF GAS

OF

CHESAPEAKE UTILITIES CORPORATION

IN

NEW CASTLE, KENT & SUSSEX COUNTIES, DELAWARE

Issue Date:

Effective Date:

Authorization:

**CHESAPEAKE UTILITIES CORPORATION
DELAWARE DIVISION**

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Issue Date: September 2, 2008

Effective Date: For Bills Rendered on and after September 3, 2008

Authorization: Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186

**CHESAPEAKE UTILITIES
CORPORATION DELAWARE DIVISION**

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RULES AND REGULATIONS

SECTION I - GENERAL

1.1 FILING AND POSTING

A copy of this Tariff, which is the rates, rules and regulations under which gas service will be supplied by Chesapeake Utilities Corporation to its Customers, is on file with the Public Service Commission of Delaware, and is posted and open for inspection at the offices of the Company. The Tariff is supplementary to any Regulations of that Commission.

1.2 REVISIONS

This Tariff may be revised, amended, supplemented and otherwise changed from time to time in accordance with the Public Service Commission Law of Delaware, and such changes, when effective, shall have the same force and effect as the present Tariff.

1.3 APPLICATION OF TARIFF

The Tariff provisions apply to any party or parties receiving gas service from the Company, or to its successors and assigns, under the rates set forth therein, and the receipt of gas shall constitute the receiver a Customer of the Company as the term is used herein.

1.4 RULES AND REGULATIONS

The Rules and Regulations, filed as a part of this Tariff, are a part of every contract or agreement for service, whether written, oral or implied, made by the Company and govern all classes of service where applicable. Subject to the approval of the Commission, the Company shall have the right to interpret and determine the applicability of such rules and regulations.

1.5 STATEMENT OF AGENTS

No agent or employee of the Company has authority to make any promise, agreement or representation inconsistent with the provisions of this Tariff.

Issue Date: September 2, 2008

Effective Date: For Bills Rendered on and after September 3, 2008

Authorization: Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186

RULES AND REGULATIONS

SECTION II - CURTAILMENT

2.1 GENERAL

In the event that the Company determines that there is insufficient gas supply to meet the demands of the Customers on its distribution system, the Company may, at its sole discretion, curtail service to Customers. Curtailments will be made to maintain supply to its firm sales customers in the priorities set forth below. When curtailment is necessary, sufficient gas will be available to maintain a temperature which will keep the building pipes from freezing and other plant protection use, if possible. Prior to, or in conjunction with curtailment the Company may call for voluntary usage reductions on the part of all Customers.

2.2 DEFINITIONS

Essential Human Needs: Includes residences, apartments, hotels, motels, dormitories, hospitals, nursing homes, police and other institutions essential to the public welfare.

Plant protection use: Minimum volumes of natural gas required to prevent physical harm to the plant facilities' processes or danger to plant personnel when such protection cannot be afforded through the use of an alternative fuel. Plant protection requirements include volumes necessary for the protection of such material in process as would otherwise be destroyed, but does not include deliveries required to maintain production.

2.3 CURTAILMENT PRIORITIES

Curtailment to the extent necessary as determined by the Company, up to and including complete curtailment shall be done in accordance with the following list of priorities, starting with the lowest priority, priority 6.

Issue Date:

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**RULES AND REGULATIONS
SECTION II
(Continued)**

2.3 CURTAILMENT PRIORITIES (continued)

Priority 1: Essential humans needs Customers.

Priority 2: All other customers other than Priority 1 Customers will be curtailed to the extent necessary as determined by the Company.

Priority 3: Firm commercial and industrial Customers using above 4,000 Ccf per year.

Priority 4: Firm commercial and industrial Customers using above 15,000 Ccf per year.

Priority 5: Firm commercial and industrial Customers using above 100,000 Ccf per year.

Priority 6: All interruptible transportation and IBE Customers.

2.4 CURTAILMENT OF CUSTOMER-OWNED GAS

If adequate supply to priority essential human needs Customers is threatened in the Company's judgment, Customer-owned transportation gas may be curtailed in addition to system supply and in the same order of priorities. In the event that Customer-owned gas is diverted for use by higher priority Customers, the Company will reimburse the Customer by paying the cost of the Customers alternative fuel or, if the Customer has no alternative fuel, reimbursement will be at a rate equal to the higher of the Company's weighted average cost of gas (the total cost of natural gas delivered to the Company for system supply divided by the volume delivered) or the Customer's total acquisition cost of gas (including pipeline transportation charges). In the event of a supply shortage which causes the Company to purchase the Customer's gas, the Customer shall make available a copy of its contract for natural gas supply upon request; or in lieu thereof, the Customer shall supply a sworn affidavit specifying Customer's total acquisition cost of gas. In lieu of this provision, the Company may enter into contractual or informal arrangements with transportation Customers or any other parties to obtain supplies to avoid curtailments.

2.5 LIABILITY

The Company shall not be liable for any damages, loss of product, or other business losses suffered by Customers as a result of curtailed gas service, other than the compensation provided in Section 2.4 above. The Company shall not be liable for curtailment as a result of any action by any governmental agency with jurisdiction to regulate, allocate, or control gas supplies or the rendition of service, and regardless of any defect in such law, regulation, or order.

Issue Date:

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RULES AND REGULATIONS

SECTION II (Continued)

2.6 ADDITIONAL LOADS

In the event that additional gas supply becomes limited for any reason, the Company reserves the right to defer supplying gas for new loads in such manner as to cause the least hardship to present or prospective Customers, taking into consideration the volume of natural gas available and the capacities of local mains and facilities. In each of the listed classes, present Customers will be allowed to increase loads before new Customers will be allowed to begin service.

During any period when gas supply is expected to be limited the Company will maintain a Register of New Loads applied for, but not already being served by the Company, in order to assist the Company in forecasting peak demands for its service, and to afford a basis of priority in supplying additional loads to existing as well as to new or prospective Customers.

During any period of restricted gas supply the Company will not supply gas for any equipment unless application for such load was registered with the Company prior to the connection of such equipment, and approval thereof was given by the Company.

The priority in which additional loads will be accepted is:

| | <u>DESCRIPTION</u> | <u>TYPE</u> |
|-----|---|---|
| (1) | Non-space heating load Peak day less than 1,000 cu. ft. | Residential |
| (2) | Non-space heating load Peak day less than 1,000 cu. ft | Commercial Industrial |
| (3) | Space heating load Peak day less than 2,000 cu. ft. | Residential Commercial Industrial |
| (4) | Dwelling Units - Home or Apartments Individually Billed Not to exceed 25 units at one location. | Residential |

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RULES AND REGULATIONS

**SECTION II
(Continued)**

2.6 ADDITIONAL LOADS (continued)

| | <u>DESCRIPTION</u> | <u>TYPE</u> |
|------|---|--------------------------|
| (5) | Dwelling Units - Home or Apartments Master Metered Not to exceed 25 units at one location | Commercial |
| (6) | Non-space heating load Peak day not to exceed 10,000 cu ft | Commercial Industrial |
| (7) | Space Heating Load Peak day less than 10,000 cu. ft. | Commercial Industrial |
| (8) | Same as (4) above except in increments of 26 to 100 units at one location. | |
| (9) | Same as (5) above except in increments of 26 to 100 units at one location. | |
| (10) | Same as (4) above except in increments of over 100 units at one location. | |
| (11) | Same as (5) above except in increments of over 100 units at one location. | |
| (12) | All other commercial and industrial loads. | |

The Company reserves the right to establish priority of loads in accordance with volume within each category above.

The Company reserves the right to allocate gas to various priority categories listed above based on estimated gas sales and gas supply and to make adjustments as actual figures vary from the estimate.

Issue Date:
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RULES AND REGULATIONS

**SECTION II
(Continued)**

2.6 ADDITIONAL LOADS (continued)

When anticipated gas supplies are not sufficient to service all new loads applied for in one of the above categories, priority will be given in the order in which application was registered with the Company, provided the new load is connected within a reasonable time after notice from the Company that it may be served.

When the evidence available to the Company reasonably indicates that a Customer has connected additional load without registering same or in violation of the Company's notice that it may not be connected, the Company will discontinue all service to such Customer, upon ten (10) days' written notice, until such additional load has been disconnected.

Issue Date:
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RULES AND REGULATIONS

SECTION III - APPLICATION FOR SERVICE

3.1 APPLICATION

Application for gas service may be made through the local office of the Company or authorized agent, by:

- (a) Verbal or telephonic request to a business office of the Company, or
- (b) Electronic request to the Company's web site (www.chpkgas.com), or
- (c) if required by the Company, by submission to the Company a completed Gas Delivery Service Application (certain Applicants may be required to execute a Transportation Service Agreement).

The Company reserves the right to require the Applicant before any gas is delivered, to execute an application at the local office with proper identification. The application does not constitute a commitment by the Company to serve the Applicant.

3.2 RIGHT TO REJECT

The Company may place limitations on the amount or character of service it will supply, or may reject applications for any of the following reasons:

- (a) Until the Customer has complied with the state and municipal regulations governing gas service.
- (b) If the Company does not have adequate facilities to render the service desired.
- (c) If such service is of a character that it is likely to unfavorably affect service to other Customers.
- (d) If, in the judgment of the Company, the Applicant's installation of piping or gas equipment is hazardous, or of such a character that satisfactory and safe service cannot be rendered.
- (e) If an extension of street main, except as set forth under Section 6 - Extensions, is required to furnish such service.

Issue Date:

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RULES AND REGULATIONS

SECTION III (Continued)

3.2 RIGHT TO REJECT (Continued)

- (f) When it is necessary to conserve the supply of gas (See Section 2.3 Curtailment Priorities and 2.6 Additional Loads.)
- (g) Customer's failure to provide a deposit to insure payment of bills, where requested by the Company under the provisions of Section 13.2.
- (h) Customer's failure to make such payment as may be required under Section 6 as a condition of extension of supply facilities.
- (i) Customer's failure to pay the Connection Charge, Reconnection Charge or Seasonal Customer Charge.
- (i) Service at new location will be rendered only when all bills for gas service to the Customer at any other locations have been paid.
- (j) Non-compliance with provisions of this Tariff.

3.3 ACCEPTANCE

Acceptance of gas service by the Customer shall constitute an agreement to accept service under these Rules, Regulations and Rates as amended from time to time, the Orders or Rules of the Public Service Commission of Delaware, the Laws of the State of Delaware and the Laws of the United States of America.

Issue Date:
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RULES AND REGULATIONS

SECTION III (Continued)

3.4 CUSTOMER TO SPECIFY TIME WHEN SERVICE IS CONNECTED

A Customer shall give two (2) business days' notice to the Company for gas service to be connected during normal business hours, under normal operating conditions. Business days shall mean Monday through Friday excluding Federal Banking Holidays. As a safety precaution, the Customer, or an authorized representative of the Customer of at least eighteen (18) years of age, shall be present at the premises for gas service to be connected. If, due to unforeseen or emergency circumstances, the Company is not able to meet the two (2) business day connection schedule, the Customer shall be informed, and a new arrangement made. The Connection Charge provided on Sheet No. 46 (Miscellaneous Customer Charges) shall apply to all gas service connections. If necessary for the Customer's convenience that the connection be made after normal working hours, the After Hours Connection Charge provided on Sheet No. 46 (Miscellaneous Customer Charges) shall apply.

3.5 POINT OF DELIVERY

- (a) The point of delivery of gas to a Customer shall be at the outlet side of the meter connection, Title to Company owned gas shall pass to the Customer at this point. The use of Service on two or more separate meters will not be combined for billing purposes.
- (b) (Exception) Combined billings for registrations of multiple meters installed on a customer's premises is permitted only where such multiple meters are installed for the convenience of the Company.

3.6 CHARACTER OF GAS

The gas to be served will be natural gas with a specific gravity of approximately .60, a minimum value per cubic foot of one thousand (1,000) BTU, and that is in conformance with the quality specifications of transporters delivering such gas to the Company's Receipt Points, or such other gas as may be approved by the Public Service Commission of Delaware. The Company shall have the right to supply stand-by or peak shaving gas of similar characteristics when necessary.

Issue Date:

Effective Date:

Authorization:

RULES AND REGULATIONS

SECTION IV – CUSTOMER’S INSTALLATIONS

4.1 INFORMATION FROM CUSTOMER

Anyone desiring to equip their premises for the use of gas shall communicate with the Company personally, or through their contractor or other authorized agent, giving the exact location of the premises and details of all gas consuming equipment to be installed.

4.2 POINT OF CONNECTION

The Company will designate the point where the applicant would, if served, be required to terminate their piping for connection to the lines of the Company. The furnishing of such information does not constitute an agreement, or obligation, on the part of the Company to render service.

4.3 METER SPACE

The applicant shall provide, free of expense to the Company, a space satisfactory to the Company for meters, regulators or other equipment of the Company which is necessary for the rendering of adequate and safe service. The Company reserves the right to establish the standard as to the location of such space in accordance with pressure conditions, volumes, and other pertinent factors.

4.4 METER LOCATION

The Company shall have the right to determine the location of its meters, which must be placed where they will be easily accessible, and the Customer or owner of the building shall provide at all times, free of expense to the Company, proper space for the Company’s meters. Likewise, the Customer shall not permit materials of any character to be piled up or heaped around the meter location. The Customer shall reimburse the Company for the loss of, or any damage to, its meters and meter connections, or other property of the Company while located on the Customer’s premises, arising out of or caused by the Customer’s negligence, carelessness; or that of the Customer’s agents, employees, members of the Customer’s household, or any person upon the Customer’s premises under or by authority of the Customer’s consent or sufferance.

Issue Date:

Effective Date:

Authorization:

RULES AND REGULATIONS

SECTION IV (Continued)

4.5 METER CONNECTIONS

The Company will own, furnish, and maintain the meter, regulator, meter connection, electronics, remote reading device, if any, and all other appurtenant equipment required to measure the gas supplied to the Customer, and will supply gas only through a meter furnished and owned by the Company. The Company must be notified when the Customer desires to have the meter installed, changed or removed.

4.6 TEMPORARY SERVICE

The Customer shall pay the cost for all material, labor and all other necessary expense incurred by the Company in supplying gas service to the Customer for any temporary purpose or use, and shall pay the cost of removing material after service is discontinued, in addition to the regular payments for gas used. The Company will credit the Customer with the reasonable salvage value of any material recovered.

4.7 SERVICE LINES

The Company will own and maintain at its expense, the service line to the point of connection designated by the Company. (See Section 6.1 Service Connections).

4.8 HOUSE PIPING

Prior to the installation of house piping by the Customer in new or altered premises, inquiry should be made of the Company to determine the requirements, sizes of pipe, quality and other specifications.

Customer's installation shall be installed at the Customer's expense and shall be maintained by the Customer in compliance with applicable codes.

Issue Date:

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RULES AND REGULATIONS

SECTION IV (Continued)

4.9 INTERFERENCE WITH COMPANY FACILITIES

The Customer shall not open, tamper or interfere with, in any manner, the service line, regulators, or safety appliances installed in connection with service provided to the Customer. The Company's main, service line, service cock, curb box and meter shall not be tampered or interfered with at any time. In the event of the Company's meters or other property being tampered or interfered with, the Customer being supplied through such equipment shall pay the amount which may be reasonably estimated to be due for service used but not registered on the Company's meter, and for any repairs, replacements or changes in facilities required, as well as for costs of inspections, investigations and protective installations.

4.10 RESPONSIBILITY OF CUSTOMER

This Company's ownership and responsibility terminates at the meter outlet. The Customer is warned of the risk of damage to property and the possibility of fire or personal injury resulting from improper house piping and manner of attachment or use and maintenance of gas appliances, fixtures, and apparatus, and is advised to permit no one except experienced and capable pipe fitters to install or to make any changes, alterations, additions or repairs to any part of the Customer's installation. The Company will not be liable for any injury or damage or loss of gas caused by reason of defects in any portion whereof.

Issue Date:

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RULES AND REGULATIONS

SECTION V - TESTING AND INSPECTION OF CUSTOMER'S PIPING

5.1 REQUIREMENT

Prior to providing gas service, the Customer's facilities and appliances must be in accordance with the national and local code requirements.

5.2 COMPANY'S RIGHT TO INSPECT

The Company shall have the right, but shall not be obliged, to inspect any installation before gas is introduced or at any later time, and reserves the right to reject any piping or appliances not in accordance with the Company's standard requirements, or with any national and local code requirements; but such inspection, or failure to inspect, or to reject, shall not render the Company liable or responsible for any loss or damage, resulting from defects in the Customer's installation, piping or appliances, or from violation of the Company rules, or from accidents which may occur upon the premises of the Customer.

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Effective Date:
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RULES AND REGULATIONS

SECTION VI – SERVICE INSTALLATIONS AND MAIN EXTENSIONS

6.1 SERVICE INSTALLATIONS

The Company will install the service line from its existing distribution main to the Customer's meter location at its expense. However, if the service line exceeds seventy-five (75) feet in length, the Company's initial investment in the entire service installation shall be limited to six (6) times the related estimated annual base tariff revenue excluding all fuel costs ("net revenue") from the Customer. The amount of the investment that exceeds the six (6) times net revenue test for the service installation shall be paid by the Customer in accordance with the terms of Section 6.3.

Service Installations, as used in this section for purposes of the six (6) times net revenue test, refers to the costs associated with the service line piping, meter installation and associated materials from the tap on the Company's gas distribution main system up to and including the Customer's meter.

6.2 MAIN EXTENSIONS

Main extensions to the Company's gas system shall be provided, owned and maintained under the terms and conditions stated herein. Main extensions, as used in this section for purposes of the economic evaluation criteria, refers to the cost of gas distribution mains and associated materials that must be constructed along public streets, roads and highways, or on private property from the Company's existing gas distribution main system to the initiation of the service line. Main extensions are limited to the extent of new investment warranted by the anticipated revenues as stated in this Section VI.

New Residential Development

The economic evaluation criteria for installing natural gas service to the new residential development will be based on an Internal Rate of Return Model ("IRRM") with certain predetermined conditions and guidelines. The applicable procedures and guidelines in the implementation of the IRRM are on file with and have been approved by the Public Service Commission of Delaware. The procedure used to determine whether a financial guarantee will be required from a Customer(s) is part of the IRRM methodology on file with the Commission.

Issue Date:

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RULES AND REGULATIONS

**SECTION VI – SERVICE INSTALLATIONS AND MAIN EXTENSIONS
(Continued)**

6.2 MAIN EXTENSIONS (Continued)

When evaluating potential multi-family housing projects, if the IRRM demonstrates that the anticipated revenues warrant an investment greater than the cost of the main extension and service connection, then the Company may, at its sole discretion, provide a contribution to the Customer to offset costs incurred for the installation of gas piping and venting in the premise. The contribution provided by the Company may not exceed the amount that is warranted by the anticipated revenues and, in any event, may not exceed the actual cost for installation of gas pipe and venting in the premise. A project will be determined to be a multi-family project if there are at least four (4) individually metered dwelling units in one premise. When providing a contribution to offset costs related to the installation of gas piping and venting, the Customer bears all responsibility for proper installation and maintenance of all pipe beyond the Company's meter.

Existing Residential Developments

The economic evaluation criteria for installing natural gas service to an existing residential development will be based on an Internal Rate of Return Model ("IRRM") with certain predetermined conditions and guidelines. The applicable procedures and guidelines in the implementation of the IRRM are on file with and have been approved by the Public Service Commission of Delaware. The procedure used to determine whether a financial guarantee will be required from a Customer(s) is part of the IRRM methodology on file with the Commission.

Commercial and Industrial Main Extensions

The economic evaluation criteria for installing natural gas service to commercial and industrial Customers, including transportation and non-firm Customers, will be the six (6) times net revenue test based on the commercial and industrial Customers' estimated level of annual non-fuel revenue. The estimated annual non-fuel revenue is defined as the estimated annual base Tariff revenue or delivery service revenue excluding all fuel related costs for the respective Customer. If the estimated investment in the facilities necessary to provide gas service exceeds six (6) times the related annual non-fuel revenue from the respective Customer(s), the Customer(s) shall provide a financial guarantee in accordance with the terms of Section 6.3.

The economic evaluation criteria for negotiated contracts for compression services will be the IRRM and will include the Company's cost of installing Company-owned and maintained compression facilities to meet the pressure demands specified by the Customer.

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RULES AND REGULATIONS

SECTION VI – SERVICE INSTALLATIONS AND MAIN EXTENSIONS (Continued)

6.3 FINANCIAL GUARANTEES

Financial guarantees may be made by a Contribution in Aid of Construction (“CIAC”), a Customer Advance, a Letter of Credit, or other financial guarantee at the Company’s discretion.

Should the Customer provide a Customer Advance, the Company will provide, in a written agreement with the Customer, for refunds (without interest) of all, or part, of the monies advanced by the Customer in connection with the extension and the applicable economic evaluation criteria. Refunds to the Customer shall extend over a term of years, not to exceed six (6) years, upon such basis or conditions as may be mutually agreeable to the Company and the Customer, and specified in the written agreement. In no case shall the total refund be greater than the Customer’s deposit. Any portion of the deposit remaining after the expiration of the term as specified in the written agreement shall be retained by the Company and credited as a Contribution In Aid of Construction.

Should the Customer provide a Letter of Credit or other financial guarantee, the estimated revenue attributable to the extension shall be examined prior to the expiration of the Letter of Credit or other financial guarantee. The Company may either draw on the Letter of Credit or other financial guarantee or require that it be renewed, where a continued financial guarantee is still required.

6.4 RIGHT TO DETERMINATION

In each and every situation where the Company and the prospective Customer cannot agree as to the necessity for a financial guarantee to be borne by the prospective Customer, the prospective Customer will be advised by the Company of the right to have the matter determined by the Public Service Commission of Delaware under 26 Del Code, Section 203.

Issue Date:

Effective Date:

Authorization:

RULES AND REGULATIONS

**SECTION VI – SERVICE INSTALLATIONS AND MAIN EXTENSIONS
(Continued)**

6.5 OWNERSHIP AND MAINTENANCE

The Company shall own, maintain and renew all its equipment, between the main and the outlet side of the meter connection.

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Effective Date: For Bills Rendered on and after December 1, 2013

Authorization: Order No. 8479 in PSC Docket No. 12-292 dated November 5, 2013

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RULES AND REGULATIONS

SECTION VII - RIGHTS-OF-WAY/OR EASEMENTS

7.1 RIGHTS-OF-WAY AND/OR EASEMENTS

The Applicant(s) requesting service shall furnish, without expense to the Company, and to the Company's satisfaction, rights-of-way and/or easements necessary for the supply of service or shall agree to reimburse the Company for expense incurred in the procurement of the necessary rights-of-way and/or easements. The Company shall first exercise reasonable efforts to procure any necessary rights-of-way and/or easements from the land owner for nominal consideration or without charge to the Company and the Applicant(s) requesting service.

7.2 TERM AND RENTALS

When, to serve a Customer, it is necessary to extend the Company's facilities over the property of another, the Customer shall accept service for such term as is provided in the permit or agreement covering the location and maintenance of such facilities on the land or property of others. The Customer may be required to reimburse the Company for any and all special, or rental, charges that may be made for such rights by said permit or agreement.

7.3 GRADING

Rights-of-way, easements and service routes must be cleared and graded to within six (6) inches of final grade by the Applicant including certification by the Applicant that such grade has been achieved before the Company will commence construction. Such clearing and grading must be maintained by the Applicant during construction by the Company.

7.4 CHANGE IN GRADE

If subsequent to any agreement to construct by the Company, the clearance or grade is changed in such a manner as to require relocation of pipelines or other facilities, the cost of such relocation shall be borne by the Applicant, or the Applicant's executor, administrator, heir or successor.

7.5 DELAYS

Application for service from an extension to be constructed where a right-of-way and/or easement is not owned by the Company, will only be accepted subject to delays incident to obtaining a satisfactory right-of-way and/or easement.

Issue Date:

Effective Date:

Authorization:

RULES AND REGULATIONS

SECTION VIII - COMPANY EQUIPMENT ON CUSTOMER'S PREMISES

8.1 MAINTENANCE

The Company shall keep in repair and maintain its own property installed on the premises of the Customer.

8.2 RESPONSIBILITY OF CUSTOMER

The Customer shall not cause damage to the equipment of the Company on the Customer's premises, and shall not permit any person, except a Company employee having proper Company identification, to break any seals upon, or do any work on any meter, service pipe or other equipment of the Company located on the Customer's premises.

8.3 TAMPERING

In the event of the Company's meters or other property being tampered or interfered with, the Customer being supplied through such equipment shall pay the amount which may be reasonably estimated to be due for service used but not registered on the Company's meter, and for any repairs, replacements or changes in facilities required, as well as for costs of inspections, investigations and protective installations.

8.4 ACCESS TO PREMISES

The Company, or its authorized agents, shall have access at all reasonable times to the property or premises in or on which gas is used to determine if the gas is being carried, distributed and burned in a proper and safe manner and in accordance with these Rules and Regulations, or to read, inspect and test the meter or house lines and other appliances, equipment or facilities. Refusal on the part of the Customer to allow access to the Customer's premises shall constitute sufficient cause for turning off the gas supply to such premises. (See Section 14.1).

8.5 RELOCATION OR ALTERATION OF COMPANY-OWNED FACILITIES

Any relocation or alteration of Company-owned facilities to furnish gas service to Customers for the convenience and benefit of the Company shall be paid for by the Company; however, any such changes occasioned or necessitated by any action of the Customer, or owner of the property if the Customer is a lessee, may be made only after prior approval of the Company, and shall be at the expense of the Customer or owner.

Issue Date:

Effective Date:

Authorization:

RULES AND REGULATIONS

SECTION IX - SERVICE CONTINUITY

9.1 REGULARITY OF SUPPLY

The Company will use reasonable diligence to provide a continuous, regular and uninterrupted supply of gas service; but does not and cannot guarantee a constant supply and should the supply be interrupted by the Company for the reasons set forth in Section II, entitled "Curtailment" or for the purpose of making repairs, changes, or improvements, in any part of its system for the general good of the service or the safety of the public, or should the supply of service be interrupted, or fail, by reason of accident, strike, legal process, State or Municipal interference, lack of sufficient gas supply, mechanical failure, or any cause whatsoever, beyond its control, the Company shall not be liable for damages, direct or consequential, resulting from such interruption or failure.

9.2 NOTICE OF TROUBLE

The Customer shall notify the Company, immediately, should the service be unsatisfactory for any reason, or should there be any defects, leaks, trouble, or accident, affecting or resulting from the supply of gas.

9.3 PREARRANGED INTERRUPTION OF SERVICE

Whenever it is necessary to interrupt service for work on mains or other equipment, such work shall be done, as far as practicable, at a time that will cause the least inconvenience to the Customer. The Customer(s) to be affected by such interruption shall, if practicable, be notified in advance.

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Authorization: Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186

RULES AND REGULATIONS

SECTION X - CUSTOMER'S USE OF SERVICE

10.1 PRECAUTIONS TO BE TAKEN BY CUSTOMER

The responsibility of detection of defects and leaks on the Customer's premises is upon the Customer; defects among other things, shall mean failure or deficiency of gas, irregular supply, leakage and excessive pressure. In case of detection of a leak within the Customer's premises, the Customer should

- Leave the home or building immediately and go upwind of the suspected leak.
- Immediately call the Company's local emergency telephone number or 911 from a cellular phone outside the home or building, or from a neighboring location, to report the suspected gas leak.
- Not use their home telephone, turn on or off any electrical switches, light a match or do anything that might create a spark or flame.
- Not re-enter the building where the suspected leak is until emergency officials give the okay.

. When gas has been shut off because of a leak in the house lines or fixtures or other hazardous conditions of service, it shall not be turned on again until such leak or other hazardous conditions have been repaired and made safe either by a competent plumber or gas fitter. In the event of failure or deficiency of gas or excessive pressure, the Customer shall notify the Company and be governed by instructions or assistance received from the Company.

10.2 PRUDENT USES OF GAS

A Customer should always make prudent use of gas.

Upon notice by the Customer, the Company will investigate reports of suspected gas leakage and improper functioning of gas appliances.

In the event that gas passes through the meter as a result of the Customer's negligence or malfunctioning of the Customer's piping or appliances, no credit will be issued, unless such use is a result of fault or neglect of agents of the Company.

10.3 SALES OF GAS BY CUSTOMER

The Customer shall not directly or indirectly sell, sublet, assign or otherwise dispose of the gas or any part thereof. Purchase of gas for use by tenants located on the Customer's property, when the cost to the tenant of such gas is included in the normal rental charge for occupancy of the premises, shall not be considered as resale.

Issue Date:

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RULES AND REGULATIONS

SECTION X (Continued)

10.4 SERVICE TO CUSTOMER'S APPLIANCES

The Company shall investigate complaints of gas leaks or odors at any time without charge. The Company shall have the right, but shall not be obliged, to inspect any installation before gas is introduced or at any later time, and reserves the right to reject any piping or appliances not in accordance with the Company's standard requirements, or with any national and local code requirements; but such inspection, or failure to inspect, or to reject, shall not render the Company liable or responsible for any loss or damage, resulting from defects in the Customer's installation, piping or appliances, or from violation of the Company rules, or from accidents which may occur upon the premises of the Customer.

10.5 FLUCTUATIONS

Gas service must not be used in such a manner as to cause unusual fluctuations or disturbances in the Company's supply system, and in the case of a violation of this rule, the Company may discontinue service, or require the Customer to modify their installation and/or equip it with approved controlling devices.

10.6 LIABILITY FOR DAMAGES

The Company shall not be liable for any injury to persons or damage to property arising or occurring in any manner whatsoever from the misuse of gas.

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RULES AND REGULATIONS

SECTION XI - MEASUREMENT

11.1 DEFINITION OF A CUBIC FOOT

a. Low Pressure Sales - Standard delivery to the Customer is at low pressure, and for those meters not having temperature correcting devices which correct to a temperature of sixty (60) degrees Fahrenheit, a cubic foot of gas shall be that amount of gas which occupies a volume of one cubic foot at the time metered and under the conditions existing at the Customer's meter.

b. Other Than Low Pressure Sales As Under (a) Above - When at the discretion of the Company, gas is supplied at higher than standard delivery pressure, measurement may be by a meter equipped with a base pressure corrector and the metering is continuously, automatically, and uniformly corrected from the absolute delivery pressure (14.73 atmospheric pressure) in pounds per square inch, to a pressure base of 14.95 lbs. per square inch, at the temperature existing at the meter. Meters may be equipped with a base pressure and temperature corrector and the metering is continuously, automatically and uniformly corrected from the absolute delivery pressure of 14.73 absolute pressure in pounds per square inch to a pressure base of 14.95 lbs. per square inch, and to a temperature of sixty (60) degrees Fahrenheit.

11.2 MEASUREMENT OF GAS

Except as herein otherwise provided, the measurement of gas service shall be by meters furnished and installed by the Company. The Company will furnish each Customer with a meter of such size and type as the Company may determine will adequately serve the Customer's service requirements, and may from time to time, change or alter the equipment to provide for accurate measurement.

Each meter shall be calibrated to serve gas within the tolerance as specified by the Public Service Commission of Delaware. Registration shall be in cubic feet or multiples thereof depending on service classification.

If any correction factor is applied to any meter, this factor shall be marked on such meter.

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SECTION XI MEASUREMENT (Continued)

11.2 MEASUREMENT OF GAS (Continued)

The Company shall install, at the Company's expense, a remote reading device on all Customer's served under the LVH, HLFS or Interruptible Transportation Service Rate Schedules with annual consumption of at least one hundred thousand (100,000) Ccf annually. All remote reading devices shall be owned, installed and maintained by the Company. When requested by a Customer below the annual consumption level above, and approved by the Company, a remote reading device may be installed at a cost payable by the Customer. In all cases the Customer shall, at the Customer's expense, provide and maintain electrical power and telephone service to the remote reading device location.

A periodic verification reading shall be taken on the meter and the remote reading device. The Company shall notify the Customer when the periodic verification is required. The Company shall determine the frequency of such verification based on the technical characteristics of the installed equipment and its in-service performance.

In cases of a measurement dispute related to the remote reading device, the Company's meter may be used as the final determinant in measuring consumption.

11.3 METERS NOT AVAILABLE

In cases where meters are not available due to circumstances beyond the control of the Company, and the necessity for rendering gas service to the Customer is urgent, the Company may, after proper authorization by the Commission and by written agreement with the Customer, commence service and render bills temporarily on the basis of estimated gas consumption.

11.4 METER READING INTERVALS

The Company will endeavor to make its regular meter reading and/or estimated meter reading as nearly as reasonably possible at scheduled monthly intervals.

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RULES AND REGULATIONS

**SECTION XI MEASUREMENT
(Continued)**

11.5 ESTIMATED USAGE

The Company may render estimated bills when (1) no meter is installed, as provided above, or (2) when a meter is installed but the scheduled meter reading cannot be obtained due to the inability of the Company's agent or representative to gain access to the meter location at the time scheduled, or (3) in case any meter or measuring device for any reason fails to register for any period of time the full consumption by a Customer, (See Section XII Meter Tests), or (4) the Company is unable to obtain a meter reading for causes beyond its control.

Estimated readings shall be based upon prior consumption at the particular location for a similar period of time and may be adjusted for current conditions. The Customer shall be obligated to pay the bill based on the estimated consumption as though the same was based on an actual meter reading, and failure to so pay shall subject the Customer and the Customer's service to the penalties herein provided. Bills based on estimated readings shall be subject to adjustment for any unusual circumstances found to have affected the quantity of gas used, or for obvious errors in estimates, which adjustments shall be made not later than the next subsequent bill rendered the Customer, or that period of time when an actual reading can be obtained.

The Company will cooperate with the Customer to schedule meter readings; however, in those instances where the Company's agent or representative is unable to gain access to the Customer's premises, during the regular scheduled working hours, to obtain a meter reading, the number of estimated readings shall be limited to three (3) consecutive months, and the Customer's service thereafter, is subject to discontinuance.

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RULES AND REGULATIONS

SECTION XII - METER TESTS

12.1 METER TESTS

All meters shall be tested periodically by the Company in compliance with the Rules of the Commission and at the Company's expense.

12.2 ACCURACY OF GAS METERS

When any test of a meter by the Company or by the Commission shows such meter to have an average error of more than two percent (2%), and no meter tampering has occurred, the following provisions for the adjustment of bills shall be observed:

Fast Meters

Unless the date of the beginning of inaccuracy shall be known, it shall be assumed that the over-registration existed for a period of three (3) years or a period equal to one-half (1/2) of the time since the meter was last tested, whichever is less.

If the meter is found to be over-registering, the Company shall make a refund to the last Customer of record receiving service through the meter for the amount which shall have been charged in excess of that which would have been charged had the meter registered with one hundred percent (100%) accuracy, provided the refund exceeds one dollar (\$1). The refund will be computed upon the assumption that the meter was registering one hundred percent (100%) accurately prior to the beginning of the period of inaccuracy or the period of adjustment defined in the preceding paragraph. The refund shall be for the period that the last Customer received service through the meter, but for not more than the periods referred to in this Section 12.2.

Slow Meters

If the meter is found to under-register, or is slow, the Company may bill the Customer one-half (1/2) of the unbilled undercharge for a period of twelve (12) months, unless the meter has been tested within that twelve (12) month period, in which event the Company may bill the Customer one-half (1/2) of the unbilled undercharge for the period since the meter was last tested. If the amount of under-registration is less than five dollars (\$5), the bill will not be adjusted. Installment payments will be arranged equal to the number of months the account was billed in error in the event additional charges are due the Company, and the installment payments are due and payable in addition to the Customer's regular monthly natural gas service bill.

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RULES AND REGULATIONS

SECTION XII (Continued)

12.2 ACCURACY OF GAS METERS (Continued)

Non-Registering Meters

If the meter is found to be not registering, or is stopped, the Company may estimate, and bill the Customer the proper charge for the unregistered service by reference to the Customer's consumption during similar periods. Except in the case of tampering, theft, or unauthorized use, the estimate shall cover a period of not more than six (6) months. Installment payments will be arranged equal to the number of months the account was billed in error in the event additional charges are due the Company, and the installment payments are due and payable in addition to the Customer's regular monthly natural gas service bill.

12.3 REQUEST TESTS

Upon request by a Customer and at no charge the Company shall make a test of the accuracy of registration of the meter serving that Customer, providing that such tests need not be made more frequently than once in eighteen (18) months.

RULES AND REGULATIONS

SECTION XIII - PAYMENT TERMS

13.1 INITIAL RATE SCHEDULE ASSIGNMENT

Subsequent to receiving an application for Gas Delivery Service and prior to activating such service, the Company shall estimate the annual usage of the Customer (based upon the connected gas consuming appliances or equipment) for the purpose of the initial assignment of a Rate Schedule. Where selection of the most favorable schedule is difficult to predetermine, the Company shall, at the request of the Customer, assist the Customer in selecting a Rate Schedule. Subsequent to service activation, the Customer shall be given reasonable opportunity to change to another Rate Schedule, but the Company shall not be required to make refunds for any previous billing under any Rate Schedules selected by the Customer prior to the time of receipt of a written notice from the Customer requesting to change to another Rate Schedule.

13.2 ESTABLISHMENT OF CUSTOMER CREDIT

The Company may require a prospective Customer to satisfactorily establish credit before Gas Delivery Service will be initiated. Such establishment of credit shall not relieve the prospective Customer from complying with the Company's provisions herein for prompt payment of bills. Credit will be deemed so established, and no deposit required, if any one of the following criteria is satisfied:

- (a) The Customer has been a Customer of the Company or other similar Delaware utility in the past two (2) years and;
 - (1) paid the final bill when due, and
 - (2) did not on more than two (2) occasions during the last twelve (12) consecutive months have a bill unpaid after a reasonable period of time after the due date, and
 - (3) did not have service discontinued for non-payment, and
 - (4) can provide the Company with a letter from the last utility substantiating a good payment history; or
- (b) The Customer owns or is purchasing the residence for which the gas service is requested; or,
- (c) The Customer can provide a guarantor satisfactory to the Company. This guarantee shall be in writing and must continue in full force and effect for one (1) year from installation date of the service or until Customer's credit is otherwise established, or
- (d) The Non-residential Customer possesses and maintains an Experian Intelliscore of sixty (60) or above, or

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RULES AND REGULATIONS

**SECTION XIII
(Continued)**

13.2 ESTABLISHMENT OF CUSTOMER CREDIT (Continued)

- (e) The Non-residential Customer possesses and maintains at least an investment grade bond/long-term debt rating from either Standard and Poor's or Moody's. Comparable ratings may be considered from other nationally recognized rating organizations acceptable to the Company. In the event a Customer, whose annual gas consumption exceeds one hundred thousand (100,000) Ccf, does not possess a debt rating or the rating is below investment grade, credit may be established, at the sole discretion of the Company, by the Customer's demonstration of adequate financial strength and stability. The Company may evaluate the Customer's creditworthiness by review of at least two (2) years audited financial statements, accompanied by the opinion of an independent certified public accountant or chartered accountants of recognized national or regional standing, and such other known or discovered factors relating to the Customer's creditworthiness.
- (f) The Customers for which credit is established pursuant to this Section 13.2 are subject to periodic review by the Company to assure that no material changes adversely affecting the Customer's creditworthiness have occurred. In the event a material change has occurred, or the Customer has paid its account with a check dishonored by a bank, the Company may request that credit be established by (i) cash deposit, or (ii) irrevocable letter of credit from a bank, or (iii) surety bond.
- (g) Notwithstanding anything stated herein to the contrary, a security deposit shall be required if the Customer has been disconnected by the Company for non-payment within the nine (9) months prior to the Customer's application for service.

When none of the above conditions are met or service has been discontinued (see Section 14.1-b) the Customer shall make a deposit with the Company subject to the following:

- (a) Amount of deposit required may not be more than two-twelfths (2/12) of the estimated charges for the ensuing twelve (12) months, nor less than five dollars (\$5). Residential deposits in excess of one hundred dollars (\$100) may be made with an initial deposit of one hundred dollars (\$100) with the remainder to be paid over the ensuing four (4) week period.
- (b) Interest on a deposit shall be simple interest at an annual rate equal to the average of the percent yields of the 1-year Treasury constant maturities for September, October, and November of the preceding year. Interest will be paid at the time the deposit is returned. The deposit ceases to draw interest on the date service is terminated, or in the case of good credit, the date the deposit is processed for refund. No interest will be paid on deposits held less than ninety (90) days.

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RULES AND REGULATIONS

**SECTION XIII
(Continued)**

13.2 ESTABLISHMENT OF CUSTOMER CREDIT (Continued)

- (c) Deposits will be refunded to residential Customers following payment of twelve (12) consecutive bills without arrears.
- (d) Refund of deposit upon discontinuance of service will occur promptly and automatically for the deposit and accrued interest less the Customer's final outstanding balance. A transfer of service from one premises to another within the service area may not be deemed a discontinuance of service.
- (e) At the option of the Company a deposit plus accrued interest may be refunded in whole or in part, at any time earlier than the times prescribed in this Tariff.
- (f) Commercial deposits will be returned when, in the Company's judgement, such deposit is no longer required.

13.3 BILLING PERIOD

Rates are stated on a monthly basis and bills are rendered monthly following the supply of service based on meter readings to the nearest one hundred (100) or one thousand (1,000) cubic feet, depending on the applicable Rate Schedule, scheduled at approximate monthly intervals of twenty-eight (28) to thirty-four (34) days.

An initial period of less than ten (10) days is included in the next month's billing. If the period is more than ten (10) days, a bill is rendered at the regular billing date. A final period, consisting of the number of days from the most recent meter reading to turn off, will be billed as one (1) month. The Customer is liable for service taken after notice to terminate their service until the meter is read and gas shut off. The final bill for service is due and payable upon presentation. Credit balances in a final bill that are five dollars (\$5) or more will be refunded to the Customer.

13.4 PAYMENT PERIOD

. The rates are contingent upon prompt payment. The final date for payment will not fall on any Saturday, Sunday or holiday, and will be due within twenty (20) days of the bill date. Failure to receive the bill will not excuse the Customer from payment obligations, and payments must be made without regard to any counter claims whatsoever.

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RULES AND REGULATIONS

SECTION XIII (Continued)

13.5 BUDGET PLAN

The Budget Plan is designed for the Customers under Rate Schedules RS-1, ERS-1, RS-2, ERS-2, GS, and EGS, with their account in good standing, and at least twelve (12) months of consumption history. Seasonal heating bills are spread over the Budget Plan period (September through May) with equal monthly payments. The Customer's higher monthly bills during the winter heating season are distributed over a nine-(9) month period, with any under or over billing for the season appearing on and being due with the June bill.

If a RS-1, ERS-1, RS-2, ERS-2, GS, or EGS Customer elects to use the Budget Plan, the estimated bills for the Budget Plan period will be based upon prior consumption at the particular location for a similar period of time, corrected for current conditions. The estimated total bill for the period is divided by the respective number of months to produce the approximate budget payment, which will then be rounded off to the nearest dollar. Subsequent adjustments to the monthly budget payment amount will be made by the Company to compensate for temperature and/or rate changes during the Budget Plan period, with the Customer receiving immediate notification of their new Budget Plan payment amount.

The Company

To remain on the Budget Plan, a Customer must pay the current budget payment by the due date each month and pay all balances due as they appear on the bill at the end of the Budget Plan period.

The Company will normally require that the Customer begin the Budget pPan in September of each year.

13.6 DISPUTED BILLS

Upon receipt of the Customer's initial complaint prior to due date, the Company will extend to the Customer an additional five (5) days to allow for investigation and review of complaint. During time allotted for investigation and review of the complaint, the Company will not discontinue service or require the Customer to provide a security deposit. The final date when payment is due after settlement of complaint shall be ten (10) days.

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RULES AND REGULATIONS

SECTION XIII (Continued)

13.7 UNAUTHORIZED USE

The use of service obtained from the Company without authority may be terminated by the Company without notice. The use of service without notifying the Company and enabling it to read its meter, will render the user liable for any amount due for service supplied to the premises from the time of the last reading of the meter, immediately preceding user's occupancy, as shown by the books of the Company.

13.8 RETURNED PAYMENTS

Payment for services provided under this Tariff, Customer deposits, or other Tariff charges which are returned unpaid by the Customer's bank or other financial institution shall result in an additional twenty dollar (\$20) Returned Payment Charge per occurrence and will be charged against the Customer's account. After the second returned payment the Company reserves the right to notify the Customer that an alternate payment method will be required for future payments.

Failure to pay the full amount of the bill including the Returned Payment Charge will result in a discontinuance of the Customer's service. The Company may discontinue service without prior notice if an invalid payment is used to restore service or satisfy a disconnect notice.

13.9 ADJUSTMENTS FOR INCORRECT BILLINGS

Incorrect billings resulting from clerical error or improper service classifications shall be corrected immediately upon discovery and correct billings rendered to the Customer; however, in no case may additional charges due from the Customer be collected for more than three (3) years prior to the month of discovery. In the event a Customer is overcharged, the overbilling will be refunded to the date the error was made, not to exceed five (5) years, such refund shall be paid to the Customer within sixty (60) days after the error is discovered. Installment payments will be arranged equal to the number of months the account was billed in error in the event additional charges are due the Company, and the installment payments are due and payable in addition to the Customer's regular monthly natural gas service bill.

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**RULES AND REGULATIONS
SECTION XIV - DISCONNECTION BY THE COMPANY**

14.1 DISCONNECTION BY THE COMPANY

The Company may discontinue service and remove its property without being liable to the Customer, or to tenants or occupants of the premises served, for any loss, cost, damage or expense occasioned by such refusal, discontinuance or removal, for any of the following reasons:

- (a) Customer's failure to comply with any of the provisions of the contract, or any applicable regulations of the Commission, or any of the Company's applicable rules or practices currently in effect.
- (b) Customer's non-payment of bill at present or former location. A written notice shall set forth the date service will be discontinued, which shall not be less than five (5) days from the date of mailing of such notice.
- (c) Customer's failure to provide a deposit to insure payment of bills, when requested by the Company under the provisions of Section 13.2.
- (d) After a reasonable request for access to its meter or meters is refused, or if access thereto is obstructed or hazardous.
- (e) The Customer's failure to maintain their equipment in safe condition, in the judgment of the Company.
- (f) The Customer's abuse, fraud, or tampering with the connections, meters or other equipment of the Company.
- (g) The Customer's equipment or use thereof might injuriously affect the equipment of the Company, or the Company's service to other Customers.

The notice provided for in this Section shall consist of five (5) days' written notice sent by first class prepaid mail deposited in a United States mailbox and addressed to the Customer at the Customer's last known mailing address appearing on the records of the Company.

The Company may discontinue service without notice for reasons (e), (f), or (g) above; but, except in emergency situations, in no event shall such termination occur between 12:00 noon on any Friday and 12:00 noon on the succeeding Monday. Should Friday be a legal, state or national holiday, the last preceding business day shall be substituted for Friday. Should Monday be a state or national, legal holiday, the next succeeding business day shall be substituted for Monday. Except in cases of safety or in emergency situations, in no event shall termination occur on a day when the temperature is thirty-two (32) degrees Fahrenheit or below at 8:00 a.m.

Issue Date:

Effective Date:

Authorization:

RULES AND REGULATIONS

SECTION XIV (Continued)

14.1 DISCONNECTION BY THE COMPANY (Continued)

The Company may discontinue service without prior notice if an invalid check is used to restore service or to satisfy a disconnect notice.

The Company will comply with the Commission rules regarding weather conditions or medical conditions for disconnections. Except in case of emergency situations, in no event shall termination occur for non-payment if any occupant of any dwelling unit shall be so ill that the termination of such sale or service shall adversely affect their health or recovery, which has been so certified by a signed statement from any duly licensed physician, physician assistant or advanced nurse practitioner, of this State or of a state with similar accreditation and received by an authorized agent of the Company. Signed statements from a licensed physician, physician assistant or advanced nurse practitioner, obtained pursuant to this section are effective for one hundred twenty (120) days. Signed statements may be renewed by means of a new signed statement to prevent termination only if a customer makes a good faith effort to make payments towards the utility service being provided..

14.2 SEASONAL RECONNECTION AND RECONNECTION CHARGES

Whenever a residential Customer's gas is turned off or a Customer's meter is disconnected by the Company at the Customer's request, and the account placed on inactive status, and such account is reactivated by the same Customer no less than thirty (30) days and not more than one hundred eighty (180) days from the date of the disconnect, a Seasonal Reconnection Charge equal to the monthly Customer Charge in the Customer's applicable Rate Schedule for each month the account was inactive, plus the Reconnection Charge shall be paid. Such payment, along with other satisfactory arrangements for reconnection, shall be made with the Company for reconnection by the end of the next business day. Details of the charges are contained on Sheet No. 46 (Miscellaneous Customer Charges).

Whenever a Customer's gas shall be turned off or such Customer's meter disconnected by reason of non-compliance with these Rules and Regulations or orders of the Public Service Commission of Delaware, a reconnection charge must be paid and other satisfactory arrangements made with the Company prior to 3:00 p.m. of a normal business day before the gas will be turned on again. Details of the charge are contained on Sheet No. 46 (Miscellaneous Customer Charges).

Issue Date:

Effective Date:

Authorization:

RULES AND REGULATIONS

SECTION XIV (Continued)

If the Customer desires that the initial gas service connection or gas service reconnection following disconnection by the Company for any reason, be completed on the same day as the request is received by the Company or outside the Company's normal business hours, such After Hours Reconnection may be performed, subject to the availability of Company personnel. The After Hours Connection or Reconnection Charge must be paid. Details of the charges are contained on Sheet No. 46 (Miscellaneous Customer Charges).

Service interruptions may be avoided by paying the overdue amount prior to the past due date of the gas bill, or by paying the overdue amount plus a collection fee to the Company or an authorized agent of the Company. Details of the charge are contained on Sheet No. 46 (Miscellaneous Customer Charges).

14.3 NON-COMPLIANCE BY COMPANY

Failure on part of the Company to enforce any of its rights at any time shall not be deemed a waiver of any of its rights.

Issue Date: September 2, 2008

Effective Date: For Bills Rendered on and after September 3, 2008

Authorization: Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186

RULES AND REGULATIONS

SECTION XV - TERMINATION OF SERVICE

15.1 TERMINATION BY COMPANY

The Company's obligation to serve a particular premise shall, at the option of the Company cease and terminate (1) in case the property served is vacated or a change of occupancy occurs; (2) in case of an assignment for the benefit of creditors; (3) in case of the illegal use of gas.

15.2 TERMINATION BY CUSTOMER

A Customer who intends to vacate a premises, discontinue the use of Gas, or terminate the liability to pay for gas delivered to the premises, shall give at least five (5) days notice to the Company prior to the date of service termination. The Company shall take its final read of the terminating Customer's meter, within normal business hours, on the date designated by the Customer as the termination date, but shall have no obligation to read the meter before the fifth (5th) day following receipt of the Customer's termination notice. If such notice is not given, the Customer shall be liable for gas registered by the meter until the meter is read by the Company and the account terminated. Receipt of a notice to discontinue gas service from a Customer with a contract term of service shall not relieve such Customer from any minimum or guaranteed payment under such contract.

15.3 FINAL BILL

The Customer is liable for service taken after notice to terminate their service until the meter is read and gas shut off. The final bill for service is due and payable upon presentation. Credit balances on a final bill that are five dollars (\$5) or more will be refunded to the Customer.

Issue Date:
Effective Date:
Authorization:

RULES AND REGULATIONS

SECTION XVI - APPLICATION OF RATES

16.1 DEFINITION OF THE TERM “CUSTOMER”

For the purpose of applying rate schedules in this Tariff, the term “Customer” is defined as any individual, firm, or organization purchasing natural gas delivery service and gas sales service or transportation and balancing service in any one (1) month at one (1) location for one (1) classification of service through one (1) meter. Each individual Customer shall be properly accounted for and identified in the Company’s billing system through the combination of a Customer Account number and a Service Identification and Extension number. The schedule of rates is based on delivering and billing service to the end user for retail service only and does not permit resale or redistribution, unless otherwise specified in the Tariff.

A “month” does not refer to a calendar month, but shall mean the period between any two scheduled consecutive readings of the meters by the Company.

In those cases where, at the Company’s election, two (2) or more meters are installed at a single metering location on the same premises for the same Customer for the same class of service, the amount of gas supplied through all such meters will be combined in arriving at the total charge, and the customer charge will be the same as though one (1) meter was installed.

Where a single commercial, industrial, or institutional Customer occupies more than one (1) unit of space in the conduct of the same business, each separate unit will be metered separately and considered a distinct Customer, unless the Customer makes the necessary provisions to permit metering of all gas used for each class of service in the various units at a single metering location. This rule shall apply only where the units are located on contiguous property with no intervening public property or private property controlled by others. Only one (1) service connection will be provided for each class of service furnished, and the metering location shall be as close as possible to the point of service entrance.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "RS - 1"

RESIDENTIAL SERVICE - 1

AVAILABILITY

This Rate Schedule is available to any individually metered Customer using gas in a residential dwelling or unit for space heating, cooking, water heating, or other domestic purpose with an annual consumption of two hundred forty (240) Ccf or less. The Company will annually review those Customers receiving service under this Rate Schedule in order to determine the appropriate firm residential Rate Schedule should their annual consumption warrant such a change. A Customer on RS-1 Service will be moved to Rate Schedule with annual consumption equal to or greater than two hundred sixty-four (264) Ccf. This annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between Rate Schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the Customer's location apply to all Customers served under this Rate Schedule.

| | |
|------------------|-------------------|
| Customer Charge: | \$15.00 per month |
| First 20 Ccf | \$0.852 per Ccf |
| Next 30 Ccf | \$0.525 per Ccf |
| Over 50 Ccf | \$0.415 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, Customers served under this Rate Schedule are subject to the gas cost rate applicable to Rate Schedule "RS-1" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within twenty (20) days of their date.

MINIMUM BILL

The minimum monthly bill under this Rate Schedule is the Customer charge.

Issue Date:
Effective Date:
Authorization:

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the Customer in one (1) location only and is not to be shared or sold to others.
- (3) In addition to the above Delivery Service rates, Customers served under this Rate Schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

REVENUE NORMALIZATION ADJUSTMENT ("RNA"):

The Delivery Service Revenue for Customers under this Rate Schedule is adjusted quarterly via a separate line item on the bill titled "Revenue Normalization Adjustment." The RNA is calculated to reflect a targeted annual average margin per customer for this Rate Schedule as established in PSC Docket No. 15-____, specifically \$278 per Customer. The RNA is determined under the guidelines approved on Sheet No. 42.5.

Issue Date:
Effective Date:
Authorization:

RATE SCHEDULE "RS - 2"

RESIDENTIAL SERVICE – 2

AVAILABILITY

This Rate Schedule is available to any individually metered Customer using gas in a residential dwelling or unit for space heating, cooking, water heating, or other domestic purpose with annual consumption of greater than two hundred forty (240) Ccf. The Company will annually review those Customers receiving service under this Rate Schedule in order to determine the appropriate firm residential Rate Schedule should their annual consumption warrant such a change. A Customer on RS-1 Service will be moved to this Rate Schedule with annual consumption equal to or greater than two hundred sixty-four (264) Ccf. A Customer on this Rate Schedule will be moved to RS-1 Service with annual consumption less than two hundred sixteen (216) Ccf. This annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between Rate Schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the Customer's location apply to all Customers served under this Rate Schedule.

| | |
|------------------|-------------------|
| Customer Charge: | \$17.00 per month |
| First 20 Ccf | \$0.656 per Ccf |
| Next 30 Ccf | \$0.397 per Ccf |
| Over 50 Ccf | \$0.210 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, Customers served under this Rate Schedule are subject to the gas cost rate applicable to Rate Schedule "RS-2" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within twenty (20) days of their date.

MINIMUM BILL

The minimum monthly bill under this Rate Schedule is the Customer charge.

Issue Date:
Effective Date:
Authorization:

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the Customer in one (1) location only and is not to be shared or sold to others.
- (3) In addition to the above Delivery Service rates, Customers served under this Rate Schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

REVENUE NORMALIZATION ADJUSTMENT ("RNA"):

The Delivery Service revenue for Customers under this Rate Schedule is adjusted quarterly via a separate line item on the bill titled "Revenue Normalization Adjustment." The RNA is calculated to reflect a targeted annual average margin per customer for this Rate Schedule as established in PSC Docket No. 15-____, specifically \$453 per Customer. The RNA is determined under the guidelines approved on Sheet No. 42.5.

Issue Date:
Effective Date:
Authorization:

RATE SCHEDULE "ERS-1"

EXPANSION AREA RESIDENTIAL SERVICE – 1

AVAILABILITY

This Rate Schedule is available to any individually metered Customer within the southeastern Sussex County, Delaware, expansion area using gas in a residential dwelling or unit for space heating, cooking, water heating, or other domestic purpose with an annual consumption of two hundred forty (240) Ccf or less. The southeastern Sussex County, Delaware, expansion area is defined as the area east of Chesapeake's district regulator station located on Route 9 in Lewes, Delaware, that is connected to Chesapeake's distribution main and any area that is connected to Chesapeake's distribution main behind the three (3) Eastern Shore Natural Gas transmission pipeline City Gates located in Dagsboro, Frankford, and Selbyville, Delaware. The Company will annually review those Customers receiving service under this Rate Schedule in order to determine the appropriate firm residential Rate Schedule should their annual consumption warrant such a change. A Customer on ERS-1 Service will be moved to Rate Schedule ERS-2 with annual consumption equal to or greater than two hundred sixty-four (264) Ccf. This annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between Rate Schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the Customer's location apply to all Customers served under this Rate Schedule.

| | |
|------------------|-------------------|
| Customer Charge: | \$16.50 per month |
| First 20 Ccf | \$0.852 per Ccf |
| Next 30 Ccf | \$0.525 per Ccf |
| Over 50 Ccf | \$0.415 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, Customers served under this Rate Schedule are subject to the gas cost rate applicable to Rate Schedule "ERS" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within twenty (20) days of their date.

Issue Date:
Effective Date:
Authorization:

RATE SCHEDULE "ERS-1"

**EXPANSION AREA RESIDENTIAL SERVICE – 1
(Continued)**

MINIMUM BILL

The minimum monthly bill under this Rate Schedule is the Customer charge.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the Customer in one (1) location only and is not to be shared or sold to others.
- (3) In addition to the above Delivery Service rates, Customers served under this Rate Schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

REVENUE NORMALIZATION ADJUSTMENT ("RNA"):

The Delivery Service revenue for Customers under this Rate Schedule is adjusted quarterly via a separate line item on the bill titled "Revenue Normalization Adjustment." The RNA is calculated to reflect a targeted annual average margin per customer for this Rate Schedule as established in PSC Docket No. 15-____, specifically \$335 per Customer. The RNA is determined under the guidelines approved on Sheet No. 42.5.

Issue Date:
Effective Date:
Authorization:

RATE SCHEDULE "ERS-2"

EXPANSION AREA RESIDENTIAL SERVICE – 2

AVAILABILITY

This Rate Schedule is available to any individually metered Customer within the southeastern Sussex County, Delaware, expansion area using gas in a residential dwelling or unit for space heating, cooking, water heating, or other domestic purpose with annual consumption of greater than two hundred forty (240) Ccf. The southeastern Sussex County, Delaware, expansion area is defined as the area east of Chesapeake's district regulator station located on Route 9 in Lewes, Delaware, that is connected to Chesapeake's distribution main and any area that is connected to Chesapeake's distribution main behind the three (3) Eastern Shore Natural Gas transmission pipeline City Gates located in Dagsboro, Frankford, and Selbyville, Delaware. The Company will annually review those Customers receiving service under this Rate Schedule in order to determine the appropriate firm residential Rate Schedule should their annual consumptions warrant such a change. A Customer on ERS-1 Service will be moved to this Rate Schedule with annual consumption equal to or greater than two hundred sixty-four (264) Ccf. A Customer on this Rate Schedule will be moved to ERS-1 Service with annual consumption less than two hundred sixteen (216) Ccf. This annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between Rate Schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the Customer's location apply to all Customers served under this Rate Schedule.

| | |
|------------------|-------------------|
| Customer Charge: | \$31.75 per month |
| First 20 Ccf | \$0.656 per Ccf |
| Next 30 Ccf | \$0.397 per Ccf |
| Over 50 Ccf | \$0.210 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, Customers served under this Rate Schedule are subject to the gas cost rate applicable to Rate Schedule "ERS" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within twenty (20) days of their date.

Issue Date:
Effective Date:
Authorization:

RATE SCHEDULE "ERS-2"

**EXPANSION AREA ` RESIDENTIAL SERVICE – 2
(Continued)**

MINIMUM BILL

The minimum monthly bill under this Rate Schedule is the Customer charge.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the Customer in one (1) location only and is not to be shared or sold to others.
- (3) In addition to the above Delivery Service rates, Customers served under this Rate Schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

REVENUE NORMALIZATION ADJUSTMENT ("RNA"):

The Delivery Service revenue for Customers under this Rate Schedule is adjusted quarterly via a separate line item on the bill titled "Revenue Normalization Adjustment." The RNA is calculated to reflect a targeted annual average margin per customer for this Rate Schedule as established in PSC Docket No. 15-____, specifically \$620 per Customer. The RNA is determined under the guidelines approved on Sheet No. 42.5.

Issue Date:
Effective Date:
Authorization:

**RATE SCHEDULE "GS"
GENERAL SERVICE**

AVAILABILITY

This Rate Schedule is available to any Customer using gas for commercial and/or industrial purposes with an annual consumption of less than four thousand (4,000) Ccf. The Company will annually review those Customers receiving service under this Rate Schedule in order to determine the appropriate firm commercial and/or industrial Rate Schedule should their annual consumption warrant such a change. A Customer on General Service will be moved to Rate Schedule MVS with annual consumption equal to or greater than four thousand four hundred (4,400) Ccf. This annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between Rate Schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the Customer's location apply to all Customers served under this Rate Schedule.

| | |
|------------------|-------------------|
| Customer Charge: | \$34.00 per month |
| First 20 Ccf | \$0.506 per Ccf |
| Next 30 Ccf | \$0.337 per Ccf |
| Over 50 Ccf | \$0.199 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, Customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "GS" provided on Sheet No. 42.

TRANSPORTATION AND BALANCING RIDER

Transportation service is available to commercial and industrial Customers on this Rate Schedule who meet the eligibility requirements set forth in the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the Customer is subject to the following Firm Balancing Service Rate applied to all gas consumption.

| | |
|-------------------------------------|--|
| Firm Balancing Service Rate: | \$0.081 per Ccf of gas consumed |
|-------------------------------------|--|

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "GS"

**GENERAL SERVICE
(Continued)**

PUBLIC UTILITIES TAX

The Delivery Service, Gas Sales Service, Firm Balancing Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the Customer is exempt from such tax.

PAYMENT TERMS

Bills are due within twenty (20) days of their date.

MINIMUM BILL

The minimum monthly bill under this Rate Schedule is the Customer charge.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the Customer in one (1) location only and is not to be shared or sold to others except for retail sale as a fuel to natural gas vehicles and except for sale or transportation of compressed natural gas ("CNG") to third parties.
- (3) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service, as authorized under the Company's Tariff, may be required to pay a transition charge in the future to prevent the remaining firm Gas Sales Service Customers from having to absorb stranded fixed gas supply costs which would otherwise be collected from the firm Gas Sales Service Customers switching to Transportation and Balancing Service.
- (4) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service or to Interruptible Sales Service, as authorized under the Company's Tariff, will be billed for or receive credit for any under or over collection of gas costs from prior periods.
- (5) In addition to the above Delivery Service rates, Customers served under this Rate Schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "GS"

GENERAL SERVICE

(Continued)

REVENUE NORMALIZATION ADJUSTMENT ("RNA"):

The Delivery Service revenue for Customers under this Rate Schedule is adjusted quarterly via a separate line item on the bill titled "Revenue Normalization Adjustment." The RNA is calculated to reflect a targeted annual average margin per customer for this Rate Schedule as established in PSC Docket No. 15-____, specifically \$663 per Customer. The RNA is determined under the guidelines approved on Sheet No. 42.5.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "EGS"

EXPANSION AREA GENERAL SERVICE

AVAILABILITY

This Rate Schedule is available to any Customer within the southeastern Sussex County, Delaware, expansion area using gas for commercial and/or industrial purposes with an annual consumption of less than four thousand (4,000) Ccf. The southeastern Sussex County, Delaware, expansion area is defined as the area east of Chesapeake's district regulator station located on Route 9 in Lewes, Delaware, that is connected to Chesapeake's distribution main and any area that is connected to Chesapeake's distribution main behind the three (3) Eastern Shore Natural Gas transmission pipeline City Gates located in Dagsboro, Frankford, and Selbyville, Delaware. The Company will annually review those Customers receiving service under this Rate Schedule in order to determine the appropriate firm commercial and/or industrial rate schedule should their annual consumption warrant such a change. A Customer on Rate Schedule EGS will be moved to Rate Schedule EMVS with annual consumption equal to or greater than four thousand four hundred (4,400) Ccf. This annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between Rate Schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the Customer's location apply to all Customers served under this Rate Schedule.

| | |
|------------------|-------------------|
| Customer Charge: | \$56.00 per month |
| First 20 Ccf | \$0.506 per Ccf |
| Next 30 Ccf | \$0.337 per Ccf |
| Over 50 Ccf | \$0.199 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, Customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "EGS" provided on Sheet No. 42.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "EGS"

**EXPANSION AREA GENERAL SERVICE
(Continued)**

TRANSPORTATION AND BALANCING RIDER

Transportation service is available to commercial and industrial Customers on this Rate Schedule who meet the eligibility requirements set forth in the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the Customer is subject to the following Firm Balancing Service Rate applied to all gas consumption

Firm Balancing Service Rate: \$0.081 per Ccf of gas consumed

PUBLIC UTILITIES TAX

The Delivery Service, Gas Sales Service, Firm Balancing Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the Customer is exempt from such tax.

PAYMENT TERMS

Bills are due within twenty (20) days of their date.

MINIMUM BILL

The minimum monthly bill under this Rate Schedule is the Customer charge.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the Customer in one (1) location only and is not to be shared or sold to others except for retail sale as a fuel to natural gas vehicles and except for sale or transportation of CNG to third parties.

Issue Date:

Effective Date:

RATE SCHEDULE "EGS"

EXPANSION AREA GENERAL SERVICE
(Continued)

SPECIAL TERMS AND CONDITIONS OF SERVICE (Continued)

- (3) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service, as authorized under the Company's Tariff, may be required to pay a transition charge in the future to prevent the remaining firm Gas Sales Service Customers from having to absorb stranded fixed gas supply costs which would otherwise be collected from the firm Gas Sales Service Customers switching to Transportation and Balancing Service.
- (4) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service or to Interruptible Sales Service, as authorized under the Company's Tariff, will be billed for or receive credit for any under or over collection of gas costs from prior periods.
- (5) In addition to the above Delivery Service rates, Customers served under this Rate Schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

REVENUE NORMALIZATION ADJUSTMENT ("RNA"):

The Delivery Service revenue for Customers under this Rate Schedule is adjusted quarterly via a separate line item on the bill titled "Revenue Normalization Adjustment." The RNA is calculated to reflect a targeted annual average margin per customer for this Rate Schedule as established in PSC Docket No. 15-____, specifically \$897 per Customer. The RNA is determined under the guidelines approved on Sheet No. 42.5.

Authorization:

**RATE SCHEDULE "MVS"
MEDIUM VOLUME SERVICE**

AVAILABILITY

This Rate Schedule is available to any Customer using gas for commercial and/or industrial purposes with an annual consumption generally equal to or greater than four thousand (4,000) Ccf and less than fifteen thousand (15,000) Ccf. The Company will annually review those Customers receiving service under this Rate Schedule in order to determine the appropriate firm commercial and/or industrial Rate Schedule should their annual consumption warrant such a change. A Customer on General Service will be moved to this Rate Schedule with annual consumption equal to or greater than four thousand four hundred (4,400) Ccf. A Customer on this Rate Schedule will be moved to General Service with annual consumption less than three thousand six hundred (3,600) Ccf. The annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between Rate Schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the Customer's location apply to all Customers served under this Rate Schedule.

| | |
|------------------|-------------------|
| Customer Charge: | \$80.00 per month |
| First 200 Ccf | \$0.237 per Ccf |
| Over 200 Ccf | \$0.125 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, Customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "MVS" provided on Sheet No. 42.

TRANSPORTATION AND BALANCING RIDER

Transportation service is available to commercial and industrial Customers on this Rate who meet the eligibility requirements set forth in the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the customer is subject to the following Firm Balancing Service Rate applied to all gas consumption

| | |
|-------------------------------------|---------------------------------|
| Firm Balancing Service Rate: | \$0.091 per Ccf of gas consumed |
|-------------------------------------|---------------------------------|

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "MVS"

MEDIUM VOLUME SERVICE

PUBLIC UTILITIES TAX

The Delivery Service, Gas Sales Service, Firm Balancing Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the Customer is exempt from such tax.

PAYMENT TERMS

Bills are due within twenty (20) days of their date.

MINIMUM BILL

The minimum monthly bill under this Rate Schedule is the Customer charge.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the Customer in one (1) location only and is not to be shared or sold to others except for retail sale as a fuel to natural gas vehicles and except for sale or transportation of CNG to third parties.
- (3) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service, as authorized under the Company's Tariff, may be required to pay a transition charge in the future to prevent the remaining firm Gas Sales Service Customers from having to absorb stranded fixed gas supply costs which would otherwise be collected from the firm Gas Sales Service Customers switching to Transportation and Balancing Service.
- (4) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service or Interruptible Sales Service, as authorized under the Company's Tariff, will be billed for or receive credit for any under or over collection of gas costs from prior periods.
- (5) In addition to the above Delivery Service rates, Customers served under this Rate Schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "EMVS"

EXPANSION AREA MEDIUM VOLUME SERVICE

AVAILABILITY

This Rate Schedule is available to any Customer within the southeastern Sussex County, Delaware, expansion area using gas for commercial and/or industrial purposes with an annual consumption generally equal to or greater than four thousand (4,000) Ccf and less than fifteen thousand (15,000) Ccf. The southeastern Sussex County, Delaware, expansion area is defined as the area east of Chesapeake's district regulator station located on Route 9 in Lewes, Delaware, that is connected to Chesapeake's distribution main and any area that is connected to Chesapeake's distribution main behind the three (3) Eastern Shore Natural Gas transmission pipeline City Gates located in Dagsboro, Frankford, and Selbyville, Delaware. The Company will annually review those Customers receiving service under this Rate Schedule in order to determine the appropriate firm commercial and/or industrial Rate Schedule should their annual consumption warrant such a change. A Customer on Rate Schedule EGS will be moved to this Rate Schedule with annual consumption equal to or greater than four thousand four hundred (4,400) Ccf. A Customer on this Rate Schedule will be moved to Rate Schedule EGS with annual consumption less than three thousand six hundred (3,600) Ccf. The annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between Rate Schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the Customer's location apply to all Customers served under this Rate Schedule.

| | |
|------------------|--------------------|
| Customer Charge: | \$158.75 per month |
| First 200 Ccf | \$0.237 per Ccf |
| Over 200 Ccf | \$0.125 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, Customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "EMVS" provided on Sheet No. 42.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "EMVS"

**EXPANSION AREA MEDIUM VOLUME SERVICE
(Continued)**

TRANSPORTATION AND BALANCING RIDER

Transportation service is available to commercial and industrial Customers on this Rate who meet the eligibility requirements set forth in the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the Customer is subject to the following Firm Balancing Service Rate applied to all gas consumption

Firm Balancing Service Rate: \$0.091 per Ccf of gas consumed

PUBLIC UTILITIES TAX

The Delivery Service, Gas Sales Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the Customer is exempt from such tax.

PAYMENT TERMS

Bills are due within twenty (20) days of their date.

MINIMUM BILL

The minimum monthly bill under this Rate Schedule is the Customer charge.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the Customer in one (1) location only and is not to be shared or sold to others except for retail sale as a fuel to natural gas vehicles and except for sale or transportation of CNG to third parties.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "EMVS"

**EXPANSION AREA MEDIUM VOLUME SERVICE
(Continued)**

SPECIAL TERMS AND CONDITIONS OF SERVICE (Continued)

- (3) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service, as authorized under the Company's Tariff, may be required to pay a transition charge in the future to prevent the remaining firm Gas Sales Service Customers from having to absorb stranded fixed gas supply costs which would otherwise be collected from the firm Gas Sales Service Customers switching to Transportation and Balancing Service.
- (4) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service or Interruptible Sales Service, as authorized under the Company's Tariff, will be billed for or receive credit for any under or over collection of gas costs from prior periods.
- (5) In addition to the above Delivery Service rates, Customers served under this Rate Schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "LVS"

LARGE VOLUME SERVICE

AVAILABILITY

This Rate Schedule is available to any Customer using gas for commercial and/or industrial purposes with an annual consumption generally equal to or greater than fifteen thousand (15,000) Ccf. The Company will annually review those Customers receiving service under this Rate Schedule in order to determine the appropriate firm commercial and/or industrial Rate Schedule should their annual consumption warrant such a change. A Customer on Medium Volume Service will be moved to this Rate Schedule with annual consumption equal to or greater than sixteen thousand five hundred (16,500) Ccf. A Customer on this Rate Schedule will be moved to Medium Volume Service with annual consumption less than thirteen thousand five hundred (13,500) Ccf. The annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between Rate Schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the Customer's location apply to all Customers served under this Rate Schedule.

| | |
|------------------|--------------------|
| Customer charge: | \$175.00 per month |
| First 1000 Ccf | \$0.218 per Ccf |
| Over 1000 Ccf | \$0.088 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, Customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "LVS" provided on Sheet No. 42.

Issue Date:
Effective Date:
Authorization:

RATE SCHEDULE "LVS"

**LARGE VOLUME SERVICE
(Continued)**

TRANSPORTATION AND BALANCING SERVICE

Transportation service is available to commercial and industrial Customers on this Rate Schedule who meet the eligibility requirements set forth in the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the Customer is subject to the following Firm Balancing Service rate applied to all gas consumption.

Firm Balancing Service Rate: \$0.073 per Ccf of gas consumed

PUBLIC UTILITIES TAX

The Delivery Service, Gas Sales Service, Firm Balancing Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the Customer is exempt from such tax.

PAYMENT TERMS

Bills are due within twenty (20) days of their date.

MINIMUM BILL

The minimum monthly bill under this Rate Schedule is the Customer charge.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the Customer in one (1) location only and is not to be shared or sold to others except for retail sale as a fuel to natural gas vehicles and except for sale or transportation of CNG to third parties.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "LVS"

**LARGE VOLUME SERVICE
(Continued)**

SPECIAL TERMS AND CONDITIONS OF SERVICE (Continued)

- (3) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service, as authorized under the Company's Tariff, may be required to pay a transition charge in the future to prevent the remaining firm Gas Sales Service Customers from having to absorb stranded fixed gas supply costs which would otherwise be collected from the firm Gas Sales Service Customers switching to Transportation and Balancing Service.
- (4) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service or to Interruptible Sales Service, as authorized under the Company's Tariff, will be billed for or receive credit for any under or over collection of gas costs from prior periods.
- (5) In addition to the above Delivery Service rates, Customers served under this Rate Schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

Issue Date:
Effective Date:
Authorization:

**RATE SCHEDULE "HLFS"
HIGH LOAD FACTOR SERVICE**

AVAILABILITY

This Rate Schedule is available to any Customer using gas for commercial and/or industrial purposes that would otherwise qualify for Medium Volume Service or Large Volume Service and with winter months' consumption, defined as the months of January through March, being less than thirty-five percent (35%) of their annual consumption. In addition, the Customer must use natural gas in at least eleven (11) of the twelve (12) months under review and usage must be fairly evenly distributed throughout the review period. The Company will annually review those Customers receiving service under this Rate Schedule in order to determine the appropriate firm commercial and/or industrial Rate Schedule should their annual consumption or winter months consumption warrant such a change. A Customer will remain on this Rate Schedule as long as winter months' consumption is less than thirty-seven percent (37%) of their annual consumption and the Customer qualifies for Medium Volume Service or Large Volume Service. The annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between Rate Schedules due to changes in annual consumption or winter months' consumption other than after the annual review.

DELIVERY SERVICE RATES

The following rates for delivering gas to the Customer's location apply to all Customers served under this Rate Schedule.

| | |
|------------------|--------------------|
| Customer Charge: | \$125.00 per month |
| All gas consumed | \$0.080 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, Customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "HLFS" provided on Sheet No. 42.

Issue Date:
Effective Date:
Authorization:

RATE SCHEDULE "HLFS"
HIGH LOAD FACTOR SERVICE
(Continued)

TRANSPORTATION AND BALANCING SERVICE

Transportation service is available to commercial and industrial Customers on this Rate who meet the eligibility requirements set forth in the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the Customer is subject to the following Firm Balancing Service rate applied to all gas consumption

Firm Balancing Service Rate: \$0.024 per Ccf of gas consumed

PUBLIC UTILITIES TAX

The Delivery Service, Gas Sales Service, Firm Balancing Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the Customer is exempt from such tax.

PAYMENT TERMS

Bills are due within twenty (20) days of their date.

MINIMUM BILL

The minimum monthly bill under this Rate Schedule is the Customer charge.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the Customer in one (1) location only and is not to be shared or sold to others except for retail sale as a fuel to natural gas vehicles and except for sale or transportation of CNG to third parties.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "HLFS"

**HIGH LOAD FACTOR SERVICE
(Continued)**

SPECIAL TERMS AND CONDITIONS OF SERVICE (Continued)

- (3) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service, as authorized under the Company's Tariff, may be required to pay a transition charge in the future to prevent the remaining firm Gas Sales Service Customers from having to absorb stranded fixed gas supply costs which would otherwise be collected from the firm Gas Sales Service Customers switching to Transportation and Balancing Service.
- (4) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service or to Interruptible Sales Service, as authorized under the Company's Tariff, will be billed for or receive credit for any under or over collection of gas costs from prior periods.
- (5) In addition to the above Delivery Service rates, Customers served under this Rate Schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

Issue Date:
Effective Date:
Authorization:

RATE SCHEDULE "NGV"

NATURAL GAS VEHICLE

SERVICE AVAILABILITY

This Rate Schedule is available to any Customer operating a motor vehicle that is capable of using compressed natural gas ("CNG") as a fuel if the equipment installed on the vehicle meets industry recognized standards and if the operator is authorized by the Company to fuel a motor vehicle with the CNG as the result of completing the Company's training program or a program determined by the Company, in its sole discretion, to be an equivalent training program.

This gas service will be available at Chesapeake Utilities Corporation, 350 South Queen Street, Dover, Delaware 19904. Service hereunder is subject to availability of the Company's gas supply, adequate distribution system capabilities and other resources available to and as determined by the Company.

This gas service is subject to interruption, at the Company's option, at any time during the year without notice and for an indefinite period of time. The Company has no obligation whatsoever to make CNG available to any Customer and may interrupt service at any time without notice.

TERM

Service under this contract will terminate, with ninety (90) days' notice, at the discretion of the Company or the Commission. This notice shall be given by registered letter.

COMMODITY CHARGE (Posted Price)

The price per Ccf of CNG will be posted at the CNG Station on the first (1st) day of each month and will be set at the average price for CNG for the central Atlantic region as published by the U.S. Department of Energy in its most recent Clean Cities Alternative Fuel Price Report or its successor publication, plus any applicable tax imposed by any governmental entity on natural gas sales or CNG sales.

The price charged to any Customer will be reduced from the posted price to the extent the posted price includes a tax or taxes imposed by any governmental entity on natural gas sales or CNG sales and the Customer is exempt from such tax or taxes.

If the Customer is exempt from federal or state taxes imposed with respect to sales of CNG for motor vehicle use, the price charged to the Customer will be reduced from the posted price by the tax or taxes on CNG from which the Customer is exempt.

In no event will CNG be sold if the price as determined above is below the price level established for Company-Use Gas.

Issue Date:
Effective Date:
Authorization:

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Issue Date: September 2, 2008

Effective Date: For Bills Rendered on and after September 3, 2008

Authorization: Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186

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RATE SCHEDULE "GLR"

GAS LIGHTING SERVICE

AVAILABILITY

This Rate Schedule is available for unmetered residential outdoor gas lights as herein specified where the Company's existing distribution mains and services are suitable to supply such service.

DELIVERY SERVICE RATE

The following rate for delivering gas to the Customer's location applies to all Customers served under this Rate Schedule.

Each 2 cu. ft./hr. or less \$16.72 per month.

GAS SALES SERVICE

In addition to the above Delivery Service rates, Customers served under this Rate Schedule are subject to the gas cost rate applicable to Rate Schedule "GLR" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within twenty (20) days of their date.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) The Customer shall install and own the lighting devices.
- (3) In addition to the above Delivery Service rates, Customers served under this Rate Schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "GLO"

GAS LIGHTING SERVICE

AVAILABILITY

This Rate Schedule is available for unmetered outdoor gas lights for other than residential use as herein specified where the Company's existing distribution mains and services are suitable to supply such service.

DELIVERY SERVICE RATE

The following rate for delivering gas to the Customer's location applies to all Customers served under this Rate Schedule.

Each 2 cu. ft./hr. or less \$16.72 per month.

GAS SALES SERVICE

In addition to the above Delivery Service rates, Customers served under this Rate Schedule are subject to the gas cost rate applicable to Rate Schedule "GLO" provided on Sheet No. 42.

PUBLIC UTILITIES TAX

The Delivery Service, Gas Sales Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the Customer is exempt from such tax.

PAYMENT TERMS

Bills are due within twenty (20) days of their date.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) The Customer shall install and own the lighting devices.
- (3) In addition to the above Delivery Service rates, Customers served under this Rate Schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "NCR"

NEGOTIATED CONTRACT RATE

AVAILABILITY

This negotiated contract Tariff provision enables the Company to respond to Customers' competitive options in the energy services market. The Company shall use this negotiated contract Tariff to compete with alternate pricing situations resulting from, but not limited to, fuel switching, facility relocation or expansion, partial or complete plant production shifting, potential physical bypass, or other options available to the Customer. The Company shall use the provisions of this Tariff only after a determination by the Company and the Customer that other existing Tariff options will not meet the Customer's needs.

ELIGIBILITY

This contract Tariff is available to any qualifying Customer as specified herein. Customer qualification shall be based upon meeting each of the following criteria as determined solely by the Company:

- (1) The Customer has an economic competitive alternative to full or partial service from the Company's standard Tariff rates, as determined by the Company;
- (2) The Customer is likely to select said alternative if the Company does not provide a negotiated contract rate; and
- (3) The price to the Customer will provide net revenues above the incremental costs to provide service under this negotiated contract rate; and
- (4) The Customer desires fixed pricing for a term of one (1) year or more which requires a gas supply tailored to the specified term and pricing conditions.

The Company shall determine eligibility on a case-by-case basis based upon information supplied by the Customer and in accordance with the Company's internal pricing guidelines. The Company's decision on the application shall consider the economics of the competitive alternative, as well as the practical aspects of securing that alternative (e.g., ability to secure environmental permitting, feasibility studies, switching ability, ability to secure required capital).

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "NCR"

**NEGOTIATED CONTRACT RATE
(Continued)**

SERVICE OPTIONS

If the Company concludes that the Customer meets all the eligibility requirements listed above, the Company shall enter into negotiations with the Customer for the purpose of offering such services as are believed to meet the Customer's requirements. Competitive offers may be made in a manner which provides the Customer with numerous choices for service. A menu of service options differentiated by contract term, quantity, pricing options, and service attributes may be made available to the qualifying Customer.

RATE

Pricing for delivery service only, a combination of delivery service and gas supply, and balancing service shall be determined on a case-by-case basis according to the nature of the competitive situation. The final arrangements between the Company and the Customer shall be included in the contract.

PUBLIC UTILITIES TAX

All rates and charges under this Rate Schedule, including gas cost if applicable, are subject to the Delaware Public Utilities Tax unless the Customer is exempt from such tax.

CONTRACT TERM

The contract term shall be specified in a contract between the Customer and the Company. The minimum term of any contract will be one (1) year and the maximum term will be five (5) years.

SPECIAL TERMS AND PROVISIONS

- (1) Upon agreement on service options, the Customer and the Company shall enter into a contract which specifies the services and the terms and conditions of providing the services. The Customer must sign the contract prior to commencement of this service and any investment by the Company. Service under the contractual agreement will commence on the date specified in the contract.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "NCR"

**NEGOTIATED CONTRACT RATE
(Continued)**

SPECIAL TERMS AND PROVISIONS (Continued)

- (2) The contract shall be considered a confidential document between the Company and the Customer. By signing the contract, the Customer and the Company agree not to share the contract or information contained within the contract with anyone except the parties to the contract, the Public Service Commission of Delaware and the Office of the Public Advocate, unless given written consent from the other party. Violations by the Customer of the confidentiality agreement shall permit the Company to immediately terminate the contract with the Customer and serve the Customer under another rate schedule for which the Customer qualifies. The Customer shall also be responsible for the penalty provision described below and additional damages or prejudices to any other existing or potential contracts resulting from the breach of confidentiality.
- (3) The contract between the Company and the Customer shall include penalty provisions for early contract cancellation. If at any time prior to the end of the contract term the Customer elects to terminate the contractual agreement with the Company without exercising a re-contracting option for continuing service, the Customer shall be obligated to the terms for cancellation as specified within the contract.
- (4) The Company may offer value-added services in conjunction with the contract. All service attributes agreed to between the Company and the Customer shall be included in the contract.
- (5) The Company shall file all required information with the Public Service Commission of Delaware within thirty (30) days of the executed Contract.

Issue Date:
Effective Date:
Authorization:

RATE SCHEDULE "ITS"

INTERRUPTIBLE TRANSPORTATION SERVICE

AVAILABILITY

This Rate Schedule is available to any non-residential Customer with annual consumption of at least one hundred thousand (100,000) Ccf with facilities in operating condition capable of utilizing an alternative fuel due to the fact gas service provided is subject to complete interruption at any time during the year at the Company's option. The definition of an alternative fuel under this rate schedule shall be propane, fuel oil, or electricity. When applying for service under this Rate Schedule, the Customer is required to provide the Company, in writing, with the type and specific grade of alternative fuel utilized by the Customer. The Customer shall submit, within thirty (30) days of any change in operations, written notification when such change affects its alternate fuel capability. The Customer must also purchase all of its gas from or through a qualified supplier of natural gas as set forth in Rate Schedule SUP.

DELIVERY SERVICE RATE

Customer charge: \$935.00 per month

The rate per Ccf of consumption shall be determined on an individual Customer basis according to the nature of the interruptible service to be provided. This rate can be adjusted upon one (1) day's notice to the Customer.

TRANSPORTATION AND BALANCING SERVICE

Customers must have the natural gas delivered to the Company's city gate in accordance with the Transportation and Balancing Rider General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rate, the Customer is subject to the following Interruptible Balancing Service rate applied to all gas consumption.

Interruptible Balancing Service Rate: \$0.014 per Ccf of gas consumed

RATE SCHEDULE "ITS"

**INTERRUPTIBLE TRANSPORTATION SERVICE
(Continued)**

PUBLIC UTILITIES TAX

The Delivery Service, Interruptible Balancing Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the Customer is exempt from such tax.

PAYMENT TERMS

Bills are due within twenty (20) days of their date.

MINIMUM BILL

The minimum monthly bill under this Rate Schedule is the Customer charge.

CONTRACT TERMS

The contract term shall be specified in a contract between the Customer and the Company. The minimum term of any contract will be one (1) year.

SERVICE INTERRUPTION

The Company will endeavor to provide as much notice as possible to Customers prior to any interruption or curtailment of gas delivery service. Customer agrees to accept complete interruption of service upon at least four (4) hours advance notice from any hour of the day. If the Customer fails to interrupt service, the Customer shall pay a Penalty Rate of five dollars (\$5) per Ccf in addition to the currently effective rate. The Penalty Rate, which shall be credited to firm Customers through the GSR mechanism, shall remain in effect until such time as the Company, in its sole discretion, determines that normal service can be restored. The Customer agrees to hold the Company harmless from any loss, cost or damage occasioned by the interruption of service resulting from the Company's enforcement of this provision. In the event the Customer has an emergency that would cause the Customer great hardship if gas service is interrupted, the Company may, at its sole discretion based on available gas supply, waive interruption for a specified period of time. If the Customer fails to interrupt by the end of the specified period, the Customer shall pay the penalty shown above.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "ITS"

**INTERRUPTIBLE TRANSPORTATION SERVICE
(Continued)**

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Service purchased hereunder is for the use of the Customer in one (1) location only and is not to be shared or sold to others.
- (3) Service hereunder will be interrupted at the sole discretion of the Company.
- (4) Service hereunder will not be supplied from the Company's peaking facilities unless the Company waives the interruption of service due to an emergency.
- (5) In addition to the above Delivery Service rates, Customers served under this Rate Schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

Issue Date:
Effective Date:
Authorization:

RATE SCHEDULE "IBE"

INTERRUPTIBLE BEST EFFORTS SALES SERVICE

AVAILABILITY

This Rate Schedule is available to any commercial or industrial transportation Customer or Supplier for use as an interruptible gas supply for deliveries to or upstream of the distribution system or to any entity for off-system deliveries to replace third-party gas for any reason or to serve incremental loads. This service is available only on a best efforts basis subject to the ability of the Company to obtain gas supply and subject to interruption for any reason determined by the Company. Service under this Rate Schedule must be scheduled no later than 7:00 a.m. of the day before service is to begin. Transportation Customers that have a third-party supply interrupted will be subject to any applicable penalties that accrue before this service is scheduled.

DELIVERY SERVICE RATE

The rate for delivering gas to the Customer's location through the Company's distribution system will be at the Delivery Service rate set forth in the Rate Schedule under which the Customer normally receives service.

GAS SERVICE RATE

The gas rate for natural gas service shall be a negotiated, market-based rate. Any margins received under this rate shall be credited eighty percent (80%) to the firm customers through the GSR mechanism with twenty percent (20%) being retained by the Company.

PUBLIC UTILITIES TAX

The Delivery Service, Gas Sales Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the Customer is exempt from such tax.

PAYMENT TERMS

Bills are due within twenty (20) days of their date.

CONTRACT TERMS

The contract term shall be specified in a contract between the Customer and the Company. The minimum term of any contract is one (1) day.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "IBE"

**INTERRUPTIBLE BEST EFFORTS SALES SERVICE
(Continued)**

SERVICE INTERRUPTION

The Customer agrees to accept complete interruption of service upon at least four (4) hour advance notice from any hour of the day. If the customer fails to interrupt service, the Customer shall pay a Penalty Rate of five dollars (\$5) per Ccf in addition to the currently effective rates. The Penalty Rate, which shall be credited to firm Customers through the GSR mechanism, shall remain in effect until such time as the Company, in its sole discretion, determines that normal service can be restored. The Customer agrees to hold the Company harmless from any loss, cost or damage occasioned by the interruption of service resulting from the Company's enforcement of this provision. In the event the Customer has an emergency that would cause the Customer great hardship if gas service is interrupted, the Company may, at its sole discretion based on available gas supply, waive interruption for a specified period of time. If the Customer fails to interrupt by the end of the specified period, the Customer shall pay the penalty shown above.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Service purchased hereunder is for the use of the Customer in one (1) location only and is not to be shared or sold to others.
- (3) Service hereunder will be interrupted at the sole discretion of the Company.
- (4) Service hereunder will not be supplied from the Company's peaking facilities unless the Company waives the interruption of service due to an emergency.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "GSR"**GAS SALES SERVICE RATES****FIRM SALES RATE SCHEDULES**

The Gas Sales Service Rates applicable to the respective firm Rate Schedules, as listed below, will be applied to all Customers served on that schedule based on a volumetric charge per Ccf (100 cubic feet). The Gas Sales Service Rates only apply to the respective firm Rate Schedules listed below and do not apply to the Interruptible Transportation Service, Transportation Service, Negotiated Contract Rate, and Interruptible Best Efforts Sales Service. The Gas Sales Service Rates will be calculated to the nearest tenth of a cent (.1¢).

The following lists the applicable Gas Sales Service Rates for the respective firm Rate Schedules as defined in this Tariff:

| <u>RATE SCHEDULE</u> | <u>GAS SALES SERVICE RATES</u> |
|---------------------------------|--------------------------------|
| RS, ERS, GS, EGS, MVS, EMVS LVS | \$0.681 per Ccf |
| HLFS | \$0.488 per Ccf |
| GLR and GLO | \$0.218 per Ccf |

These rates are subject to change based on actual and estimated gas costs. The The Company will file with the Commission a copy of these Gas Sales Service Rates at least sixty (60) days prior to the regularly scheduled adjustment date, which shall be each November 1.

The November 1 rates will be based on a projected twelve (12) month period of November through October (projected period). The rates computed under this Rate Schedule shall remain in effect for the projected period provided the latest estimated over collection does not exceed 4½% or the latest estimated under collection does not exceed 6% of the actual firm gas costs incurred to date along with the Company's latest firm gas cost estimates for the remainder of the over/under collection period (over/under period). The twelve (12) month period used for the calculation of the over/under period will be based on the actual nine (9) months ended July 31 of each year and the projected three (3) months ended October 31 of each year. If it appears that the use of these rates for the twelve (12) month over/under period will result in an over or under collection exceeding these limits, the Company shall apply to the Commission for revised rates to be effective until the next annual adjustment in the rates.

Issue Date:**Effective Date: Authorization:**

**RATE SCHEDULE "GSR"
GAS SALES SERVICE RATES
(Continued)**

OVERALL METHODOLOGY

The overall projected firm gas costs for the twelve (12) month projected period shall include:

- (1) Natural gas purchased from any Supplier; plus
- (2) Liquefied petroleum gas (LPG); plus
- (3) Liquefied natural gas (LNG); plus
- (4) Other hydrocarbons distributed to Customers or used as feedstock for production of substitute natural gas (SNG); plus
- (5) Storage, transportation, and any other gas related costs, including costs related to the gas supply department; plus
- (6) Charges paid to the Company's Suppliers for past periods unless disallowed by the Public Service Commission of Delaware; less
- (7) The projected commodity gas costs for Interruptible Service; less
- (8) The demand and commodity gas costs for Negotiated Contract Rate Customers who are not charged the gas sales service rate associated with a firm Rate Schedule; less
- (9) The commodity gas costs for Interruptible Best Efforts Sales Service; less
- (10) All demand and commodity Supplier refunds received from the Company's Suppliers; less
- (11) The firm sales Customers receipt of one hundred percent (100%) of the firm and interruptible transportation balancing service margins which will be a demand related gas cost; less or plus
- (12) The over or under collection for the prior over/under period of the actual nine (9) months ended July 31 and the projected three (3) months ended October 31. Interest will be calculated on the actual monthly over or under collection balances net of deferred income taxes at the rate of one-twelfth (1/12th) the annual refund interest rate issued by the Federal Energy Regulatory Commission on a quarterly basis; less or plus
- (13) Any other applicable gas cost adjustments

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "GSR"

**GAS SALES SERVICE RATES
(Continued)**

OVERALL METHODOLOGY (Continued)

A Demand Rate will be determined by dividing the total firm fixed cost components by the firm peak day capacity requirements. A Commodity Rate will be determined by dividing the total firm commodity cost components by total firm consumption for the respective determination period.

ALLOCATION TO RESPECTIVE FIRM RATE SCHEDULES

Rate Schedule HLFS – High Load Factor Service will be charged a single gas cost rate per Ccf based on the combination of a weighted average Demand and Commodity Rate developed on an overall seventy-one and fifty-seven one hundredths percent (71.57%) load factor for the customer class with the overall system weighted average gas cost rate. The purchased gas costs will be allocated to this Rate Schedule based on its annual consumption for the projected period.

Rate Schedule GLO, GLR – The Gas Lighting Services will be charged the weighted average Demand and Commodity Rates through a single gas cost rate per Ccf based on a one hundred percent (100%) load factor. The purchased gas costs will be allocated to this Rate Schedule based on its annual consumption for the projected period.

Rate Schedule RS-1, ERS-1, RS-2, ERS-2, GS, EGS, MVS, EMVS, LVS – These rate schedules will be assigned the remaining firm purchased gas costs after the firm purchased gas costs have been allocated to the above mentioned Rate Schedules less the portion of any shared margins resulting from capacity release, or off-system sales. These Rate Schedules will be charged a single gas cost rate per Ccf. This rate will reflect the sum of the projected demand and commodity costs for these classes divided by the sum of their annual consumption for the projected period.

MARGIN SHARING

Margins as used herein for off system sales means revenues less: (a) associated gas costs and (b) any applicable taxes based on gross receipts. Margins as used herein for capacity release means revenues less any applicable taxes based on gross receipts. As used in this Tariff, the term "Shared Margins" means off system sales margins, and upstream capacity release margins.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "GSR"

GAS SALES SERVICE RATES
(Continued)

MARGIN SHARING (Continued)

During the over/under period, the Company shall retain twenty percent (20%) and the firm customers, as described above, will receive eighty percent (80%) of all Shared Margins resulting from off-system sales. Additionally, during the over/under period, the Company shall retain ten percent (10%) and the firm customers, as described above, will receive ninety percent (90%) of all Shared Margins resulting from upstream capacity release transactions.

UNACCOUNTED FOR GAS INCENTIVE MECHANISM

The Unaccounted For Gas Incentive Mechanism was originally approved by the Commission on an experimental basis for the following three (3) consecutive twelve (12) month ending periods: August 31, 1993, 1994 and 1995. The Commission reviewed the Incentive Mechanism and determined it should be continued beyond the initial three (3) year period by Order No. 4189 in PSC Docket No. 95-206F.

DEFINITIONS

The terms utilized in the Unaccounted For Gas Incentive Mechanism shall have the following meanings:

1. Unaccounted For Gas shall be defined as the difference between total gas sales, billed and unbilled, and total gas send-out, exclusive of Company-use gas and pressure compensated gas volumes.
2. The Unaccounted For Gas Target (UFG-T) shall be three and two tenths percent (3.20%) of total gas sendout or total gas requirements.
3. The Dead Band shall mean +/- one-half percent (0.5%) around the three and two tenths percent (3.20%) UFG-T. Unaccounted For Gas volumes which are within two and seven tenths percent (2.70%) to three and seven tenths percent (3.70%) of total gas sendout will be considered to be within the "dead band". Unaccounted For Gas volumes within the dead band will be regarded as meeting the objectives of this mechanism.

RATE SCHEDULE "GSR"

**GAS SALES SERVICE RATES
(Continued)**

PROCESS

The Company, as part of its annual Gas Sales Service Rate filing in September, will provide the actual Unaccounted For Gas volumes and total gas sendout for the preceding twelve (12) month period, ended July 31, in order that the Unaccounted For Gas can be expressed as a percentage of total gas sendout. This percentage will be compared to the target percentage of three and two tenths percent (3.20%) with a range of plus or minus one-half percent (+/-0.5%) by the Public Service Commission of Delaware Staff. The Staff will review the actual Unaccounted For Gas volumes on an annual basis and review the Delaware Division's performance under this mechanism in the next base rate proceeding.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "RNA"

REVENUE NORMALIZATION ADJUSTMENT

FIRM SALES RATE SCHEDULES

The Revenue Normalization Adjustment (RNA) will be applicable to Customers on Rate Schedules RS-1, ERS-1, RS-2, ERS-2, GS, and EGS.

OVERALL METHODOLOGY

Delivery Service revenues for Customers under the Rate Schedules described above are adjusted quarterly via a separate line item on the bill titled "Revenue Normalization Adjustment." The RNA is calculated to reflect a targeted annual average margin per Customer for each Rate Schedule as established in PSC Docket No. _____. The RNA is determined from the following series of calculations:

- (1) Actual Margin per Customer for month and Rate Schedule - Targeted Normalized Margin per Customer for month and Rate Schedule = the Difference per Customer for month and Rate Schedule;
- (2) Difference per Customer for month and Rate Schedule x the Customer count for month and Rate Schedule = the Over or Under Collection for month and Rate Schedule;
- (3) Total Over or Under Collection for quarter = Sum of the Over or Under Collection for all Rate Schedules subject to the RNA for three months of the quarter;
- (4) Current Quarter RNA Adjustment = Over or Under Collection for the quarter ÷ Projected Sales Volume over the next twelve (12) months for all Rate Schedules subject to the RNA;
- (5) Total RNA Adjustment = the Current Quarter RNA Adjustment + the previous three (3) Quarter RNA Adjustments + the Annual True-Up.
- (6) Annual True-Up = difference between the Projected RNA Collection and Actual RNA Collection for the previous twelve (12) months ÷ by the Projected Sales Volume over the previous twelve (12) months for all Rate Schedules subject to the RNA.

Issue Date:

Effective Date:

Authorization:

**TRANSPORTATION AND BALANCING RIDER
GENERAL TERMS AND CONDITIONS**

1 GENERAL

- 1.1 Transportation service is available to commercial and industrial Customers having consumption equal to, or greater than, 30,000 CCF per year. For purposes of meeting the 30,000 CCF threshold, a Customer may aggregate consumption from accounts it holds for meters located on contiguous properties; or in the case of poultry houses, the properties need not be contiguous but must be set up under a common name for billing purposes to qualify for aggregation to meet the threshold. This service provides the Customer with the ability to purchase their own Gas supply (Customer-owned Gas) and transport, or have transported, such Gas to the Company's distribution system. Transportation service consists of the following components with associated charges: (a) the transportation of the Customer-owned Gas through pipeline systems upstream of the Company, including the interstate pipeline system of Eastern Shore Natural Gas Company (ESNG), (b) the transportation of the Customer-owned Gas through the Company's distribution system to the Company's installed meter, (c) balancing the difference between the Volume of Gas provided by the Customer and the Volume of Gas actually consumed by the Customer on a daily basis, and (d) the resolution of imbalances created by the difference between the Volume of Gas the Customer provided and the Volume of Gas the Customer consumed which may exist at the end of a billing Month. Customers utilizing transportation service will be billed for delivery service, balancing service, Capacity, a one-time transition charge (or credit) for under (or over) collection of gas costs from prior periods, and other charges applicable for the rate schedule under which they are served.
- 1.2 Once approved for transportation service it is necessary for the Customer to execute a firm contract(s) with a Qualified Supplier of Natural Gas and other entities, if necessary, to ensure the firm transportation of such Gas to the Point(s) of Receipt. The Customer is required to notify the Company of the name of its Qualified Supplier prior to the fifteenth (15th) calendar day of the Month preceding the Month for which transportation will commence.

2 DEFINITIONS

Agent: An entity authorized to act on behalf of the Customer, more specifically defined in Section 10 of this Transportation and Balancing Rider.

British Thermal Unit: The amount of heat required to raise the temperature of one (1) pound of water one (1) degree Fahrenheit at 60 degrees Fahrenheit.

Broker: An entity or individual that acts as an intermediary in the sale and purchase of Gas but does not take title to Gas. A Broker can be an Agent.

Issue Date:

Effective Date:

Authorization:

Capacity: The physical space, in dekatherms (DTs), provided by a pipeline for a fixed monthly reservation charge which gives a shipper the right to transport up to a maximum daily Quantity of Gas between defined points on the pipeline's system.

CCF: One hundred (100) cubic feet of Gas.

CCT: Central Clock Time, which includes the recognition of Daylight Savings Time.

Customer: For the purposes of this Transportation and Balancing Rider, Customer shall mean an individual Customer as defined in the Section 16.1 of the Rules and Regulations of this tariff or the aggregation of Customer accounts of one or more contiguous meters in a specific geographic location for the purpose of transporting their own Gas through the Company's distribution system.

Customer-owned Gas: Gas to which the Customer has title clear of any liens and encumbrances.

Daily Contract Quantity (DCQ): The monthly Quantity of Gas scheduled by the Customer to be delivered to the Company's distribution system each Day of the Month, which has been adjusted to account for the Shrinkage Factor.

Flowing Gas: Gas flowing through a pipeline or distribution system excluding Gas taken out of storage.

Gas or Natural Gas: Processed or unprocessed natural gas, vaporized liquid natural gas, synthetic gas, gas from coal seams or any mixture of these gases.

Gas Day or Day: A period of twenty-four (24) consecutive hours, beginning at nine o'clock (9:00) a.m. Central Clock Time (CCT).

Imbalance: Any difference between the Volume of Gas provided by the Customer and the Volume of Gas consumed by the Customer. Nominations are adjusted for thermal content and shrinkage to determine the Volume of Gas provided by the Customer.

Marketer: An entity that purchases and takes title to Gas as an intermediary for sale to a Customer. A Marketer can be an Agent.

MCF: One thousand (1,000) cubic feet of gas.

Month: The period beginning at nine o'clock (9:00) a.m. CCT or the hour otherwise agreed upon by the Customer and the Company on the first Day of the calendar month and ending at the same hour on the first Day of the next succeeding calendar month.

Issue Date: July 21, 2015

Effective Date: For Bills Rendered on and after September 1, 2015

Authorization: Order 8752 in PSC Docket No. 13-383 dated July 21, 2015

Nomination: The Quantity of Gas, adjusted by the Shrinkage Factor, that the Customer is delivering, or having delivered on its behalf, to a Point(s) of Receipt in the electronic format as provided by the Company.

Point(s) of Delivery: The point(s) at the connection at which the Gas leaves the facilities of the Company and enters the downstream facilities of the Customer.

Point(s) of Receipt: The point(s) at the connection at which the Gas enters the facilities of the Company and leaves the facilities of ESNG.

Qualified Supplier: An entity that has met all qualification requirements as stated in Rate Schedule "SUP", and is deemed capable of holding title to the Gas, and causing it to be delivered to the upstream pipeline interconnect on behalf of the customer.

Quantity of Gas: The Volume of Gas adjusted by the Thermal Factor and expressed in dekatherms, unless otherwise specified.

Replacement Shipper: An entity that takes title to Capacity upstream of the Company's distribution system under the terms of the interstate pipeline's tariff.

Shrinkage Factor: A percentage applied to a Nomination to adjust for Gas lost and unaccounted-for within the Company's distribution system. The Shrinkage Factor shall be determined annually and will be the five-year average.

Summer Peaking Customer: A Customer whose lowest DCQ from November to March does not exceed ten percent (10%) of its highest DCQ for the Year.

Thermal Factor: The amount of British Thermal Units in one MCF of Natural Gas divided by one million. The thermal factor for converting between DT and MCF shall be 1.035 unless otherwise specified by the Company.

Volume of Gas: The number of units of Gas expressed in cubic feet, unless otherwise specified.

Year: A period of three hundred sixty-five (365) consecutive Days; provided, however, that any such Year which contains a date of February 29th shall consist of three hundred sixty-six (366) consecutive Days.

3 REQUEST FOR TRANSPORTATION SERVICE

Each prospective transportation Customer, or existing transportation Customer seeking enrollment of a new meter, must submit a completed application on the standard form provided by the Company no later than the first (1st) calendar day of the Month preceding the Month in which the transportation service will commence. Service will be provided by the Company based upon the established criteria referenced within the Customer's applicable rate schedule, available capacity and the Customer providing suitable Gas to the Point(s) of Receipt.

4 CONTRACT FOR SERVICE

A Service Agreement with an initial term of one Year must be executed by each Applicant as a condition of receiving transportation service. The Service Agreement shall specify the date on which service is to begin, Point(s) of Receipt and Point(s) of Delivery, the rate schedule(s) under which service is to be provided and other conditions of receipt by the Company and delivery to the Customer. Transportation of Gas will not begin until a fully executed Service Agreement is completed. Service Agreements must be renewed annually, and received by the Company no later than the fifteenth (15th) calendar day of the Month preceding the Month of renewal in order for the customer to continue participating in the transportation program without an interruption of service. The Company may waive the annual renewal requirement at its discretion.

5 GAS TO BE TRANSPORTED BY THE COMPANY

The Customer is responsible for making all arrangements necessary for transporting the Gas to a Point(s) of Receipt in compliance with pressure requirements established by the Company or any upstream pipeline for such Point(s) of Receipt. Gas received for one Customer will be commingled with the Gas of other customers and suppliers. Gas transported by the Company shall be and remain the property of the Customer.

6 QUALITY OF GAS

Gas received by the Company for the account of the Customer shall be Natural Gas conforming to the quality specifications as provided for in the General Terms and Conditions of the tariff of the pipeline that is interconnected to the Company's distribution system. Any Gas entering the Company's system at a Point(s) of Receipt that is not an interconnection with an interstate pipeline must also meet the "pipeline quality" standard set forth above.

7 TITLE TO GAS

The Customer must have good title to all the Gas that enters the Company's distribution system for transportation to a Point(s) of Delivery. Such title shall be free and clear of all liens, encumbrances, and claims whatsoever. The Customer agrees to indemnify and hold the Company harmless against any loss or cost incurred by the Company on account of liens, encumbrances or claims resulting from any possession or transportation by the Company.

8 LIABILITY

The Company shall not be liable for any loss to the Customer arising from or out of transportation service under any rate schedule, including loss of gas in the possession of the Company. The Company makes no guarantee against and assumes no liability for interruptions of service.

9 METERING AND ASSOCIATED EQUIPMENT

Transportation service of Customer-owned Gas to the Point(s) of Delivery is not expected to require any special metering or communication equipment in excess of what would be needed to provide regular delivery and standard Gas sales service. However, there may be situations which will require knowledge of daily usage by transportation Customers that will require additional equipment. If any additional metering or communication equipment is required to provide transportation service, the Customer will reimburse the Company for such equipment and its installation. The Customer shall provide any electrical supply or phone line needed for the operation of any additional equipment. As referenced in Section 11.2 of the Rules and Regulations of this Tariff, remote reading will be utilized for customers with consumption greater than 100,000 annual CCF.

10 AGENTS ACTING ON BEHALF OF THE CUSTOMER

A Customer may use the services of an Agent to act on its behalf for the delivery of Gas to the Company's distribution system. An Agent can be a Broker, Marketer or a Qualified Supplier. All Customers are required to have a Qualified Supplier on record. If a Customer engages the use of an Agent, it is the responsibility of the Customer to notify the Company, using the standard form provided by the Company, of their designation of such Agent to conduct business on their behalf. A Customer may choose to designate an Agent in addition to their Qualified Supplier. Any notices provided to a Customer's Agent shall be deemed to have been provided to the Customer and the Company shall be held harmless from any actions taken by the Agent.

Issue Date: July 21, 2015

Effective Date: For Bills Rendered on and after September 1, 2015

Authorization: Order 8752 in PSC Docket No. 13-383 dated July 21, 2015

11 COMPANY AS AGENT

The Company may act as Agent for a Customer in securing and transporting Gas supply to a Point(s) of Receipt. The Company shall not be responsible for charges incurred on behalf of the Customer, nor for the performance, non-performance or continued availability of any pipeline or other services. The charges for this service shall be determined by negotiation between the Company and the Customer.

12 DETERMINATION OF DAILY CONTRACT QUANTITY

- 12.1 A Daily Contract Quantity (DCQ) for each Month for the following twelve (12) month period shall be calculated annually by the Company based on usage during the previous three Years, if available. Previous usage shall be adjusted for normal weather in a matter determined by the Company. The Customer will be obligated to have the DCQ delivered each Day of the Month to the agreed upon Point(s) of Receipt.
- 12.2 The Company may approve adjustments to the Monthly DCQs on an ongoing basis due to changes in a Customer's Gas equipment, pattern of usage, or any other information affecting demand that is deemed reliable by the Company. To be considered, such information must be provided to the Company in writing from the Customer or the Customer's Agent.
- 12.3 The Company considers DCQ information to be confidential and proprietary data for the Customer. The Company will only provide usage data to the Customer or the Customer's Agent. If a Customer wishes to authorize a third party to have access to such data the Company must receive a written letter of authorization, on the Customer's official letterhead, and signed by the authority referenced as a contact under the Customer's account information.
- 12.4 The Company will not provide DCQ information to multiple third parties simultaneously. If multiple parties are requesting DCQ information for the same Customer, the Company will provide that data directly to the Customer or to one Agent for such Customer.

13 NOMINATIONS AND SCHEDULING

- 13.1 A Customer's DCQ will be considered their daily Nomination. The Company shall require from either the Customer or the Customer's Agent on record a signed DCQ Nomination form. The Nomination form must be received by the Company via mail, electronic mail, or facsimile transmission no later than the fifteenth (15th) calendar day of the Month prior to the first Day of the Month in which transportation service begins, and annually on that date thereafter. If the nomination cannot be confirmed with the delivering pipeline(s) or other source(s), the nomination will be rejected.

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Authorization: Order 8752 in PSC Docket No. 13-383 dated July 21, 2015

- 13.2 Upon receipt of a completed and properly executed DCQ Nomination form by the Company, the Company will release upstream ESNG transportation Capacity to the Customer, or the Customer's Agent on record, to facilitate the transportation of Gas to the Point(s) of Receipt.
- a. The Customer, or Customer's Agent on record, as the recipient of released Capacity becomes the Replacement Shipper with respect to ESNG.
 - b. For all Customers other than Summer Peaking Customers, the amount of ESNG Capacity to be released will be equal to the highest DCQ within the twelve (12) Months of DCQs calculated.
 - c. For Summer Peaking Customers, the amount of ESNG Capacity to be released will be equal to the monthly calculated DCQ.
 - d. ESNG will invoice the Replacement Shipper for all pipeline Capacity and commodity charges associated with the released Capacity.
- 13.3 Upon the release of Capacity, the Customer, or their Agent on record, shall be responsible for scheduling their DCQ Nomination Quantity on ESNG for the ultimate delivery to the designated Point(s) of Receipt.
- 13.4 Any variance between the Nomination Quantity and the approved DCQ will be subject to a balancing penalty of \$30.00 per DT. Such penalty shall be paid by the Customer in addition to the cost of Gas supply used to serve the customer.
- 13.5 In the event that changes to existing DCQ's, as referenced in section 12.2, are approved, the Customer is required to resubmit their DCQ nomination sheet by the deadline stated in section 13.1.

14 FIRM BALANCING SERVICE

- 14.1 Balancing the difference between the Customer's nominated DCQ and the Volume of Gas consumed by the Customer is performed daily by the Company on a firm basis. The Company will charge a Firm Balancing Service Rate pursuant to the applicable rate schedule under which service is provided.
- 14.2 Any Imbalance for a billing month will be reconciled (*i.e.*, "cashed-in" or "cashed-out") at the Company's weighted average cost at the city gate for Flowing Gas for the calendar month in which most of the billing month occurs. Estimated costs will be used based on nominations made by the Company when the applicable calendar month is not completed before billing the Customer.
- 14.3 For the purposes of Company invoicing, nominated Quantities of Gas shall be converted to CCF using the Thermal Factor and reduced by the Shrinkage Factor to determine the volume actually delivered to the Point(s) of Delivery.

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Authorization: Order 8752 in PSC Docket No. 13-383 dated July 21, 2015

15 INTERRUPTIBLE BALANCING SERVICE

- 15.1 Balancing between the Customer's DCQ and the Volume of Gas consumed by the Customer is performed daily by the Company on an interruptible basis. Imbalances between the Volume of Gas provided by the Customer and the Volume of Gas consumed by the Customer for a billing Month will be cashed-in or cashed-out at the Company's weighted average cost at the city gate for Flowing Gas for the calendar Month in which most of the billing month occurs. Estimated costs will be used based on Nominations made by the Company when the applicable calendar month is not completed before billing the Customer.
- 15.2 The Customer is expected to cease using Gas if the Customer's supply is interrupted. When a supply interruption occurs the Customer must notify the Company immediately upon interruption and upon resumption of supply. During the interruption period the Customer's DCQ will be set to zero for purposes of calculating daily shortfalls and monthly imbalances. Using Gas during a period of supply interruption will subject the Customer to the same penalty rate specified in the interruptible rate schedule for failure to interrupt service unless the Company is not interrupting customers and has Gas supply available. In the later case, the fee specified in 15.3, below, will apply to Gas used during the Customer's supply interruption unless the Customer schedules another service from the Company.
- 15.3 If the Customer, or the Customer's Qualified Supplier, fails to supply the DCQ on any Gas day the Customer shall be billed a fee of \$30.00 per DT for the difference between the DCQ Nomination, which is in DTs, and the Volume actually supplied by the Customer. Such penalty is in addition to any cash-in or cash-out price paid by the Customer for monthly imbalances.
- 15.4 On a daily basis, the Company, in its sole discretion, may limit Customer usage to the Volume of Customer-owned Gas that is delivered to the Company's distribution system.
- 15.5 When the Company interrupts the delivery of Customer-owned Gas to an Interruptible Transportation Customer for distribution system reasons any monthly imbalance up to the total DCQ Volumes delivered to the Company's distribution system by such Interruptible Transportation Customer during the period of interruption will be purchased by the Company at the Customer's cost or the otherwise effective cash-in or cash-out price, whichever is greater.

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Authorization: Order 8752 in PSC Docket No. 13-383 dated July 21, 2015

16 OPERATIONAL FLOW ORDER

At any time that Customer-owned Gas, in the sole judgment of the Company, adversely impacts the Company's distribution system or its ability to serve firm Customers, the Company may issue an Operational Flow Order and refuse to accept Customer-owned Gas at the Point(s) of Receipt or require the Customer to adjust its Nominations up or down. Operational Flow Orders will be issued by the Company eight (8) hours in advance of implementation, unless exigent circumstances dictate a shorter notice period.

RATE SCHEDULE "SUP"

GAS SUPPLIER REQUIREMENTS

AVAILABILITY

The requirements under this Schedule apply to Qualified Suppliers that contract with a Customer to deliver the Customer's Daily Contract Quantity (DCQ) to the Point(s) of Receipt under the General Terms and Conditions of the Transportation and Balancing Rider. To become a Qualified Supplier, a supplier must submit a completed application on the Company's standard form to provide service to Customers under this Schedule and must satisfy the Company's credit requirements set forth below.

RESPONSIBILITY FOR GAS DELIVERY

The Qualified Supplier shall provide the necessary Gas supply to facilitate Nomination and delivery of the Customer's DCQ in accordance with the General Terms and Conditions of the Transportation and Balancing Rider. If the Qualified Supplier has more than one Customer, and has become a Replacement Shipper on behalf of the Customer(s), a Nomination which is the sum for more than one Customer will be made on interstate pipelines upstream of the Company's distribution system but the Quantity of Gas for each Customer must be identified on the Nomination to the Company. Failure to deliver the required Quantity of Gas will make the Qualified Supplier subject to penalties as stated in the General Terms and Conditions of the Transportation and Balancing Rider. If the Qualified Supplier fails to pay any penalties, the Customer for whom the Qualified Supplier is delivering Gas shall be responsible for payment of such penalties.

CREDITWORTHINESS

To become a Qualified Supplier, the supplier must demonstrate to the Company's satisfaction that it has met and continues to meet the creditworthiness criteria of at least one non-affiliated interstate pipeline that delivers Natural Gas to the Company's city gate or to an interstate pipeline that is connected to Eastern Shore Natural Gas. Upon notification by the Company that the supplier no longer satisfies the credit criteria or has failed to timely pay any bill rendered under this Schedule, the supplier is disqualified until such time as satisfactory evidence is provided by the supplier that the supplier's overall financial condition again meets the Company's credit criteria or an acceptable credit enhancement, including but not limited to a cash deposit, letters of credit or surety bonds, is furnished to the Company.

Issue Date: July 21, 2015

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Authorization: Order 8752 in PSC Docket No. 13-383 dated July 21, 2015

TAXES

Any applicable taxes including, but not limited to, the Public Utilities Tax will be added to all charges.

PAYMENT TERMS

Bills are due within twenty (20) calendar days of their date.

LIABILITY LIMITS

The Company shall not be liable for any loss, cost, damage or expense occasioned by the calculation of the DCQ. The Qualified Supplier shall warrant that, at the time of delivery of Gas to the Point(s) of Receipt, it will have good title to deliver all Gas Quantities. The Company shall have no liability with respect to any Gas prior to its delivery to the Point(s) of Receipt or after its delivery to the Point(s) of Delivery.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "ER"

ENVIRONMENTAL RIDER

PURPOSE

The purpose of this rider is to recover reasonable environmental costs associated with cleaning up former manufactured gas plants (MGP). Applicable environmental costs are those incurred as a result of, but not limited to, investigation, testing, monitoring, remediation (including remediation of the groundwater), land acquisition, and legal costs relating to former MGP sites, disposal sites, or sites to which material may have migrated as a result of the earlier operation and/or decommissioning of MGPs. Environmental costs expended will be offset by any payments related to these costs received by the Company from insurance proceeds or from another party. Environmental costs shall not include expenses incurred in connection with litigation by third parties claiming personal injury or by third parties claiming damage to their property as a result of the operation or decommissioning of MGPs or as a result of the migration of materials from MGP sites.

APPLICABILITY

The environmental rider will be applicable to all firm Delivery Service customers.

OPERATION OF THE RIDER

The Company will file with the Commission a copy of the environmental rider computation at least 30 days prior to the proposed effective date, which will be each December 1.

The calculation filed will be supported by all bills and receipts relating to the amount of any environmental costs incurred in the preceding Environmental Cost Year for which the Company seeks to begin recovery. In the same filing, the Company shall include similar material and information to support any expenses and/or recoveries resulting from Third Party claims. The Company shall also submit in its annual filing a projection of environmental costs for the following Environmental Cost Year based on the best information available at the time of filing.

RATE

The rate for the rider effective December 1, 2015 is \$0.0001 per Ccf.

Issue Date: October 29, 2015

Effective Date: For Service Rendered on and after December 1, 2015 – Temporary Basis

Authorization: Order No. 8817 dated November 24, 2015 PSC Docket No. 15-1516

RATE SCHEDULE "ER"

**ENVIRONMENTAL RIDER
(Continued)**

DETERMINATION OF RATE

The rider shall be comprised of an amortization factor and a reconciliation factor as follows:

- (1) Amortization Factor: Recovery of net environmental costs incurred during an Environmental Cost Year will be accomplished through a five (5) year amortization, offset by the tax benefit associated with those environmental costs as defined below. A net annual amortization amount will be calculated for each of the five (5) years of amortization scheduled for the Environmental Cost Year. The amortization factor for any year will be comprised of the total net annual amount scheduled for that year.
- (2) Reconciliation Factor: The reconciliation factor shall be equal to the over/under collection of the environmental cost rider. Over/under collection is the accumulated experienced net over or under recovery of the environmental costs during the twelve (12) month period ending with the month of August immediately preceding the beginning of the next Recovery Year.
- (3) Rider Rate: The rider rate shall be equal to the sum of the amortization and reconciliation factors divided by projected firm sales over the next recovery period of December 1 through November 30. The rate shall be rounded to four (4) decimal places per Ccf.

DEFINITIONS

- (1) Environmental Cost Year is the time period over which environmental costs are incurred and any payments from other parties are netted against the costs. For purposes of this rider, the Environmental Cost Year will be from October 1 through September 30. The Environmental Cost Year will include actual data recorded for the year. Recovery of environmental costs for an Environmental Cost Year will begin with the Recovery Year that starts immediately following the end of the Environmental Cost Year.
- (2) Recovery Year is each December 1 through November 30 and is the time period over which the annually calculated environmental rider rate will be billed to firm customers.

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "ER"

**ENVIRONMENTAL RIDER
(Continued)**

DEFINITIONS (Continued)

- (3) Tax benefit (TB) associated with environmental expenditures shall be calculated as follows:

$$T_{bn} = AEC_n * [5-x]/5 * .1306 * .39742$$

where:

AEC_n = Actual Environmental Costs incurred in Environmental Cost Year "n"

x = The number of years that the Actual Environmental Costs (AEC) incurred in Year "n" have been subject to amortization ($x = 1, 2, 3,$ and 4)

$.1306$ = Before Tax Cost Rate

$.39742$ = Effective Combined Federal and State Income Tax Rate.

The Before Tax Cost Rate of $.1306$ and the Effective Combined Federal and State Income Tax Rate of $.39742$ are the rates at the time of implementation of this rider and are subject to change. Any change in the Before Tax Cost Rate will be implemented starting when the next Rider Rate is calculated for the next Recovery Year. Any change in the Effective Combined Federal and State Income Tax Rate will be implemented starting with the recovery calculation for next Environmental Cost Year that ends after the rate changes.

Issue Date: September 2, 2008

Effective Date: For Bills Rendered on and after September 3, 2008

Authorization: Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186

MISCELLANEOUS CUSTOMER CHARGES

1 CONNECTION CHARGE

Each Applicant for gas service shall pay to the Company a Connection Charge of thirty-five dollars (\$35) before gas service is activated by the Company at the Customer's premises. Such Connection Charge shall not be collected from builders or other contractors activating gas service during the construction of a premises prior to occupation by the Company's customer of record.

2 RECONNECTION CHARGE

Whenever a Customer's gas is turned off at Customer's request, or Customer's meter disconnected by reason of non-compliance with these Rules and Regulations or orders of the Public Service Commission of Delaware, a Reconnection Charge of thirty five dollars (\$35) must be paid and other satisfactory arrangements made with the Company prior to 3:00p.m. of a normal business day before the account is reactivated and gas service reconnected by the end of the next business day.

3 AFTER HOURS SERVICE CONNECTION OR RECONNECTION CHARGE

If the Customer desires that the initial gas service connection or gas service reconnection following disconnection by the Company for any reason, be completed on the same day as the request is received by Company or outside the Company's normal business hours, such After Hours Reconnection may be performed, subject to the availability of Company personnel. The After Hours Connection or Reconnection Charge shall be sixty dollars (\$60).

4 SEASONAL RECONNECTION CHARGE

Whenever a residential Customer's gas is turned off or Customer's meter disconnected by the Company at Customer's request and the account placed on inactive status, and such account is reactivated by the same Customer no less than thirty (30) days and no more than one hundred eighty (180) days from the date of the disconnect, a Seasonal Reconnection Charge equal to the monthly Customer Charge in the Customer's applicable Rate Schedule for each month the account was inactive, plus the Reconnection Charge provided in 2 (above), shall be paid. Such payment, along with other satisfactory arrangements for reconnection, shall be made with the Company for reconnection the following normal business day.

Issue Date:

Effective Date:

Authorization:

MISCELLANEOUS CUSTOMER CHARGES (Continued)

5 FIELD COLLECTION CHARGE

Service interruptions may be avoided by paying the overdue amount prior to the past due date of the gas bill, or by paying the overdue amount plus a collection fee of seventeen dollars (\$17) to the Company or an authorized agent of the Company.

6 RETURNED PAYMENT CHARGE

Payment for Services provided under this Tariff, Customer deposits, or other Tariff charges which are returned unpaid by the Customer's bank or other financial institution shall result in an additional charge of twenty dollars (\$20) per occurrence, and will be charged against the Customer's account. Failure to pay the full amount of the bill including the Returned Payment Charge may result in discontinuance of the Customer's service. After the second returned payment the Company reserves the right to notify the Customer that an alternate payment method (other than a personal check or bank debit) will be required for payment of the Company's bill statements.

7 CHANGE OF ACCOUNT CHARGE

If the change of occupants in a premise with existing gas service occurs without a physical service disconnection, a Change of Account may occur. The Company shall bill to the applicant a Change of Account Charge in the amount of seventeen dollars (\$17).

8 FAILED TRIP CHARGE

In the event a Customer, or other entity, requesting service from the Company that requires a field visit to a premise, fails to keep a scheduled appointment with the Company's employee at said premises to provide a service requested by the Customer, the Customer shall pay a Failed Trip Charge of thirty-five dollars (\$35).

Issue Date:

Effective Date:

Authorization:

RATE SCHEDULE "TSFF"

TOWN OF SMYRNA FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the Town of Smyrna franchise fee, from all customers within the limits of the Town of Smyrna in accordance with the Franchise Agreement between the Company and the Town of Smyrna. This franchise fee will be in effect until December 31, 2029.

APPLICABILITY

The Town of Smyrna Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the Town of Smyrna.

RATE

The rate applicable to all Delivery Service throughput is \$.0181 per Ccf.

Issue Date: April 17, 2015

Effective Date: For Bills Rendered on and after June 3, 2015

Authorization: Order No. 8745 dated June 2, 2015 in PSC Docket No. 15-0950

RATE SCHEDULE "CMFF"
CITY OF MILFORD FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the City of Milford franchise fee, from all customers within the limits of the City of Milford in accordance with the Franchise Agreement between the Company and the City of Milford. This franchise fee will be in effect until June 27, 2019.

APPLICABILITY

The City of Milford Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the City of Milford, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.010 per Ccf.

Issue Date: September 2, 2008

Effective Date: For Bills Rendered on and after September 3, 2008

Authorization: Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186

RATE SCHEDULE "TGFF"

TOWN OF GEORGETOWN FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the Town of Georgetown franchise fee, from all customers within the limits of the Town of Georgetown in accordance with the Franchise Agreement between the Company and the Town of Georgetown. This franchise fee will be in effect until June 27, 2021.

APPLICABILITY

The Town of Georgetown Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the Town of Georgetown, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.010 per Ccf.

Issue Date: September 2, 2008

Effective Date: For Bills Rendered on and after September 3, 2008

Authorization: Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186

RATE SCHEDULE "MBFF"

TOWN OF MILLSBORO FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the Town of Millsboro franchise fee, from all customers within the limits of the Town of Millsboro in accordance with the Franchise Agreement between the Company and the Town of Millsboro. This franchise fee will be in effect until September 4, 2021.

APPLICABILITY

The Town of Millsboro Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the Town of Millsboro, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.0181 per Ccf.

Issue Date: September 2, 2008

Effective Date: For Bills Rendered on and after September 3, 2008

Authorization: Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186

RATE SCHEDULE "MTFF"

TOWN OF MILTON FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the Town of Milton franchise fee, from all customers within the limits of the Town of Milton in accordance with the Franchise Agreement between the Company and the Town of Milton. This franchise fee will be in effect until January 7, 2032.

APPLICABILITY

The Town of Milton Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the Town of Milton, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.0181 per Ccf.

Issue Date: December 2, 2008

Effective Date: For Bills Rendered On And After February 1, 2009

Authorization: Order No. 7520 dated January 29, 2009 in PSC Docket No. 08-412T

RATE SCHEDULE "SFFF"

CITY OF SEAFORD FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the City of Seaford franchise fee, from all customers within the limits of the City of Seaford in accordance with the Franchise Agreement between the Company and the City of Seaford. This franchise fee will be in effect until June 23, 2033.

APPLICABILITY

The City of Seaford Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the City of Seaford, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.0181 per Ccf.

Issue Date: December 2, 2008

Effective Date: For Bills Rendered On And After February 1, 2009

Authorization: Order No. 7519 dated January 29, 2009 in PSC Docket No. 08-411T

RATE SCHEDULE "DBFF"

TOWN OF DAGSBORO FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the Town of Dagsboro franchise fee, from all customers within the limits of the Town of Dagsboro in accordance with the Franchise Agreement between the Company and the Town of Dagsboro. This franchise fee will be in effect until December 20, 2022.

APPLICABILITY

The Town of Dagsboro Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the Town of Dagsboro, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.0181 per Ccf.

RATE SCHEDULE "CLFF"

CITY OF LEWES FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the City of Lewes franchise fee, from all customers within the limits of the City of Lewes in accordance with the Franchise Agreement between the Company and the City of Lewes. This franchise fee will be in effect until September 11, 2031.

APPLICABILITY

The City of Lewes Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the City of Lewes, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.0181 per Ccf.

Issue Date: September 19, 2011
Effective Date: For Bills Rendered On And After November 19, 2011
Authorization: Order No. 8071 in PSC Docket No. 11-401T dated November 8, 2011

RATE SCHEDULE "SBFF"

TOWN OF SELBYVILLE FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the Town of Selbyville franchise fee, from all customers within the limits of the Town of Selbyville in accordance with the Franchise Agreement between the Company and the Town of Selbyville. This franchise fee will be in effect until June 11, 2027.

APPLICABILITY

The Town of Selbyville Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the Town of Selbyville, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.0181 per Ccf.

Issue Date: June 18, 2012

Effective Date: For Bills Rendered On And After August 20, 2012

Authorization: Order No. 8195 in PSC Docket No. 12-276T dated August 7, 2012

RATE SCHEDULE "TFFF"

TOWN OF FREDERICA FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the Town of Frederica franchise fee, from all customers within the limits of the Town of Frederica in accordance with the Franchise Agreement between the Company and the Town of Frederica.

APPLICABILITY

The Town of Frederica Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the Town of Frederica, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.010 per Ccf.

Issue Date: October 31, 2014

Effective Date: For Bills Rendered On And After February 1, 2015

Authorization: Order No. 8697 in PSC Docket No. 14-0495 dated January 6, 2015



RULES AND REGULATIONS

GOVERNING THE DISTRIBUTION

AND SALE OF GAS

OF

CHESAPEAKE UTILITIES CORPORATION

IN

NEW CASTLE, KENT & SUSSEX COUNTIES, DELAWARE

Issue Date: **September 2, 2008**

Effective Date: **For Bills Rendered on and after September 3, 2008**

Authorization: **Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186**

CHESAPEAKE UTILITIES CORPORATION
DELAWARE DIVISION

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Issue Date: September 2, 2008

Effective Date: For Bills Rendered on and after September 3, 2008

Authorization: Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186

CHESAPEAKE UTILITIES
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Issue Date: ~~November 5, 2013~~

Effective Date: ~~For Bills Rendered on and after December 1, 2013~~

Authorization: ~~Order No. 8479 in PSC Docket No. 12-292 dated November 5, 2013~~

CHESAPEAKE UTILITIES CORPORATION
DELAWARE DIVISION

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Issue Date: ~~October 31, 2014~~

Effective Date: ~~For Bills Rendered On And After February 1, 2015~~

Authorization: ~~Order No. 8697 in PSC Docket No. 14-0495 dated January 6, 2015~~

RULES AND REGULATIONS

SECTION I - GENERAL

1.1 FILING AND POSTING

A copy of this Tariff, which is the rates, rules and regulations under which gas service will be supplied by Chesapeake Utilities Corporation to its Customers, is on file with the Public Service Commission of Delaware, and is posted and open for inspection at the offices of the Company. The Tariff is supplementary to any Regulations of that Commission.

1.2 REVISIONS

This Tariff may be revised, amended, supplemented and otherwise changed from time to time in accordance with the Public Service Commission Law of Delaware, and such changes, when effective, shall have the same force and effect as the present Tariff.

1.3 APPLICATION OF TARIFF

The Tariff provisions apply to any party or parties receiving gas service from the Company, or to its successors and assigns, under the rates set forth therein, and the receipt of gas shall constitute the receiver a Customer of the Company as the term is used herein.

1.4 RULES AND REGULATIONS

The Rules and Regulations, filed as a part of this Tariff, are a part of every contract or agreement for service, whether written, oral or implied, made by the Company and govern all classes of service where applicable. Subject to the approval of the Commission, the Company shall have the right to interpret and determine the applicability of such rules and regulations.

1.5 STATEMENT OF AGENTS

No agent or employee of the Company has authority to make any promise, agreement or representation inconsistent with the provisions of this Tariff.

Issue Date: September 2, 2008

Effective Date: For Bills Rendered on and after September 3, 2008

Authorization: Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186

RULES AND REGULATIONS

SECTION II - CURTAILMENT

2.1 GENERAL

In the event that the Company determines that there is insufficient gas supply to meet the demands of the Customers on its distribution system, the Company may, at its sole discretion, curtail service to Customers. Curtailments will be made to maintain supply to its firm sales customers in the priorities set forth below. When curtailment is necessary, sufficient gas will be available to maintain a temperature which will keep the building pipes from freezing and other plant protection use, if possible. Prior to, or in conjunction with curtailment the Company may call for voluntary usage reductions on the part of all Customers.

2.2 DEFINITIONS

Essential Human Needs: Includes residences, apartments, hotels, motels, dormitories, hospitals, nursing homes, police and other institutions essential to the public welfare.

Plant protection use: Minimum volumes of natural gas required to prevent physical harm to the plant facilities' processes or danger to plant personnel when such protection cannot be afforded through the use of an alternative fuel. Plant protection requirements include volumes necessary for the protection of such material in process as would otherwise be destroyed, but does not include deliveries required to maintain production.

2.3 CURTAILMENT PRIORITIES

Curtailment to the extent necessary as determined by the Company, up to and including complete curtailment shall be done in accordance with the following list of priorities, starting with the lowest priority, priority 6.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

**RULES AND REGULATIONS
SECTION II
(Continued)**

2.3 CURTAILMENT PRIORITIES (continued)

Priority 1: Essential humans needs ~~C~~eustomers.

Priority 2: All other customers other than ~~P~~priority 1 ~~C~~eustomers will be curtailed to the extent necessary as determined by the Company.

Priority 3: Firm commercial and industrial ~~C~~eustomers using above 4,000 Ccf per year.

Priority 4: Firm commercial and industrial ~~C~~eustomers using above 15,000 Ccf per year.

Priority 5: Firm commercial and industrial ~~C~~eustomers using above 100,000 Ccf per year.

Priority 6: All interruptible transportation and IBE ~~C~~eustomers.

2.4 CURTAILMENT OF CUSTOMER-OWNED GAS

If adequate supply to priority essential human needs ~~C~~eustomers is threatened in the Company's judgment, Customer-owned transportation gas may be curtailed in addition to system supply and in the same order of priorities. In the event that Customer-owned gas is diverted for use by higher priority ~~C~~eustomers, the Company will reimburse the Customer by paying the cost of the Customers alternative fuel or, if the Customer has no alternative fuel, reimbursement will be at a ~~price equivalent to No. 2 fuel oil, rate equal to the higher of the Company's weighted average cost of gas (the total cost of natural gas delivered to the Company for system supply divided by the volume delivered) or the Customer's total acquisition cost of gas (including pipeline transportation charges).~~ In the event of a supply shortage which causes the Company to purchase the Customer's gas, the Customer shall make available a copy of its contract for natural gas supply upon request; or in lieu thereof, the Customer shall supply a sworn affidavit specifying Customer's total acquisition cost of gas. In lieu of this provision, the Company may enter into contractual or informal arrangements with transportation Customers or any other parties to obtain supplies to avoid curtailments.

2.5 LIABILITY

The Company shall not be liable for any damages, loss of product, or other business losses suffered by Customers as a result of curtailed gas service, other than the compensation provided in ~~paragraph Section~~ 2.4 above. The Company shall not be liable for curtailment as a result of any action by any governmental agency with jurisdiction to regulate, allocate, or control gas supplies or the rendition of service, and regardless of any defect in such law, regulation, or order.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RULES AND REGULATIONS

SECTION II (Continued)

2.6 ADDITIONAL LOADS

In the event that additional gas supply becomes limited for any reason, the Company reserves the right to defer supplying gas for new loads in such manner as to cause the least hardship to present or prospective ~~C~~customers, taking into consideration the volume of natural gas available and the capacities of local mains and facilities. In each of the listed classes, present ~~C~~customers will be allowed to increase loads before new ~~C~~customers will be allowed to begin service.

During any period when gas supply is expected to be limited the Company will maintain a Register of New Loads applied for, but not already being served by the Company, in order to assist the Company in forecasting peak demands for its service, and to afford a basis of priority in supplying additional loads to existing as well as to new or prospective ~~C~~customers.

During any period of restricted gas supply the Company will not supply gas for any equipment unless application for such load was registered with the Company prior to the connection of such equipment, and approval thereof was given by the Company.

The priority in which additional loads will be accepted is:

| | <u>DESCRIPTION</u> | <u>TYPE</u> |
|-----|---|---|
| (1) | Non-space heating load Peak day less than 1,000 cu. ft. | Residential |
| (2) | Non-space heating load Peak day less than 1,000 cu. ft | Commercial Industrial |
| (3) | Space heating load Peak day less than 2,000 cu. ft. | Residential Commercial Industrial |
| (4) | Dwelling Units - Home or Apartments Individually Billed Not to exceed 25 units at one location. | Residential |

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RULES AND REGULATIONS

SECTION II (Continued)

2.6 ADDITIONAL LOADS (continued)

| | <u>DESCRIPTION</u> | <u>TYPE</u> |
|------|---|--------------------------|
| (5) | Dwelling Units - Home or Apartments Master Metered Not to exceed 25 units at one location | Commercial |
| (6) | Non-space heating load Peak day not to exceed 10,000 cu ft | Commercial Industrial |
| (7) | Space Heating Load Peak day less than 10,000 cu. ft. | Commercial Industrial |
| (8) | Same as (4) above except in increments of 26 to 100 units at one location. | |
| (9) | Same as (5) above except in increments of 26 to 100 units at one location. | |
| (10) | Same as (4) above except in increments of over 100 units at one location. | |
| (11) | Same as (5) above except in increments of over 100 units at one location. | |
| (12) | All other commercial and industrial loads. | |

The Company reserves the right to establish priority of loads in accordance with volume within each category above.

The Company reserves the right to allocate gas to various priority categories listed above based on estimated gas sales and gas supply and to make adjustments as actual figures vary from the estimate.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RULES AND REGULATIONS

SECTION II (Continued)

2.6 ADDITIONAL LOADS (continued)

When anticipated gas supplies are not sufficient to service all new loads applied for in one of the above categories, priority will be given in the order in which application was registered with the Company, provided the new load is connected within a reasonable time after notice from the Company that it may be served.

When the evidence available to the Company reasonably indicates that a ~~C~~**e**ustomer has connected additional load without registering same or in violation of the Company's notice that it may not be connected, the Company will discontinue all service to such ~~C~~**e**ustomer, upon ten ~~(10)~~ days' written notice, until such additional load has been disconnected.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RULES AND REGULATIONS

SECTION III - APPLICATION FOR SERVICE

3.1 APPLICATION

Application for gas service may be made through the local office of the Company or authorized agent, by:

- (a) Verbal or telephonic request to a business office of the Company, or
- (b) Electronic request to the Company's web site (www.chpkgas.com), or
- (c) if required by the Company, by submission to the Company a completed Gas Delivery Service Application (certain Applicants may be required to execute a Transportation Service Agreement).

The Company reserves the right to require the Applicant before any gas is delivered, to execute an application at the local office with proper identification. The application does not constitute a commitment by the Company to serve the Applicant.

3.2 RIGHT TO REJECT

The Company may place limitations on the amount or character of service it will supply, or may reject applications for any of the following reasons:

- (a) Until the Customer has complied with the state and municipal regulations governing gas service.
- (b) If the Company does not have adequate facilities to render the service desired.
- (c) If such service is of a character that it is likely to unfavorably affect service to other Customers.
- (d) If, in the judgment of the Company, the Applicant's installation of piping or gas equipment is hazardous, or of such a character that satisfactory and safe service cannot be rendered.
- (e) If an extension of street main, except as set forth under Section 6 - Extensions, is required to furnish such service.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RULES AND REGULATIONS

SECTION III (Continued)

3.2 RIGHT TO REJECT (Continued)

- (f) When it is necessary to conserve the supply of gas (See Section ~~H~~2.3 Curtailment Priorities and 2.6 Additional Loads.)
- (g) Customer's failure to provide a deposit to insure payment of bills, where requested by the Company under the provisions of Section 13.2.
- (h) Customer's failure to make such payment as may be required under Section 6 as a condition of extension of supply facilities.
- (i) Customer's failure to pay the Connection Charge, Reconnection Charge or Seasonal Customer Charge.
- (i) Service at new location will be rendered only when all bills for gas service to the Customer at any other locations have been paid.
- (j) Non-compliance with provisions of this ~~T~~ariff.

3.3 ACCEPTANCE

Acceptance of gas service by the Customer shall constitute an agreement to accept service under these Rules, Regulations and Rates as amended from time to time, the Orders or Rules of the Public Service Commission of Delaware, the Laws of the State of Delaware and the Laws of the United States of America.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RULES AND REGULATIONS

SECTION III (Continued)

3.4 CUSTOMER TO SPECIFY TIME WHEN SERVICE IS CONNECTED

A Customer shall give two (2) business days' notice to the Company for gas service to be connected during normal business hours, under normal operating conditions. Business days shall mean Monday through Friday excluding Federal Banking Holidays. As a safety precaution, the Customer, or an ~~adult-authorized~~ representative of the Customer of at least eighteen (18) years of age, shall be present at the premises for gas service to be connected. If, due to unforeseen or emergency circumstances, the Company is not able to meet the two (2) business day connection schedule, the Customer shall be informed, and a new arrangement made. The Connection Charge provided on Sheet No. 46 (Miscellaneous Customer Charges) shall apply to all gas service connections. If necessary for the Customer's convenience, ~~and if he so directs,~~ that the connection be made after normal working hours, the After Hours Connection Charge provided on Sheet No. 46 (Miscellaneous Customer Charges) shall apply.

3.5 POINT OF DELIVERY

- (a) The point of delivery of gas to a Customer shall be at the outlet side of the meter connection, ~~at which point~~ title to the Company owned gas shall pass to the Customer at this point. The use of Service on two or more separate meters will not be combined for billing purposes.
- (b) (Exception) Combined billings for registrations of multiple meters installed on a customer's premises is permitted only where such multiple meters are installed for the convenience of the Company.

3.6 CHARACTER OF GAS

The gas to be served will be natural gas with a specific gravity of approximately .60, a minimum value per cubic foot of one thousand (1,000) BTU, and that is in conformance with the quality specifications of transporters delivering such gas to the Company's Delivery Receipt Points, or such other gas as may be approved by the Public Service Commission of Delaware. The Company shall have the right to supply stand-by or peak shaving gas of similar characteristics when necessary.

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RULES AND REGULATIONS

SECTION IV – CUSTOMER’S INSTALLATIONS

4.1 INFORMATION FROM CUSTOMER

Anyone desiring to equip ~~his-their~~ premises for the use of gas shall communicate with the Company personally, or through ~~his-their~~ contractor or other authorized agent, giving the exact location of the premises and details of all gas consuming equipment to be installed.

4.2 POINT OF CONNECTION

The Company will designate the point where the ~~a~~Applicant would, if served, be required to terminate ~~his-their~~ piping for connection to the lines of the Company. The furnishing of such information does not constitute an agreement, or obligation, on the part of the Company to render service.

4.3 METER SPACE

The ~~a~~Applicant shall provide, free of expense to the Company, a space satisfactory to the Company for meters, regulators or other equipment of the Company which is necessary for the rendering of adequate and safe service. The Company reserves the right to establish the standard as to the location of such space in accordance with pressure conditions, volumes, and other pertinent factors.

4.4 METER LOCATION

The Company shall have the right to determine the location of its meters, which must be placed where they will be easily accessible, and the Customer or ~~o~~Owner of the building shall provide at all times, ~~maintain~~-free of expense to ~~this-the~~ Company, proper space for ~~this-the~~ Company’s meters. Likewise, the Customer ~~is warned~~shall not ~~to~~-permit materials of any character to be piled up or heaped around the meter location. The Customer shall reimburse ~~this-the~~ Company for the loss of, or any damage to, its meters and meter connections, or other property of the Company while located on the Customer’s premises, arising out of or caused by ~~the~~ Customer’s negligence, carelessness; or that of ~~his-servants,~~the Customer’s agents, employees, members of ~~his-the Customer’s~~ household, or any person upon ~~his-the Customer’s~~ premises under or by authority of ~~his-the Customer’s~~ consent or sufferance.

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RULES AND REGULATIONS

SECTION IV (Continued)

4.5 METER CONNECTIONS

~~This~~The Company will own, furnish, and maintain the meter, regulator, meter connection, electronics, remote reading device, if any, and all other appurtenant equipment required to measure the gas supplied to the Customer, and will supply gas only through a meter furnished and owned by the Company. ~~This~~The Company must be notified when the Customer desires to have the meter installed, changed or removed.

4.6 TEMPORARY SERVICE

The Customer shall pay the cost for all material, labor and all other necessary expense incurred by the Company in supplying gas service to the Customer for any temporary purpose or use, and shall pay the cost of removing material after service is discontinued, in addition to the regular payments for gas used. The Company will credit the Customer with the reasonable salvage value of any material recovered.

4.7 SERVICE LINES

The Company will own and maintain at its expense, the service line to the point of connection designated by the Company. (See Section 6.1 Service Connections).

4.8 HOUSE PIPING

Prior to the installation of house piping by the Customer in new or altered premises, inquiry should be made of the Company to determine the requirements, sizes of pipe, quality and other specifications.

Customer's installation shall be installed at the Customer's expense and shall be maintained by the Customer in compliance with applicable codes.

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RULES AND REGULATIONS

SECTION IV (Continued)

4.9 INTERFERENCE WITH COMPANY FACILITIES

The Customer shall not open, tamper or interfere with, in any manner, the service line, regulators, or safety appliances installed in connection with service provided to the Customer. The Company's main, service line, service cock, curb box and meter shall not be tampered or interfered with at any time. In the event of the Company's meters or other property being tampered or interfered with, the Customer being supplied through such equipment shall pay the amount which may be reasonably estimated to be due for service used but not registered on the Company's meter, and for any repairs, replacements or changes in facilities required, as well as for costs of inspections, investigations and protective installations.

4.10 RESPONSIBILITY OF CUSTOMER

This Company's ownership and responsibility terminates at the meter outlet. The Customer is warned of the risk of damage to property and the possibility of fire or personal injury resulting from improper house piping and manner of attachment or use and maintenance of gas appliances, fixtures, and apparatus, and is advised to permit no one except experienced and capable pipe fitters to install or to make any changes, alterations, additions or repairs to any part of the Customer's installation. ~~This~~The Company will not be liable for any injury or damage or loss of gas caused by reason of defects in any portion whereof.

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RULES AND REGULATIONS

SECTION V - TESTING AND INSPECTION OF CUSTOMER'S PIPING

5.1 REQUIREMENT

Prior to providing gas service, the Customer's facilities and appliances must be in accordance with the ~~n~~National and ~~l~~Local ~~c~~Code requirements.

5.2 COMPANY'S RIGHT TO INSPECT

The Company shall have the right, but shall not be obliged, to inspect any installation before gas is introduced or at any later time, and reserves the right to reject any piping or appliances not in accordance with the Company's standard requirements, or with any national and local code requirements; but such inspection, or failure to inspect, or to reject, shall not render the Company liable or responsible for any loss or damage, resulting from defects in the Customer's installation, piping or appliances, or from violation of ~~the C~~company rules, or from accidents which may occur upon the premises of the Customer.

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RULES AND REGULATIONS

SECTION VI – SERVICE INSTALLATIONS AND MAIN EXTENSIONS

6.1 SERVICE INSTALLATIONS

The Company will install the service line from its existing distribution main to the Customer's meter location at its expense. However, if the service line exceeds seventy-five (75) feet in length, the Company's initial investment in the entire service installation shall be limited to six (6) times the related estimated annual base tariff revenue excluding all fuel costs ("net revenue") from the Customer. The amount of the investment that exceeds the six (6) times net revenue test for the service installation shall be paid by the Customer in accordance with the terms of Section 6.3.

Service Installations, as used in this section for purposes of the six (6) times net revenue test, refers to the costs associated with the service line piping, meter installation and associated materials from the tap on the Company's gas distribution main system up to and including the Customer's meter.

6.2 MAIN EXTENSIONS

Main extensions to the Company's gas system shall be provided, owned and maintained under the terms and conditions stated herein. Main extensions, as used in this section for purposes of the economic evaluation criteria, refers to the cost of gas distribution mains and associated materials that must be constructed along public streets, roads and highways, or on private property from the Company's existing gas distribution main system to the initiation of the service line. Main extensions are limited to the extent of new investment warranted by the anticipated revenues as stated in this Section VI.

New Residential Development

The economic evaluation criteria for installing natural gas service to the new residential development will be based on an Internal Rate of Return Model ("IRRM") with certain predetermined conditions and guidelines. The applicable procedures and guidelines in the implementation of the IRRM are on file with and have been approved by the Public Service Commission of Delaware. The procedure used to determine whether a financial guarantee will be required from a Customer(s) is part of the IRRM methodology on file with the Commission.

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RULES AND REGULATIONS

SECTION VI – SERVICE INSTALLATIONS AND MAIN EXTENSIONS (Continued)

6.2 MAIN EXTENSIONS (Continued)

New Residential Development

~~The economic evaluation criteria for installing natural gas service to the new residential development will be based on an Internal Rate of Return Model (“IRRM”) with certain predetermined conditions and guidelines. The applicable procedures and guidelines in the implementation of the IRRM are on file with and have been approved by the Delaware Public Service Commission of Delaware. The procedure used to determine whether a financial guarantee will be required from a Customer(s) is part of the IRRM methodology on file with the Commission.~~

When evaluating potential multi-family housing projects, if the IRRM demonstrates that the anticipated revenues warrant an investment greater than the cost of the main extension and service connection, then the Company may, at its sole discretion, provide a contribution to the Customer to offset costs incurred for the installation of gas piping and venting in the premise. The contribution provided by the Company may not exceed the amount that is warranted by the anticipated revenues and, in any event, may not exceed the actual cost for installation of gas pipe and venting in the premise. A project will be determined to be a multi-family project if there are at least four (4) individually metered dwelling units in one premise. When providing a contribution to offset costs related to the installation of gas piping and venting, the Customer bears all responsibility for proper installation and maintenance of all pipe beyond the Company's meter.

Existing Residential Developments

The economic evaluation criteria for installing natural gas service to an existing residential development will be based on an Internal Rate of Return Model (“IRRM”) with certain predetermined conditions and guidelines. The applicable procedures and guidelines in the implementation of the IRRM are on file with and have been approved by the ~~Delaware~~ Public Service Commission of Delaware. The procedure used to determine whether a financial guarantee will be required from a Customer(s) is part of the IRRM methodology on file with the Commission.

Commercial and Industrial Main Extensions

The economic evaluation criteria for installing natural gas service to commercial and industrial ~~C~~customers, including transportation and non-firm ~~C~~customers, will be the six (6) times net revenue test based on the commercial and industrial ~~C~~customers' estimated level of annual non-fuel revenue. The estimated annual non-fuel revenue is defined as the estimated annual base ~~T~~tariff revenue or delivery service revenue excluding all fuel related costs for the respective ~~C~~customer. If the estimated

investment in the facilities necessary to provide gas service exceeds six (6) times the related annual non-fuel revenue from the respective Customer(s), the Customer(s) shall provide a financial guarantee in accordance with the terms of Section 6.3._

The economic evaluation criteria for negotiated contracts for compression services will be the IRRM and will include the Company's cost of installing Company-owned and maintained compression facilities to meet the pressure demands specified by the Customer.

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RULES AND REGULATIONS

SECTION VI – SERVICE INSTALLATIONS AND MAIN EXTENSIONS (Continued)

6.3 FINANCIAL GUARANTEES

Financial ~~g~~**G**uarantees may be made by a Contribution in Aid of Construction (“CIAC”), a Customer Advance, a Letter of Credit, or other financial guarantee at the Company’s discretion.

Should the Customer provide a Customer Advance, the Company will provide, in a written agreement with the Customer, for refunds (without interest) of all, or part, of the monies advanced by the Customer in connection with the extension and the applicable economic evaluation criteria. Refunds to the Customer shall extend over a term of years, not to exceed six ~~(6)~~**(6)** years, upon such basis or conditions as may be mutually agreeable to the Company and the Customer, and specified in the written agreement. In no case shall the total refund be greater than the Customer’s deposit. Any portion of the deposit remaining after the expiration of the term as specified in the written agreement shall be retained by the Company and credited as a Contribution In Aid of Construction.

Should the Customer provide a Letter of Credit or other financial guarantee, the estimated revenue attributable to the extension shall be examined prior to the expiration of the Letter of Credit or other financial guarantee. The Company may either draw on the Letter of Credit or other ~~-~~financial guarantee or require that it be renewed, where a continued financial guarantee is still required.

6.4 RIGHT TO DETERMINATION

In each and every situation where the Company and the prospective Customer cannot agree as to the necessity for a financial guarantee to be borne by the prospective Customer, the prospective Customer will be advised by the Company of the right to have the matter determined by the Public Service Commission ~~of Delaware~~**of Delaware** under 26 ~~Del Code~~**Del Code**, Section 203.

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RULES AND REGULATIONS

**SECTION VI – SERVICE INSTALLATIONS AND MAIN EXTENSIONS
(Continued)**

6.5 OWNERSHIP AND MAINTENANCE

The Company shall own, maintain and renew all its equipment, between the main and the outlet side of the meter connection.

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RULES AND REGULATIONS

SECTION VII - RIGHTS-OF-WAY/OR EASEMENTS

7.1 RIGHTS-OF-WAY AND/OR EASEMENTS

The ~~A~~applicant(s) ~~or applicants~~ requesting service shall furnish, without expense to the Company, and to the Company's satisfaction, rights-of-way and/or easements necessary for the supply of service or shall agree to reimburse the Company for expense incurred in the procurement of the necessary rights-of-way and/or easements. The Company shall first exercise reasonable efforts to procure any necessary rights-of-way and/or easements from the land owner for nominal consideration or without charge to the Company and the ~~A~~applicant(s) ~~or applicants~~ requesting service.

7.2 TERM AND RENTALS

When, to serve a Customer, it is necessary to extend the Company's facilities over the property of another, the Customer shall accept service for such term as is provided in the permit or agreement covering the location and maintenance of such facilities on the land or property of others. The Customer may be required to reimburse the Company for any and all special, or rental, charges that may be made for such rights by said permit or agreement.

7.3 GRADING

Rights-of-way, easements and service routes must be cleared and graded to within ~~six (6)~~ inches of final grade by the ~~A~~applicant including certification by the ~~A~~applicant that such grade has been achieved before the ~~utility Company~~ will commence construction. Such clearing and grading must be maintained by the ~~A~~applicant during construction by the ~~utility Company~~.

7.4 CHANGE IN GRADE

If subsequent to any agreement to construct by the Company, the clearance or grade is changed in such a manner as to require relocation of pipelines or other facilities, the cost of such relocation shall be borne by the ~~A~~applicant, or ~~the Applicant's~~his executor, administrator, heir or successor.

7.5 DELAYS

Application for service from an extension to be constructed where a right-of-way and/or easement is not owned by the Company, will only be accepted subject to delays incident to obtaining a satisfactory right-of-way and/or easement.

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RULES AND REGULATIONS

SECTION VIII - COMPANY EQUIPMENT ON CUSTOMER'S PREMISES

8.1 MAINTENANCE

The Company shall keep in repair and maintain its own property installed on the premises of the Customer.

8.2 RESPONSIBILITY OF CUSTOMER

The Customer shall not cause damage to the equipment of the Company on ~~his~~the Customer's premises, and shall not permit any person, except a Company employee having proper Company identification, to break any seals upon, or do any work on any meter, service pipe or other equipment of the Company located on the Customer's premises.

8.3 TAMPERING

In the event of the Company's meters or other property being tampered or interfered with, the Customer being supplied through such equipment shall pay the amount which may be reasonably estimated to be due for service used but not registered on the Company's meter, and for any repairs, replacements or changes in facilities required, as well as for costs of inspections, investigations and protective installations.

8.4 ACCESS TO PREMISES

The Company, or its authorized agents, shall have access at all reasonable times to the property or premises in or on which gas is used to determine if the gas is being carried, distributed and burned in a proper and safe manner and in accordance with these Rules and Regulations, or to read, inspect and test the meter or house lines and other appliances, equipment or facilities. Refusal on the part of the Customer to allow access to ~~his~~the Customer's premises shall constitute sufficient cause for turning off the gas supply to such premises. (See Section 14.1).

8.5 RELOCATION OR ALTERATION OF COMPANY-OWNED FACILITIES

Any relocation or alteration of Company-owned facilities to furnish gas service to Customers for the convenience and benefit of the Company shall be paid for by the Company; however, any such changes occasioned or necessitated by any action of the Customer, or owner of the property if the Customer is a lessee, may be made only after prior approval of the Company, and shall be at the expense of the Customer or owner.

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RULES AND REGULATIONS

SECTION IX - SERVICE CONTINUITY

9.1 REGULARITY OF SUPPLY

The Company will use reasonable diligence to provide a continuous, regular and uninterrupted supply of gas service; but does not and cannot guarantee a constant supply and should the supply be interrupted by the Company for the reasons set forth in Section II, entitled "Curtailment" or for the purpose of making repairs, changes, or improvements, in any part of its system for the general good of the service or the safety of the public, or should the supply of service be interrupted, or fail, by reason of accident, strike, legal process, State or Municipal interference, lack of sufficient gas supply, mechanical failure, or any cause whatsoever, beyond its control, the Company shall not be liable for damages, direct or consequential, resulting from such interruption or failure.

9.2 NOTICE OF TROUBLE

The Customer shall notify the Company, immediately, should the service be unsatisfactory for any reason, or should there be any defects, leaks, trouble, or accident, affecting or resulting from the supply of gas.

9.3 PREARRANGED INTERRUPTION OF SERVICE

Whenever it is necessary to interrupt service for work on mains or other equipment, such work shall be done, as far as practicable, at a time that will cause the least inconvenience to the Customer. The Customer(s) to be affected by such interruption shall, if practicable, be notified in advance.

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RULES AND REGULATIONS

SECTION X - CUSTOMER'S USE OF SERVICE

10.1 PRECAUTIONS TO BE TAKEN BY CUSTOMER

The responsibility of detection of defects and leaks on the Customer's premises is upon the Customer; defects among other things, shall mean failure or deficiency of gas, irregular supply, leakage and excessive pressure. In case of detection of a leak within ~~his~~the Customer's premises, the Customer should

- Leave the home or building immediately and go upwind of the suspected leak.
- Immediately call the Company's local emergency telephone number or 911 from a cellular phone outside the home or building, or from a neighboring location, to report the suspected gas leak.
- Not use their home telephone, turn on or off any electrical switches, light a match or do anything that might create a spark or flame.
- Not re-enter the building where the suspected leak is until emergency officials give the okay.

~~immediately extinguish all flames, or fires within the premises, open all doors and windows to permit the escape of gas, avoid the use of any electrical switches, and at once notify the Company by telephone or messenger, so that the conditions existing may receive prompt and proper attention.~~ When gas has been shut off because of a leak in the house lines or fixtures or other hazardous conditions of service, it shall not be turned on again until such leak or other hazardous conditions have been repaired and made safe either by a competent plumber or gas fitter. In the event of failure or deficiency of gas or excessive pressure, the Customer shall notify the Company and be governed by instructions or assistance received from the Company.

10.2 PRUDENT USES OF GAS

A Customer should always make prudent use of gas.

Upon notice by the Customer, the Company will investigate reports of suspected gas leakage and improper functioning of gas appliances.

In the event that gas passes through the meter as a result of the Customer's negligence or malfunctioning of the Customer's piping or appliances, no credit will be issued, unless such use is a result of fault or neglect of agents of the Company.

10.3 SALES OF GAS BY CUSTOMER

The Customer shall not directly or indirectly sell, sublet, assign or otherwise dispose of the gas or any part thereof, unless otherwise specified in the Tariff. Purchase of gas for use by tenants located on the Customer's property, when the cost to the tenant of such gas is included in the normal rental charge for occupancy of the premises, shall not be considered as resale.

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RULES AND REGULATIONS

SECTION X (Continued)

10.4 SERVICE TO CUSTOMER'S APPLIANCES

The Company shall investigate complaints of gas leaks or odors at any time without charge. The Company shall have the right, but shall not be obliged, to inspect any installation before ~~g~~Gas is introduced or at any later time, and reserves the right to reject any piping or appliances not in accordance with the Company's standard requirements, or with any national and local code requirements; but such inspection, or failure to inspect, or to reject, shall not render the Company liable or responsible for any loss or damage, resulting from defects in the Customer's installation, piping or appliances, or from violation of the Company rules, or from accidents which may occur upon the premises of the Customer.

10.5 FLUCTUATIONS

Gas service must not be used in such a manner as to cause unusual fluctuations or disturbances in the Company's supply system, and in the case of a violation of this rule, the Company may discontinue service, or require the Customer to modify ~~his~~their installation and/or equip it with approved controlling devices.

10.6 LIABILITY FOR DAMAGES

The Company shall not be liable for any injury to persons or damage to property arising or occurring in any manner whatsoever from the misuse of gas.

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RULES AND REGULATIONS

SECTION XI - MEASUREMENT

11.1 DEFINITION OF A CUBIC FOOT

a. Low Pressure Sales - Standard delivery to the Customer is at low pressure, and for those meters not having temperature correcting devices which correct to a temperature of sixty (60) degrees Fahrenheit, a cubic foot of gas shall be that amount of gas which occupies a volume of one cubic foot at the time metered and under the conditions existing at the Customer's meter.

b. Other Than Low Pressure Sales As Under (a) Above - When at the discretion of the Company, gas is supplied at higher than standard delivery pressure, measurement may be by a meter equipped with a base pressure corrector and the metering is continuously, automatically, and uniformly corrected from the absolute delivery pressure (14.73 atmospheric pressure) in pounds per square inch, to a pressure base of 14.95 lbs. per square inch, at the temperature existing at the meter. Meters may be equipped with a base pressure and temperature corrector and the metering is continuously, automatically and uniformly corrected from the absolute delivery pressure of 14.73 absolute pressure in pounds per square inch to a pressure base of 14.95 lbs. per square inch, and to a temperature of sixty (60) degrees Fahrenheit.

11.2 MEASUREMENT OF GAS

Except as herein otherwise provided, the measurement of gas service shall be by meters furnished and installed by the Company. The Company will furnish each Customer with a meter of such size and type as the Company may determine will adequately serve the Customer's service requirements, and may from time to time, change or alter the equipment to provide for accurate measurement.

Each meter shall be calibrated to serve gas within the tolerance as specified by the ~~Delaware~~ Public Service Commission of Delaware. Registration shall be in cubic feet or multiples thereof depending on service classification.

If any correction factor is applied to any meter, this factor shall be marked on such meter.

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RULES AND REGULATIONS

SECTION XI MEASUREMENT (Continued)

11.2 MEASUREMENT OF GAS (Continued)

The Company shall install, at the Company's expense, a remote reading device on all Customer's served under the LVH, HLFS or Interruptible Transportation Service Rate Schedules with annual consumption of at least one hundred thousand (100,000) Ccf annually. All remote reading devices shall be owned, installed and maintained by the Company. When requested by a Customer below the annual consumption level above, and approved by the Company, a remote reading device may be installed at a cost payable by the Customer. In all cases the Customer shall, at the Customer's expense, provide and maintain electrical power and telephone service to the remote reading device location.

A periodic verification reading shall be taken on the meter and the remote reading device. The Company shall notify the Customer when the periodic verification is required. The Company shall determine the frequency of such verification based on the technical characteristics of the installed equipment and its in-service performance.

In cases of a measurement dispute related to the remote reading device, the Company's meter may be used as the final determinant in measuring consumption.

11.3 METERS NOT AVAILABLE

In cases where meters are not available due to circumstances beyond the control of the Company, and the necessity for rendering gas service to the Customer is urgent, the Company may, after proper authorization by the Commission and by written agreement with the Customer, commence service and render bills temporarily on the basis of estimated gas consumption.

11.4 METER READING INTERVALS

The Company will endeavor to make its regular meter reading and/or estimated meter reading as nearly as reasonably possible at scheduled monthly intervals.

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RULES AND REGULATIONS

SECTION XI MEASUREMENT (Continued)

11.5 ESTIMATED USAGE

The Company may render estimated bills when (1) no meter is installed, as provided above, or (2) when a meter is installed but the scheduled meter reading cannot be obtained due to the inability of the Company's agent or representative to gain access to the meter location at the time scheduled, or (3) in case any meter or measuring device for any reason fails to register for any period of time the full consumption by a Customer, (See Section XII Meter Tests—~~12~~), or (4) the Company is unable to obtain a meter reading for causes beyond its control.

Estimated readings shall be based upon prior consumption at the particular location for a similar period of time and may be adjusted for current conditions. The Customer shall be obligated to pay the bill based on the estimated consumption as though the same was based on an actual meter reading, and failure to so pay shall subject the Customer and ~~his~~the Customer's service to the penalties herein provided. Bills based on estimated readings shall be subject to adjustment for any unusual circumstances found to have affected the quantity of gas used, or for obvious errors in estimates, which adjustments shall be made not later than the next subsequent bill rendered the Customer, or that period of time when an actual reading can be obtained.

The Company will cooperate with the Customer to schedule meter readings; however, in those instances where the Company's agent or representative is unable to gain access to the Customer's premises, during the regular scheduled working hours, to obtain a meter reading, the number of estimated readings shall be limited to three (3) consecutive months, and the Customer's service thereafter, is subject to discontinuance.

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RULES AND REGULATIONS

SECTION XII - METER TESTS

12.1 METER TESTS

All meters shall be tested periodically by the Company in compliance with the Rules of the Commission and at the Company's expense.

12.2 ACCURACY OF GAS METERS

When any test of a meter by the Company or by the Commission shows such meter to have an average error of more than ~~2~~~~two~~ percent (~~2%~~), and no meter tampering has occurred, the following provisions for the adjustment of bills shall be observed:

Fast Meters

Unless the date of the beginning of inaccuracy shall be known, it shall be assumed that the over-registration existed for a period of ~~three~~ (~~3~~) years or a period equal to one-half (~~1/2~~) of the time since the meter was last tested, whichever is less.

If the meter is found to be over-registering, the Company shall make a refund to the last Customer of record receiving service through the meter for the amount which shall have been charged in excess of that which would have been charged had the meter registered with ~~400~~ ~~one hundred~~ percent (~~100%~~) accuracy, provided the refund exceeds one dollar (~~\$1~~). The refund will be computed upon the assumption that the meter was registering ~~400~~~~one hundred~~ percent (~~100%~~) accurately prior to the beginning of the period of inaccuracy or the period of adjustment defined in the preceding paragraph. The refund shall be for the period that the last Customer received service through the meter, but for not more than the periods referred to in this ~~S~~section ~~12.2~~.

Slow Meters

If the meter is found to under-register, or is slow, the Company may bill the Customer one-half (~~1/2~~) of the unbilled undercharge for a period of twelve (~~12~~) months, unless the meter has been tested within that twelve (~~12~~) month period, in which event the Company may bill the Customer one-half (~~1/2~~) of the unbilled undercharge for the period since the meter was last tested. If the amount of under--registration is less than ~~five dollars~~ (~~\$5~~)~~\$5.00~~, the bill will not be adjusted. Installment payments will be arranged equal to the number of months the account was billed in error in the event additional charges are due the Company, and the installment payments are due and payable in addition to the ~~C~~customer's regular monthly natural gas service bill.

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RULES AND REGULATIONS

SECTION XII (Continued)

12.2 ACCURACY OF GAS METERS (Continued)

Non-Registering Meters

If the meter is found to be not registering, or is stopped, the Company may estimate, and bill the Customer the proper charge for the unregistered service by reference to the Customer's consumption during similar periods. Except in the case of tampering, theft, or unauthorized use, the estimate shall cover a period of not more than six (6) months. Installment payments will be arranged equal to the number of months the account was billed in error in the event additional charges are due the Company, and the installment payments are due and payable in addition to the Ceustomer's regular monthly natural gas service bill.

12.3 REQUEST TESTS

Upon request by a Ceustomer and at no charge the utility Company shall make a test of the accuracy of registration of the meter serving himthat Customer, providing that such tests need not be made more frequently than once in eighteen (18) months.

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RULES AND REGULATIONS

SECTION XIII - PAYMENT TERMS

13.1 INITIAL RATE SCHEDULE ASSIGNMENT

Subsequent to receiving an application for Gas Delivery Service and prior to activating such service, the Company shall estimate the annual usage of the Customer (based upon the connected gas consuming appliances or equipment) for the purpose of the initial assignment of a Rate Schedule. Where selection of the most favorable schedule is difficult to predetermine, the Company shall, at the request of the Customer, assist the Customer in selecting a Rate Schedule. Subsequent to service activation, the Customer shall be given reasonable opportunity to change to another Rate Schedule, but the Company shall not be required to make refunds for any previous billing under any Rate Schedules selected by the Customer prior to the time of receipt of a written notice from the Customer requesting to change to another Rate Schedule.

13.2 ESTABLISHMENT OF CUSTOMER CREDIT

The Company may require a prospective Customer to satisfactorily establish credit before Gas Delivery Service will be initiated. Such establishment of credit shall not relieve the prospective Customer from complying with the Company's provisions herein for prompt payment of bills. Credit will be deemed so established, and no deposit required, if any one of the following criteria is satisfied:

- (a) The Customer has been a Customer of the Company or other similar Delaware utility in the past two (2) years and;
 - (1) paid the final bill when due, and
 - (2) did not on more than two (2) occasions during the last twelve (12) consecutive months have a bill unpaid after a reasonable period of time after the due date, and
 - (3) did not have service discontinued for non-payment, and
 - (4) can provide the Company with a letter from the last utility substantiating a good payment history; or
- (b) The Customer owns or is purchasing the residence for which the gas service is requested; or,
- (c) The Customer can provide a guarantor satisfactory to the Company. This guarantee shall be in writing and must continue in full force and effect for one (1) year from installation date of the service or until Customer's credit is otherwise established, or
- (d) The Non-residential Customer possesses and maintains an Experian Intelliscore of sixty (60) or above, or

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RULES AND REGULATIONS

SECTION XIII (Continued)

13.2 ESTABLISHMENT OF CUSTOMER CREDIT (Continued)

- (e) ~~The~~ Non-residential Customer possesses and maintains at least an investment grade bond/long-term debt rating from either Standard and Poor's or Moody's. Comparable ratings may be considered from other nationally recognized rating organizations acceptable to the Company. In the event a Customer, whose annual gas consumption exceeds one hundred thousand (100,000) Ccf, does not possess a debt rating or the rating is below investment grade, credit may be established, at the sole discretion of the Company, by the Customer's demonstration of adequate financial strength and stability. The Company may evaluate the Customer's creditworthiness by review of at least two (2) years audited financial statements, accompanied by the opinion of an independent certified public accountant or chartered accountants of recognized national or regional standing, and such other known or discovered factors relating to the Customer's creditworthiness.
- (f) ~~The~~ Customers for which credit is established pursuant to this Section 13.2 are subject to periodic review by the Company to assure that no material changes adversely affecting the Customer's creditworthiness have occurred. In the event a material change has occurred, or ~~the~~ Customer has paid its account with a check dishonored by a bank, the Company may request that credit be established by (i) cash deposit, or (ii) irrevocable letter of credit from a bank, or (iii) surety bond.
- (g) Notwithstanding anything stated herein to the contrary, a ~~s~~Security ~~d~~Deposit shall be required if the ~~C~~ustomer has been disconnected by the Company for non-payment within the nine (9) months prior to the ~~C~~ustomer's application for service.

When none of the above conditions are met or service has been discontinued (see Section 14.1-b) the ~~C~~ustomer shall make a deposit with the Company subject to the following:

- (a) Amount of ~~d~~Deposit required may not be more than two-twelfths (2/12) of the estimated charges for the ensuing twelve (12) months, nor less than five dollars (\$5.00). Residential deposits in excess of one hundred dollars (\$100).00 may be made with an initial deposit of one hundred dollars (\$100).00 with the remainder to be paid over the ensuing four (4)-week period.
- (b) Interest on a deposit shall be simple interest at an annual rate equal to the average of the percent yields of the 1-year Treasury constant maturities for September, October, and November of the preceding year. Interest on a deposit shall be 6 per cent per annum, except that no interest will be paid on deposits held less than 90 days. Interest will be paid at the time the deposit is returned. The deposit ceases to draw interest on the date service is terminated, or in the case of good credit, the date the deposit is processed for refund. No interest will be paid on deposits held less than ninety (90) days.

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RULES AND REGULATIONS

SECTION XIII (Continued)

13.2 ESTABLISHMENT OF CUSTOMER CREDIT (Continued)

- (c) Deposits will be refunded to residential ~~C~~customers following payment of twelve ~~(12)~~ consecutive bills without arrears.
- (d) Refund of ~~d~~Deposit upon discontinuance of service will occur promptly and automatically for the deposit and accrued interest less the ~~C~~customer's final outstanding balance. A transfer of service from one premises to another within the service area may not be deemed a discontinuance of service.
- (e) At the option of the Company a deposit plus accrued interest may be refunded in whole or in part, at any time earlier than the times prescribed in this ~~document~~ Tariff.
- (f) Commercial deposits will be returned when, in the Company's judgement, such deposit is no longer required.

13.3 BILLING PERIOD

Rates are stated on a monthly basis and bills are rendered monthly following the supply of service based on meter readings to the nearest one hundred (100) or one thousand (1,000) cubic feet, depending on the applicable Rate Schedule, scheduled at approximate monthly intervals of twenty-eight (28) to thirty-four (34) days.

An initial period of less than ten (10) days is included in the next month's billing. If the period is more than ten (10) days, a bill is rendered at the regular billing date. A final period, consisting of the number of days from the most recent meter reading to turn off, will be billed as one (1) month. The Customer is liable for service taken after notice to terminate their service until the meter is read and gas shut off. The final bill for service is due and payable upon presentation. Credit balances in a final bill that are five dollars (\$5) or more will be refunded to the Ceustomer.

13.4 PAYMENT PERIOD

~~Bills are due upon presentation.~~ The rates are contingent upon prompt payment. The final date for payment will not fall on any Saturday, Sunday or holiday, and will be due within twenty (20) ~~40~~ days of the bill date or date of presentation. Failure to receive the bill will not excuse the Customer from payment obligations, and payments must be made without regard to any counter claims whatsoever.

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RULES AND REGULATIONS

SECTION XIII (Continued)

13.5 BUDGET PLAN

The Budget Plan is designed for the Customers under Rate Schedules RS-1, ERS-1, RS-2, ERS-2, GS, and EGS, with their account in good standing, and at least twelve (12) months of consumption history. Seasonal heating bills are spread over the Budget Plan period (September through May) with equal monthly payments. The Customer's higher monthly bills during the winter heating season are distributed over a nineteen-(9) month period, with any under or over billing for the season appearing on and being due with the June bill.

If a RS-1, ERS-1, RS-2, ERS-2, GS, or EGS Customer elects to use the Budget Plan, the estimated gas-bills for the Budget Plan period will be based upon prior consumption at the particular location for a similar period of time, corrected for current conditions. The estimated total bill for the period is totaled and divided by the respective number of months to produce the approximate budget payment, which will then be rounded off to the nearest dollar \$1.00. Subsequent Aadjustments to the monthly budget payment amount will may be made by the Company to compensate for temperature and/or rate changes during the Budget Plan period if necessary, with the Customer receiving immediate notification of their new Budget Plan payment amount.

~~If a Customer has no past history of gas use, the Company will estimate the gas consumption and the projected billing amount for the budget plan period and divide by the respective number of months to produce the budget payments. The CompanyThe Company shall require the Customer to provide information on the number, type and size of all gas consuming appliances, along with information on the premises size and type to aid the Company in estimating gas consumption. The Company may adjust the budget payment, with the Customer receiving immediate notification of any adjustment.~~

To remain on the Budget Plan, a Customer must pay the current budget payment by the due date each month and pay all balances due as they appear on the bill at the end of the Budget Plan period.

The Company will normally require that the Customer begin the Budget plan in September of each year.

13.6 DISPUTED BILLS

Upon receipt of the Customer's initial complaint prior to due date, the Company will extend to the Customer an additional five (5) days to allow for investigation and review of complaint. During time allotted for investigation and review of the complaint, the Company will not discontinue service or require the Customer to provide a security deposit. The final date when payment is due after settlement of complaint shall be ten (10) days.

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RULES AND REGULATIONS

SECTION XIII (Continued)

13.7 UNAUTHORIZED USE

The use of service obtained from the Company without authority may be terminated by the Company without notice. The use of service without notifying the Company and enabling it to read its meter, will render the user liable for any amount due for service supplied to the premises from the time of the last reading of the meter, immediately preceding ~~user's~~**this** occupancy, as shown by the books of the Company.

13.8 RETURNED PAYMENT~~S~~ **CHARGE**

Payment for ~~s~~**S**ervices provided under this Tariff, Customer deposits, or other Tariff charges which are returned unpaid by the Customer's bank or other financial institution shall result in an additional twenty dollar (\$20) Returned Payment Charge per occurrence and will be charged against the Customer's account. ~~charge included on Sheet No. 46 (Miscellaneous Customer Charges, and will be charged against the customer's account. Failure to pay the full amount of the bill including the Returned Payment Charge may result in a discontinuance of the Customer's service.~~ After the second returned payment the Company reserves the right to notify the ~~C~~**e**ustomer that an alternate payment method ~~(other than a personal check or bank debit)~~ will be required ~~f~~**or** future payments~~s~~**. ~~of the Company's bill statements.~~**

Failure to pay the full amount of the bill including the Returned Payment Charge will result in a discontinuance of the Customer's service. The Company may discontinue service without prior notice if an invalid payment is used to restore service or satisfy a disconnect notice.

13.9 ADJUSTMENTS FOR INCORRECT BILLINGS

Incorrect billings resulting from clerical error or improper service classifications shall be corrected immediately upon discovery and correct billings rendered to the ~~C~~**e**ustomer; however, in no case may additional charges due from the ~~C~~**e**ustomer be collected for more than three (3) years prior to the month of discovery. In the event a ~~C~~**e**ustomer is overcharged, the overbilling will be refunded to the date the error was made, not to exceed five (5) years, such refund shall be paid to the ~~C~~**e**ustomer within sixty (60) days after the error is discovered. Installment payments will be arranged equal to the number of months the account was billed in error in the event additional charges are due the Company, and the installment payments are due and payable in addition to the ~~C~~**e**ustomer's regular monthly natural gas service bill.

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RULES AND REGULATIONS
SECTION XIV - DISCONNECTION BY THE COMPANY

14.1 DISCONNECTION BY THE COMPANY

The Company may discontinue service and remove its property without being liable to the Customer, or to tenants or occupants of the premises served, for any loss, cost, damage or expense occasioned by such refusal, discontinuance or removal, for any of the following reasons:

- (a) Customer's failure to comply with any of the provisions of the contract, or any applicable regulations of the Commission, or any of the Company's applicable rules or practices currently in effect.
- (b) Customer's non-payment of bill at present or former location. A written notice shall set forth the date service will be discontinued, which shall not be less than five (5) days from the date of mailing of such notice.
- (c) Customer's failure to provide a deposit to insure payment of bills, when requested by the Company under the provisions of ~~S~~section 13.2.
- (d) After a reasonable request for access to its meter or meters is refused, or if access thereto is obstructed or hazardous.
- (e) The Customer's failure to maintain ~~his-their~~ equipment in safe condition, in the judgment of the Company.
- (f) The Customer's abuse, fraud, or tampering with the connections, meters or other equipment of the Company.
- (g) The Customer's equipment or use thereof might injuriously affect the equipment of the Company, or the Company's service to other ~~C~~customers.

The notice provided for in this Section shall consist of five (5) days' written notice sent by first class prepaid mail deposited in a United States mailbox and addressed to the Customer at ~~his~~ the Customer's last known mailing address appearing on the records of the Company.

The Company may discontinue service without notice for reasons (e), (f), or (g) above; but, except in emergency situations, in no event shall such termination occur between 12:00 noon on any Friday and 12:00 noon on the succeeding Monday. Should Friday be a legal, state or national holiday, the last preceding business day shall be substituted for Friday. Should Monday be a state or national, legal holiday, the next succeeding business day shall be substituted for Monday. Except in cases of safety or in emergency situations, in no event shall termination occur on a day when the temperature is thirty-two (32) degrees Fahrenheit or below at 8:00 a.m.

Issue Date: **July 25, 2008**

Effective Date: ~~For Service Rendered on and after September 16, 2008~~

Authorization: ~~Order No. 7441 dated September 16, 2008 in PSC Docket No. 352-08~~

RULES AND REGULATIONS

SECTION XIV (Continued)

14.1 DISCONNECTION BY THE COMPANY (Continued)

The Company may discontinue service without prior notice if an invalid check is used to restore service or to satisfy a disconnect notice.

The Company will comply with the Commission rules regarding weather conditions or medical conditions for disconnections. Except in case of emergency situations, in no event shall ~~such~~ termination occur for non-payment if any occupant of any dwelling unit shall be so ill that the termination of such sale or service shall adversely affect ~~his~~their health or recovery, which has been so certified by a signed statement from any duly licensed physician, physician assistant or advanced nurse practitioner, of this State or of a state with similar accreditation and received by an authorized agent of the Company. Signed statements from a licensed physician, physician assistant or advanced nurse practitioner, obtained pursuant to this section are effective for one hundred twenty (120) days. Signed statements may be renewed by means of a new signed statement to prevent termination only if a customer makes a good faith effort to make payments towards the utility service being provided.~~a statement from any duly licensed physician of this State or any accredited Christian Science practitioner and received by any authorized agent of the Company, prior to the due date of the bill. The Company's medical waiver of discontinuance of service shall not extend beyond one hundred twenty (120) days unless the need for such extension is certified by a statement from any duly licensed physician of this State or any accredited Christian Science practitioner and received by an authorized agent of the Company.~~

14.2 SEASONAL RECONNECTION AND RECONNECTION CHARGES

Whenever a residential ~~C~~eustomer's gas is turned off or ~~a~~a Customer's meter ~~is~~is disconnected by the Company at the ~~C~~eustomer's request, and the account placed on inactive status, and such account is reactivated by the same ~~C~~eustomer no less than thirty (30) days and not more than one hundred eighty (180) days from the ~~state date~~state date of the disconnect, a Seasonal Reconnection Charge equal to the monthly Customer Charge in the Customer's applicable Rate Schedule for each month the account was inactive, plus the Reconnection Charge shall be paid. Such payment, along with other satisfactory arrangements for reconnection, shall be made with the Company for reconnection by the end of the next business day. Details of the charges are contained on Sheet No. 46 (Miscellaneous Customer Charges).

Whenever a ~~C~~eustomer's gas shall be turned off or ~~his-such Customer's~~his-such Customer's meter disconnected by reason of non-compliance with these Rules and Regulations or orders of the Public Service Commission of Delaware, a reconnection charge must be paid and other satisfactory arrangements made with the Company prior to 3:00 p.m. of a normal business day before the gas will be turned on again. Details of the charge are contained on Sheet No. 46 (Miscellaneous Customer Charges).

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RULES AND REGULATIONS

SECTION XIV (Continued)

If the Customer desires that the initial gas service connection or gas service reconnection following disconnection by the Company for any reason, be completed on the same day as the request is received by the Company or outside the Company's normal business hours, such After Hours Reconnection may be performed, subject to the availability of Company personnel. The After Hours Connection or Reconnection Charge must be paid. Details of the charges are contained on Sheet No. 46 (Miscellaneous Customer Charges).

Service interruptions may be avoided by paying the overdue amount prior to the past due date of the gas bill, or by paying the overdue amount plus a collection fee to the Company or an authorized agent of the Company. Details of the charge are contained on Sheet No. 46 (Miscellaneous Customer Charges).

14.3 NON-COMPLIANCE BY COMPANY

Failure on part of the Company to enforce any of its rights at any time shall not be deemed a waiver of any of its rights.

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RULES AND REGULATIONS

SECTION XV - TERMINATION OF SERVICE

15.1 TERMINATION BY COMPANY

The Company's obligation to serve a particular premise shall, at the option of the Company cease and terminate (1) in case the property served is vacated or a change of occupancy occurs; (2) in case of an assignment for the benefit of creditors; (3) in case of the illegal use of gas.

15.2 TERMINATION BY CUSTOMER

A Customer who intends to vacate a premises, discontinue the use of Gas, or terminate the liability to pay for gas delivered to the premises, shall give at least five (5) days' notice to the Company prior to the date of service termination. The Company shall take its final read of the terminating ~~C~~customer's meter, within normal business hours, on the date designated by the Customer as the termination date, but shall have no obligation to read the meter before the fifth ~~(5th)~~ day following receipt of the Customer's termination notice. If such notice is not given, the Customer shall be liable for ~~g~~Gas registered by the meter until the meter is read by the Company and the account terminated. Receipt of a notice to discontinue gas service from a Customer with a contract term of service shall not relieve such Customer from any minimum or guaranteed payment under such contract.

15.3 FINAL BILL

The Customer is liable for service taken after notice to terminate ~~their~~**his** service until the meter is read and gas shut off. The final bill for service is due and payable upon presentation. ~~Credit balances on a final bill that are five dollars (\$5) or more will be refunded to the Customer.~~

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RULES AND REGULATIONS

SECTION XVI - APPLICATION OF RATES

16.1 DEFINITION OF THE TERM "CUSTOMER"

For the purpose of applying rate schedules in this ~~natural gas~~ **T**ariff, the term "~~C~~ustomer" is defined as any individual, firm, or organization purchasing natural gas delivery service and gas sales service or transportation and balancing service in any one (1) month at one (1) location for one (1) classification of service through one (1) meter. Each individual ~~C~~ustomer shall be properly accounted for and identified in the Company's billing system through the combination of a Customer Account number and a Service Identification and Extension number. The schedule of rates is based on delivering and billing service to the end user for retail service only and does not permit resale or redistribution, unless otherwise specified in the **T**ariff.

A "month" does not refer to a calendar month, but shall mean the period between any two scheduled consecutive readings of the meters by the Company.

In those cases where, at the Company's election, two (2) or more meters are installed at a single metering location on the same premises for the same ~~C~~ustomer for the same class of service, the amount of gas supplied through all such meters will be combined in arriving at the total charge, and the customer charge will be the same as though one (1) meter was installed.

Where a single commercial, industrial, or institutional ~~C~~ustomer occupies more than one (1) unit of space in the conduct of the same business, each separate unit will be metered separately and considered a distinct ~~C~~ustomer, unless the ~~C~~ustomer makes the necessary provisions to permit metering of all gas used for each class of service in the various units at a single metering location. This rule shall apply only where the units are located on contiguous property with no intervening public property or private property controlled by others. Only one (1) service connection will be provided for each class of service furnished, and the metering location shall be as close as possible to the point of service entrance.

Issue Date: **~~September 2, 2008~~**

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RATE SCHEDULE "RS - 1"

RESIDENTIAL SERVICE - 1

AVAILABILITY

This ~~R~~^rate ~~S~~^schedule is available to any individually metered ~~C~~^eustomer using gas in a residential dwelling or unit for space heating, cooking, water heating, or other domestic purpose with an annual consumption of two hundred forty (240) Ccf or less. The Company will annually review those ~~C~~^eustomers receiving service under this ~~R~~^rate ~~S~~^schedule in order to determine the appropriate firm residential ~~R~~^rate ~~S~~^schedule should their annual consumption warrant such a change. A Customer on RS-1 Service will be moved to Rate Schedule with annual consumption equal to or greater than two hundred sixty-four (264) Ccf. This annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between ~~R~~^rate ~~S~~^schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the ~~C~~^eustomer's location apply to all ~~C~~^eustomers served under this ~~R~~^rate ~~S~~^schedule.

| | |
|------------------|---|
| Customer Charge: | \$15.00 ^{10.50} per month |
| First 20 Ccf | \$0.85 ^{20.607} per Ccf |
| Next 30 Ccf | \$0.52 ^{50.280} per Ccf |
| Over 50 Ccf | \$0.41 ^{50.170} per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, ~~C~~^eustomers served under this ~~R~~^rate ~~S~~^schedule are subject to the gas cost rate applicable to Rate Schedule "RS-1" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within ~~twenty~~^{ten} (~~20~~¹⁰) days of their date.

MINIMUM BILL

The minimum monthly bill under this ~~R~~^rate ~~S~~^schedule is the ~~C~~^eustomer charge.

Issue Date: **September 2, 2008**

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Authorization: **Order No. 7434 dated September 2, 2008 in PSG Docket No. 07-186**

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this ~~R~~rate ~~S~~schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the ~~C~~ustomer in one (1) location only and is not to be shared or sold to others.
- (3) In addition to the above Delivery Service rates, ~~C~~customers served under this ~~R~~rate ~~S~~schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

REVENUE NORMALIZATION ADJUSTMENT ("RNA"):

The Delivery Service Revenue for Customers under this Rate Schedule is adjusted quarterly via a separate line item on the bill titled "Revenue Normalization Adjustment." The RNA is calculated to reflect a targeted annual average margin per customer for this Rate Schedule as established in PSC Docket No. 15-_____, specifically \$278 per Customer. The RNA is determined under the guidelines approved on Sheet No. 42.5.

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RATE SCHEDULE "RS - 2"

RESIDENTIAL SERVICE – 2

AVAILABILITY

This ~~R~~rate ~~S~~schedule is available to any individually metered ~~C~~ustomer using gas in a residential dwelling or unit for space heating, cooking, water heating, or other domestic purpose with annual consumption of greater than ~~two hundred forty~~ (240) Ccf. The Company will annually review those ~~C~~ustomers receiving service under this ~~R~~rate ~~S~~schedule in order to determine the appropriate firm residential ~~R~~rate ~~S~~schedule should their annual consumption warrant such a change. A Customer on RS-1 Service will be moved to this ~~R~~rate ~~S~~schedule with annual consumption equal to or greater than ~~two hundred sixty-four~~ (264) Ccf. A Customer on this ~~R~~rate ~~S~~schedule will be moved to RS-1 Service with annual consumption less than ~~two hundred sixteen~~ (216) Ccf. This annual review process will be based on the twelve (~~12~~) months ended August. Customers will not be shifted between ~~R~~rate ~~S~~schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the ~~C~~ustomer's location apply to all ~~C~~ustomers served under this ~~R~~rate-~~S~~schedule.

| | |
|------------------|---|
| Customer Charge: | \$17.00 13.00 per month |
| First 20 Ccf | \$0.6560 0.578 per Ccf |
| Next 30 Ccf | \$0.3970 0.319 per Ccf |
| Over 50 Ccf | \$0.2100 0.132 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, ~~C~~ustomers served under this ~~R~~rate ~~S~~schedule are subject to the gas cost rate applicable to Rate Schedule "RS-2" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within ~~twentyten~~ (~~2010~~) days of their date.

MINIMUM BILL

The minimum monthly bill under this ~~R~~rate ~~S~~schedule is the ~~C~~ustomer charge.

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Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this ~~R~~rate ~~S~~schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the ~~C~~ustomer in one (1) location only and is not to be shared or sold to others.
- (3) In addition to the above Delivery Service rates, ~~C~~ustomers served under this ~~R~~rate ~~S~~schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

REVENUE NORMALIZATION ADJUSTMENT ("RNA"):

The Delivery Service revenue for Customers under this Rate Schedule is adjusted quarterly via a separate line item on the bill titled "Revenue Normalization Adjustment." The RNA is calculated to reflect a targeted annual average margin per customer for this Rate Schedule as established in PSC Docket No. 15-_____, specifically \$453 per Customer. The RNA is determined under the guidelines approved on Sheet No. 42.5.

Issue Date: **September 2, 2008**

Effective Date: **For Bills Rendered on and after September 3, 2008**

Authorization: **Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186**

RATE SCHEDULE "ERS-1"

EXPANSION AREA RESIDENTIAL SERVICE – 1

AVAILABILITY

This Rate Schedule is available to any individually metered Customer within the southeastern Sussex County, Delaware, expansion area using gas in a residential dwelling or unit for space heating, cooking, water heating, or other domestic purpose with an annual consumption of two hundred forty (240) Ccf or less. The southeastern Sussex County, Delaware, expansion area is defined as the area east of Chesapeake's district regulator station located on Route 9 in Lewes, Delaware, that is connected to Chesapeake's distribution main and any area that is connected to Chesapeake's distribution main behind the three (3) Eastern Shore Natural Gas transmission pipeline City Gates located in Dagsboro, Frankford, and Selbyville, Delaware. The Company will annually review those Customers receiving service under this Rate Schedule in order to determine the appropriate firm residential Rate Schedule should their annual consumption warrant such a change. A Customer on ERS-1 Service will be moved to Rate Schedule ERS-2 with annual consumption equal to or greater than two hundred sixty-four (264) Ccf. This annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between Rate Sschedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the Customer's location apply to all Customers served under this Rate Schedule.

| | |
|------------------|---|
| Customer Charge: | \$16.50 per month |
| First 20 Ccf | \$0.85 <u>20.607</u> per Ccf |
| Next 30 Ccf | \$0.52 <u>50.280</u> per Ccf |
| Over 50 Ccf | \$0.41 <u>50.170</u> per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, Customers served under this Rate Schedule are subject to the gas cost rate applicable to Rate Schedule "ERS" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within twentyten (~~2010~~) days of their date.

RATE SCHEDULE "ERS-1"

**EXPANSION AREA RESIDENTIAL SERVICE – 1
(Continued)**

MINIMUM BILL

The minimum monthly bill under this ~~R~~rate ~~S~~schedule is the ~~C~~ustomer charge.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this ~~R~~rate ~~S~~schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the ~~C~~ustomer in one (1) location only and is not to be shared or sold to others.
- (3) In addition to the above Delivery Service rates, ~~C~~ustomers served under this ~~R~~rate ~~S~~schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

REVENUE NORMALIZATION ADJUSTMENT ("RNA"):

The Delivery Service revenue for Customers under this Rate Schedule is adjusted quarterly via a separate line item on the bill titled "Revenue Normalization Adjustment." The RNA is calculated to reflect a targeted annual average margin per customer for this Rate Schedule as established in PSC Docket No. 15-____, specifically \$335 per Customer. The RNA is determined under the guidelines approved on Sheet No. 42.5.

Issue Date: **November 5, 2013**

Effective Date: **~~For Bills Rendered on and after December 1, 2013~~**

Authorization: **~~Order No. 8479 in PSC Docket No. 12-292 dated November 5, 2013~~**

RATE SCHEDULE "ERS-2"

EXPANSION AREA RESIDENTIAL SERVICE – 2

AVAILABILITY

This ~~R~~rate ~~S~~schedule is available to any individually metered ~~C~~ustomer within the southeastern Sussex County, Delaware, expansion area using gas in a residential dwelling or unit for space heating, cooking, water heating, or other domestic purpose with annual consumption of greater than ~~two hundred forty~~ (240) Ccf. The southeastern Sussex County, Delaware, expansion area is defined as the area east of Chesapeake's district regulator station located on Route 9 in Lewes, Delaware, that is connected to Chesapeake's distribution main and any area that is connected to Chesapeake's distribution main behind the three ~~(3)~~ Eastern Shore Natural Gas transmission pipeline City Gates located in Dagsboro, Frankford, and Selbyville, Delaware. The Company will annually review those ~~C~~ustomers receiving service under this ~~R~~rate ~~S~~schedule in order to determine the appropriate firm residential ~~R~~rate ~~S~~schedule should their annual consumptions warrant such a change. A Customer on ERS-1 Service will be moved to this ~~R~~rate ~~S~~schedule with annual consumption equal to or greater than ~~two hundred sixty-four~~ (264) Ccf. A Customer on this ~~R~~rate ~~S~~schedule will be moved to ERS-1 Service with annual consumption less than ~~two hundred sixteen~~ (216) Ccf. This annual review process will be based on the twelve ~~(12)~~ months ended August. Customers will not be shifted between ~~R~~rate ~~S~~schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the ~~C~~ustomer's location apply to all ~~C~~ustomers served under this ~~R~~rate ~~S~~schedule.

| | |
|------------------|---------------------------------|
| Customer Charge: | \$31.75 per month |
| First 20 Ccf | \$0.6560.578 per Ccf |
| Next 30 Ccf | \$0.3970.319 per Ccf |
| Over 50 Ccf | \$0.2100.132 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, ~~C~~ustomers served under this ~~R~~rate ~~S~~schedule are subject to the gas cost rate applicable to Rate Schedule "~~E~~RS" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within ~~twentyten~~ (~~2010~~) days of their date.

Issue Date: ~~November 5, 2013~~

Effective Date: ~~For Bills Rendered on and after December 1, 2013~~

Authorization: ~~Order No. 8479 in PSC Docket No. 12-292 dated November 5, 2013~~

RATE SCHEDULE ~~"ERS-2"~~

EXPANSION AREA `RESIDENTIAL SERVICE – 2
(Continued)

MINIMUM BILL

The minimum monthly bill under this ~~R~~rate ~~S~~schedule is the ~~C~~ustomer charge.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this ~~R~~rate ~~S~~schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the ~~"Availability"~~ clause above.
- (2) Natural gas purchased hereunder is for the use of the ~~C~~ustomer in one ~~(1)~~ location only and is not to be shared or sold to others.
- (3) In addition to the above Delivery Service rates, ~~C~~ustomers served under this ~~R~~rate ~~S~~schedule may be subject to one ~~(1)~~ or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

REVENUE NORMALIZATION ADJUSTMENT ("RNA"):

The Delivery Service revenue for Customers under this Rate Schedule is adjusted quarterly via a separate line item on the bill titled "Revenue Normalization Adjustment." The RNA is calculated to reflect a targeted annual average margin per customer for this Rate Schedule as established in PSC Docket No. 15-____, specifically \$620 per Customer. The RNA is determined under the guidelines approved on Sheet No. 42.5.

Issue Date: **November 5, 2013**

Effective Date: **For Bills Rendered on and after December 1, 2013**

Authorization: **Order No. 8479 in PSC Docket No. 12-292 dated November 5, 2013**

RATE SCHEDULE "~~GS~~"
GENERAL SERVICE

AVAILABILITY

This ~~R~~ate ~~S~~chedule is available to any ~~C~~ustomer using gas for commercial and/or industrial purposes with an annual consumption of less than four thousand (4,000) Ccf. The Company will annually review those ~~C~~ustomers receiving service under this ~~R~~ate ~~S~~chedule in order to determine the appropriate firm commercial and/or industrial ~~R~~ate ~~S~~chedule should their annual consumption warrant such a change. A Customer on General Service will be moved to Rate Schedule MVS with annual consumption equal to or greater than four thousand four hundred (4,400) Ccf. This annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between ~~R~~ate ~~S~~schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the ~~C~~ustomer's location apply to all ~~C~~ustomers served under this ~~R~~ate ~~S~~chedule.

| | |
|------------------|---|
| Customer Charge: | \$34.00 ^{26.00} per month |
| First 20 Ccf | \$0.50 ^{60.447} per Ccf |
| Next 30 Ccf | \$0.33 ^{70.278} per Ccf |
| Over 50 Ccf | \$0.19 ^{90.440} per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, ~~C~~ustomers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "GS" provided on Sheet No. 42.

TRANSPORTATION AND BALANCING RIDER

Transportation service is available to commercial and industrial ~~C~~ustomers on this Rate Schedule with annual consumption through one or more contiguous meters in a specific geographic location equal to, or greater than, 30,000 Ccf per year that choose to have their own gas transported through the Company's distribution system. Customers purchasing natural gas from a supplier, other than the Company, must have the natural gas delivered to the Company's city gate in accordance with who meet the eligibility requirements set forth in the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the ~~C~~ustomer is subject to the following Firm Balancing Service Rate applied to all gas consumption.

| | |
|-------------------------------------|--|
| Firm Balancing Service Rate: | \$0.081 per Ccf of gas consumed |
|-------------------------------------|--|

Issue Date: ~~September 1, 2015~~

Effective Date: ~~For Service Rendered on and after November 1, 2015 – Temporary Basis~~

Authorization: ~~Order No. 8792 in PSC Docket No. 15-1362 dated September 22, 2015~~

RATE SCHEDULE "GS"

GENERAL SERVICE (Continued)

PUBLIC UTILITIES TAX

The Delivery Service, Gas Sales Service, Firm Balancing Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the Customer is exempt from such tax.

PAYMENT TERMS

Bills are due within ~~twentyten~~ (2010) days of their date.

MINIMUM BILL

The minimum monthly bill under this Rate Schedule is the Customer charge.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the Customer in one (1) location only and is not to be shared or sold to others except for retail sale as a fuel to natural gas vehicles and except for sale or transportation of compressed natural gas ("CNG") to third parties.
- (3) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service, as authorized under the Company's Tariff, may be required to pay a transition charge in the future to prevent the remaining firm Gas Sales Service Customers from having to absorb stranded fixed gas supply costs which would otherwise be collected from the firm Gas Sales Service Customers switching to Transportation and Balancing Service.
- (4) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service or to Interruptible Sales Service, as authorized under the Company's Tariff, will be billed for or receive credit for any under or over collection of gas costs from prior periods.
- (5) In addition to the above Delivery Service rates, Customers served under this Rate Schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

Issue Date: **July 21, 2015**

Effective Date: ~~For Bills Rendered on and after September 1, 2015~~

Authorization: ~~Order 8752 in PSC Docket No. 13-383 dated July 21, 2015~~

RATE SCHEDULE "~~E~~GS"

~~EXPANSION AREA~~ GENERAL SERVICE

(Continued)

REVENUE NORMALIZATION ADJUSTMENT ("RNA"):

The Delivery Service revenue for Customers under this Rate Schedule is adjusted quarterly via a separate line item on the bill titled "Revenue Normalization Adjustment." The RNA is calculated to reflect a targeted annual average margin per customer for this Rate Schedule as established in PSC Docket No. 15-____, specifically \$663 per Customer. The RNA is determined under the guidelines approved on Sheet No. 42.5.

Issue Date: ~~July 21, 2015~~

Effective Date: ~~For Bills Rendered on and after September 1, 2015~~

Authorization: ~~Order 8752 in PSC Docket No. 13-383 dated July 21, 2015~~

RATE SCHEDULE "EGS"

EXPANSION AREA GENERAL SERVICE

~~(Continued)~~

AVAILABILITY

This ~~R~~ate ~~S~~chedule is available to any ~~C~~ustomer within the southeastern Sussex County, Delaware, expansion area using gas for commercial and/or industrial purposes with an annual consumption of less than ~~four thousand~~ (4,000) Ccf. The southeastern Sussex County, Delaware, expansion area is defined as the area east of Chesapeake's district regulator station located on Route 9 in Lewes, Delaware, that is connected to Chesapeake's distribution main and any area that is connected to Chesapeake's distribution main behind the three (3) Eastern Shore Natural Gas transmission pipeline City Gates located in Dagsboro, Frankford, and Selbyville, Delaware. The Company will annually review those ~~C~~ustomers receiving service under this ~~R~~ate ~~S~~chedule in order to determine the appropriate firm commercial and/or industrial rate schedule should their annual consumption warrant such a change. A Customer on Rate Schedule EGS will be moved to Rate Schedule EMVS with annual consumption equal to or greater than four thousand four hundred (4,400) Ccf This annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between ~~R~~ate ~~S~~schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the ~~C~~ustomer's location apply to all ~~C~~ustomers served under this ~~R~~ate ~~S~~chedule.

| | |
|------------------|--|
| Customer Charge: | \$56.00 per month |
| First 20 Ccf | \$0.5060 447 per Ccf |
| Next 30 Ccf | \$0.3370 278 per Ccf |
| Over 50 Ccf | \$0.1990 140 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, ~~C~~ustomers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "~~E~~GS" provided on Sheet No. 42.

~~TRANSPORTATION AND BALANCING RIDER~~

~~Transportation service is available to commercial and industrial customers with annual consumption through one or more contiguous meters in a specific geographic location equal to, or greater than, 30,000 Ccf per year that choose to have their own gas transported through the Company's distribution system. Customers purchasing natural gas from a supplier, other than the Company, must have the natural gas delivered to the Company's city gate in accordance with the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the customer is subject to the following Firm Balancing Service Rate applied to~~

~~all gas consumption~~

~~Firm Balancing Service Rate: \$0.081 per Ccf of gas consumed~~

~~PUBLIC UTILITIES TAX~~

~~The Delivery Service, Gas Sales Service, Firm Balancing Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the customer is exempt from such tax.~~

~~PAYMENT TERMS~~

~~Bills are due within ten (10) days of their date.~~

~~MINIMUM BILL~~

~~The minimum monthly bill under this rate schedule is the customer charge.~~

~~SPECIAL TERMS AND CONDITIONS OF SERVICE~~

~~(1) Service under this rate schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.~~

~~(2)(1) Natural gas purchased hereunder is for the use of the customer in one location only and is not to be shared or sold to others except for retail sale as a fuel to natural gas vehicles.~~

Issue Date: September 1, 2015

Effective Date: For Service Rendered on and after November 1, 2015 — Temporary Basis

Authorization: Order No. 8792 in PSC Docket No. 15-1362 dated September 22, 2015

RATE SCHEDULE "EGS"

EXPANSION AREA GENERAL SERVICE (Continued)

TRANSPORTATION AND BALANCING RIDER

~~Transportation service is available to commercial and industrial Ccustomers on this Rate Schedule with annual consumption through one or more contiguous meters in a specific geographic location equal to, or greater than, 30,000 Ccf per year that choose to have their own gas transported through the Company's distribution system. Customers purchasing natural gas from a supplier, other than the Company, must have the natural gas delivered to the Company's city gate in accordance with who meet the eligibility requirements set forth in the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the Ccustomer is subject to the following Firm Balancing Service Rate applied to all gas consumption~~

Firm Balancing Service Rate: \$0.081 per Ccf of gas consumed

PUBLIC UTILITIES TAX

~~The Delivery Service, Gas Sales Service, Firm Balancing Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the Ccustomer is exempt from such tax.~~

PAYMENT TERMS

~~Bills are due within twentyten (2010) days of their date.~~

MINIMUM BILL

~~The minimum monthly bill under this Rrate Sschedule is the Ccustomer charge.~~

SPECIAL TERMS AND CONDITIONS OF SERVICE

- ~~(1) Service under this Rrate Sschedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.~~
- ~~(2) Natural gas purchased hereunder is for the use of the Ccustomer in one (1) location only and is not to be shared or sold to others except for retail sale as a fuel to natural gas vehicles and except for sale or transportation of CNG to third parties.~~

~~SPECIAL TERMS AND CONDITIONS OF SERVICE (Continued)~~

- ~~(3) A firm customer that transfer from Gas Sales Service to Transportation an Balancing Service, as authorized under the Company's tariff, may be required to pay a transition charge in the future to prevent the remaining firm Gas Sales Service customers from having to absorb stranded fixed~~

~~gas supply costs which would otherwise be collected from the firm Gas Sales Service customers switching to Transportation and Balancing Service.~~

~~(4)(3) A firm customer that transfers from Gas Sales Service to Transportation and Balancing Service or to Interruptible Sales Service, as authorized under the Company's tariff, will be billed for or receive credit for any under or over collection of gas costs from prior periods.~~

~~(5)(3) In addition to the above Delivery Service rates, customers served under this rate schedule may be subject to one or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.~~

Issue Date: July 21, 2015

Effective Date: ~~For Bills Rendered on and after September 1, 2015~~

Authorization: ~~Order 8752 in PSC Docket No. 13-383 dated July 21, 2015~~

RATE SCHEDULE "EGS"

EXPANSION AREA GENERAL SERVICE
(Continued)

SPECIAL TERMS AND CONDITIONS OF SERVICE (Continued)

- (3) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service, as authorized under the Company's Tariff, may be required to pay a transition charge in the future to prevent the remaining firm Gas Sales Service Customers from having to absorb stranded fixed gas supply costs which would otherwise be collected from the firm Gas Sales Service Customers switching to Transportation and Balancing Service.
- (4) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service or to Interruptible Sales Service, as authorized under the Company's Tariff, will be billed for or receive credit for any under or over collection of gas costs from prior periods.
- (5) In addition to the above Delivery Service rates, Customers served under this Rate Schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

REVENUE NORMALIZATION ADJUSTMENT ("RNA"):

The Delivery Service revenue for Customers under this Rate Schedule is adjusted quarterly via a separate line item on the bill titled "Revenue Normalization Adjustment." The RNA is calculated to reflect a targeted annual average margin per customer for this Rate Schedule as established in PSC Docket No. 15-____, specifically \$897 per Customer. The RNA is determined under the guidelines approved on Sheet No. 42.5.

Issue Date:

Effective Date:

Authorization:

**RATE SCHEDULE "MVS"
MEDIUM VOLUME SERVICE**

AVAILABILITY

This ~~R~~^rate ~~S~~^schedule is available to any ~~C~~^customer using gas for commercial and/or industrial purposes with an annual consumption generally equal to or greater than four thousand (4,000) Ccf and less than fifteen thousand (15,000) Ccf. The Company will annually review those Customers receiving service under this ~~R~~^rate ~~S~~^schedule in order to determine the appropriate firm commercial and/or industrial ~~R~~^rate ~~S~~^schedule should their annual consumption warrant such a change. A Customer on General Service will be moved to this ~~R~~^rate ~~S~~^schedule with annual consumption equal to or greater than four thousand four hundred (4,400) Ccf. A Customer on this ~~R~~^rate ~~S~~^schedule will be moved to General Service with annual consumption less than three thousand six hundred (3,600) Ccf. The annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between ~~R~~^rate ~~S~~^schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the ~~C~~^customer's location apply to all ~~C~~^customers served under this ~~R~~^rate ~~S~~^schedule.

| | |
|------------------|---|
| Customer Charge: | \$80.00 ^{\$65.00} per month |
| First 200 Ccf | \$0.237 ^{\$0.227} per Ccf |
| Over 200 Ccf | \$0.125 ^{\$0.115} per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, ~~C~~^customers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "MVS" provided on Sheet No. 42.

TRANSPORTATION AND BALANCING RIDER

Transportation service is available to commercial and industrial ~~C~~^customers on this Rate with annual consumption through one or more contiguous meters in a specific geographic location equal to, or greater than, 30,000 Ccf per year that choose to have their own gas transported through the Company's distribution system. Customers purchasing natural gas from a supplier, other than the Company, must have the natural gas delivered to the Company's city gate in accordance with who meet the eligibility requirements set forth in the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the customer is subject to the following Firm Balancing Service Rate applied to all gas consumption

| | |
|-------------------------------------|---------------------------------|
| Firm Balancing Service Rate: | \$0.091 per Ccf of gas consumed |
|-------------------------------------|---------------------------------|

Issue Date: ~~September 1, 2015~~

Effective Date: ~~For Service Rendered on and after November 1, 2015 – Temporary Basis~~

Authorization: ~~Order No. 8792 in PSC Docket No. 15-1362 dated September 22, 2015~~

RATE SCHEDULE "MVS"

MEDIUM VOLUME SERVICE

PUBLIC UTILITIES TAX

The Delivery Service, Gas Sales Service, Firm Balancing Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the Customer is exempt from such tax.

PAYMENT TERMS

Bills are due within ~~twentyten~~ (~~2010~~) days of their date.

MINIMUM BILL

The minimum monthly bill under this Rate Schedule is the Customer charge.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the Customer in one (1) location only and is not to be shared or sold to others except for retail sale as a fuel to natural gas vehicles and except for sale or transportation of CNG to third parties.
- (3) A firm Customer that transfers s from Gas Sales Service to Transportation and d Balancing Service, as authorized under the Company's Itariff, may be required to pay a transition charge in the future to prevent the remaining firm Gas Sales Service Customers from having to absorb stranded fixed gas supply costs which would otherwise be collected from the firm Gas Sales Service Customers switching to Transportation and Balancing Service.
- (4) A firm Customer that transfers from Gas Sales Service to Transportation and Balancing Service or Interruptible Sales Service, as authorized under the Company's Itariff, will be billed for or receive credit for any under or over collection of gas costs from prior periods.
- (5) In addition to the above Delivery Service rates, Customers served under this Rate Schedule may be subject to one (1) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

Issue Date: **July 21, 2015**

Effective Date: ~~For Bills Rendered on and after September 1, 2015~~

Authorization: ~~Order 8752 in PSC Docket No. 13-383 dated July 21, 2015~~

RATE SCHEDULE "EMVS"

EXPANSION AREA MEDIUM VOLUME SERVICE

AVAILABILITY

This ~~R~~rate ~~S~~schedule is available to any ~~C~~ustomer within the southeastern Sussex County, Delaware, expansion area using gas for commercial and/or industrial purposes with an annual consumption generally equal to or greater than four thousand (4,000) Ccf and less than fifteen thousand (15,000) Ccf. The southeastern Sussex County, Delaware, expansion area is defined as the area east of Chesapeake's district regulator station located on Route 9 in Lewes, Delaware, that is connected to Chesapeake's distribution main and any area that is connected to Chesapeake's distribution main behind the three (3) Eastern Shore Natural Gas transmission pipeline City Gates located in Dagsboro, Frankford, and Selbyville, Delaware. The Company will annually review those Customers receiving service under this ~~R~~rate ~~S~~schedule in order to determine the appropriate firm commercial and/or industrial ~~R~~rate ~~S~~schedule should their annual consumption warrant such a change. A Customer on Rate Schedule EGS will be moved to this ~~R~~rate ~~S~~schedule with annual consumption equal to or greater than four thousand four hundred (4,400) Ccf. A Customer on this ~~R~~rate ~~S~~schedule will be moved to ~~R~~rate ~~S~~schedule EGS with annual consumption less than three thousand six hundred (3,600) Ccf. The annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between ~~R~~rate ~~S~~schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the ~~C~~ustomer's location apply to all ~~C~~ustomers served under this ~~R~~rate ~~S~~schedule.

| | |
|------------------|--|
| Customer Charge: | \$158.75 per month |
| First 200 Ccf | \$0.2370 0.227 per Ccf |
| Over 200 Ccf | \$0.1250 0.115 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, ~~C~~ustomers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "~~E~~MV~~S~~" provided on Sheet No. 42.

Issue Date: **July 21, 2015**

Effective Date: ~~For Bills Rendered on and after September 1, 2015~~

Authorization: ~~Order 8752 in PSC Docket No. 13-383 dated July 21, 2015~~

RATE SCHEDULE "EMVS"

EXPANSION AREA MEDIUM VOLUME SERVICE (Continued)

TRANSPORTATION AND BALANCING RIDER

Transportation service is available to commercial and industrial ~~C~~eustomers on this Rate with annual consumption through one or more contiguous meters in a specific geographic location equal to, or greater than, 30,000 Ccf per year that choose to have their own gas transported through the Company's distribution system. Customers purchasing natural gas from a supplier, other than the Company, must have the natural gas delivered to the Company's city gate in accordance with who meet the eligibility requirements set forth in the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the ~~C~~eustomer is subject to the following Firm Balancing Service Rate applied to all gas consumption

Firm Balancing Service Rate: \$0.091 per Ccf of gas consumed

PUBLIC UTILITIES TAX

The Delivery Service, Gas Sales Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the ~~C~~eustomer is exempt from such tax.

PAYMENT TERMS

Bills are due within ~~twentyten~~ (2010) days of their date.

MINIMUM BILL

The minimum monthly bill under this ~~R~~rate ~~S~~schedule is the ~~C~~eustomer charge.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this ~~R~~rate ~~S~~schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the ~~C~~eustomer in one (1) location only and is not to be shared or sold to others except for retail sale as a fuel to natural gas vehicles and except for sale or transportation of CNG to third parties.

Issue Date: ~~September 1, 2015~~

Effective Date: ~~For Service Rendered on and after November 1, 2015 — Temporary Basis~~

Authorization: ~~Order No. 8792 in PSC Docket No. 15-1362 dated September 22, 2015~~

RATE SCHEDULE "EMVS"

EXPANSION AREA MEDIUM VOLUME SERVICE
(Continued)

SPECIAL TERMS AND CONDITIONS OF SERVICE (Continued)

- (3) A firm ~~C~~eustomer that transfers~~s~~ from Gas Sales Service to Transportation and~~d~~ Balancing Service, as authorized under the Company's ~~T~~ariff, may be required to pay a transition charge in the future to prevent the remaining firm Gas Sales Service ~~C~~eustomers from having to absorb stranded fixed gas supply costs which would otherwise be collected from the firm Gas Sales Service ~~C~~eustomers switching to Transportation and Balancing Service.
- (4) A firm ~~C~~eustomer that transfers from Gas Sales Service to Transportation and Balancing Service or Interruptible Sales Service, as authorized under the Company's ~~T~~ariff, will be billed for or receive credit for any under or over collection of gas costs from prior periods.
- (5) In addition to the above Delivery Service rates, ~~C~~eustomers served under this ~~R~~ate ~~S~~chedule may be subject to one ~~(1)~~ or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

Issue Date: ~~July 21, 2015~~

Effective Date: ~~For Bills Rendered on and after September 1, 2015~~

Authorization: ~~Order 8752 in PSC Docket No. 13-383 dated July 21, 2015~~

RATE SCHEDULE "LVS"

LARGE VOLUME SERVICE

AVAILABILITY

This ~~R~~ate ~~S~~chedule is available to any ~~C~~ustomer using gas for commercial and/or industrial purposes with an annual consumption generally equal to or greater than ~~fifteen thousand~~ (15,000) Ccf. The Company will annually review those ~~C~~ustomers receiving service under this ~~R~~ate ~~S~~chedule in order to determine the appropriate firm commercial and/or industrial ~~R~~ate ~~S~~chedule should their annual consumption warrant such a change. A Customer on Medium Volume Service will be moved to this ~~R~~ate ~~S~~chedule with annual consumption equal to or greater than ~~sixteen thousand five hundred~~ (16,500) Ccf. A Customer on this ~~R~~ate ~~S~~chedule will be moved to Medium Volume Service with annual consumption less than ~~thirteen thousand five hundred~~ (13,500) Ccf. The annual review process will be based on the twelve (12) months ended August. Customers will not be shifted between ~~R~~ate ~~S~~schedules due to changes in annual consumption other than at the annual review time.

DELIVERY SERVICE RATES

The following rates for delivering gas to the ~~C~~ustomer's location apply to all ~~C~~ustomers served under this ~~R~~ate ~~S~~chedule.

| | |
|------------------|--|
| Customer charge: | \$ 175.00 125.00 per month |
| First 1000 Ccf | \$ 0.2180 0.326 per Ccf |
| Over 1000 Ccf | \$ 0.0880 0.083 per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, ~~C~~ustomers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "LVS" provided on Sheet No. 42.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RATE SCHEDULE "LVS"

LARGE VOLUME SERVICE (Continued)

TRANSPORTATION AND BALANCING SERVICE

Transportation service is available to commercial and industrial ~~C~~customers on this Rate Schedule with annual consumption through one or more contiguous meters in a specific geographic location equal to, or greater than, 30,000 Ccf per year that choose to have their own gas transported through the Company's distribution system. Customers purchasing natural gas from a supplier, other than the Company, must have the natural gas delivered to the Company's city gate in accordance with who meet the eligibility requirements set forth in the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the Customer is subject to the following Firm Balancing Service rate applied to all gas consumption.

Firm Balancing Service Rate: \$0.073 per Ccf of gas consumed

PUBLIC UTILITIES TAX

The Delivery Service, Gas Sales Service, Firm Balancing Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the ~~C~~customer is exempt from such tax.

PAYMENT TERMS

Bills are due within ~~twentyten~~ (~~2010~~) days of their date.

MINIMUM BILL

The minimum monthly bill under this ~~R~~rate ~~S~~schedule is the ~~C~~customer charge.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this ~~R~~rate ~~S~~schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the ~~C~~customer in one ~~(1)~~ location only and is not to be shared or sold to others except for retail sale as a fuel to natural gas vehicles and except for sale or transportation of CNG to third parties.

Issue Date: **September 1, 2015**

Effective Date: ~~For Service Rendered on and after November 1, 2015 — Temporary Basis~~

Authorization: ~~Order No. 8792 in PSC Docket No. 15-1362 dated September 22, 2015~~

RATE SCHEDULE "LVS"

**LARGE VOLUME SERVICE
(Continued)**

SPECIAL TERMS AND CONDITIONS OF SERVICE (Continued)

- (3) A firm ~~C~~ustomer that transfers from Gas Sales Service to Transportation and Balancing Service, as authorized under the Company's ~~T~~ariff, may be required to pay a transition charge in the future to prevent the remaining firm Gas Sales Service ~~C~~ustomers from having to absorb stranded fixed gas supply costs which would otherwise be collected from the firm Gas Sales Service ~~C~~ustomers switching to Transportation and Balancing Service.
- (4) A firm ~~C~~ustomer that transfers from Gas Sales Service to Transportation and Balancing Service or to Interruptible Sales Service, as authorized under the Company's ~~T~~ariff, will be billed for or receive credit for any under or over collection of gas costs from prior periods.
- (5) In addition to the above Delivery Service rates, ~~C~~ustomers served under this ~~R~~ate ~~S~~chedule may be subject to one ~~(1)~~ or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

**RATE SCHEDULE "HLFS"
HIGH LOAD FACTOR SERVICE**

AVAILABILITY

This ~~R~~^rate ~~S~~^schedule is available to any ~~C~~^eustomer using gas for commercial and/or industrial purposes that would otherwise qualify for Medium Volume Service or Large Volume Service and with winter months' consumption, defined as the months of January through March, being less than thirty-five percent (35%) of their annual consumption. In addition, the ~~C~~^eustomer must use natural gas in at least eleven ~~(11)~~⁽¹²⁾ of the twelve ~~(12)~~⁽¹²⁾ months under review and usage must be fairly evenly distributed throughout the review period. The Company will annually review those Customers receiving service under this ~~R~~^rate ~~S~~^schedule in order to determine the appropriate firm commercial and/or industrial ~~R~~^rate ~~S~~^schedule should their annual consumption or winter months consumption warrant such a change. A Customer will remain on this ~~R~~^rate ~~S~~^schedule as long as winter months' consumption is less than thirty-seven percent (37%) of their annual consumption and the Customer qualifies for Medium Volume Service or Large Volume Service. The annual review process will be based on the twelve ~~(12)~~⁽¹²⁾ months ended August. Customers will not be shifted between ~~R~~^rate ~~S~~^sschedules due to changes in annual consumption or winter months' consumption other than after the annual review.

DELIVERY SERVICE RATES

The following rates for delivering gas to the ~~C~~^eustomer's location apply to all ~~C~~^eustomers served under this ~~R~~^rate ~~S~~^schedule.

| | | |
|------------------|--|-----------|
| Customer Charge: | \$125.00 ^{\$75.00} | per month |
| All gas consumed | \$0.08 ^{\$0.087} | per Ccf |

GAS SALES SERVICE

In addition to the above Delivery Service rates, ~~C~~^eustomers purchasing their natural gas supply from the Company are subject to the gas cost rate applicable to Rate Schedule "HLFS" provided on Sheet No. 42.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

**RATE SCHEDULE "HLFS"
HIGH LOAD FACTOR SERVICE
(Continued)**

TRANSPORTATION AND BALANCING SERVICE

Transportation service is available to commercial and industrial Customers on this Rate with annual consumption through one or more contiguous meters in a specific geographic location equal to, or greater than, 30,000 Ccf per year that choose to have their own gas transported through the Company's distribution system. Customers purchasing natural gas from a supplier, other than the Company, must have the natural gas delivered to the Company's city gate in accordance with who meet the eligibility requirements set forth in the Transportation and Balancing General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rates, the Customer is subject to the following Firm Balancing Service rate applied to all gas consumption

Firm Balancing Service Rate: \$0.024 per Ccf of gas consumed

PUBLIC UTILITIES TAX

The Delivery Service, Gas Sales Service, Firm Balancing Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the Customer is exempt from such tax.

PAYMENT TERMS

Bills are due within ~~twentyten~~ (2010) days of their date.

MINIMUM BILL

The minimum monthly bill under this Rate Schedule is the Customer charge.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this Rate Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Natural gas purchased hereunder is for the use of the Customer in one (1) location only and is not to be shared or sold to others except for retail sale as a fuel to natural gas vehicles and except for sale or transportation of CNG to third parties.

Issue Date: ~~September 1, 2015~~

Effective Date: ~~For Service Rendered on and after November 1, 2015 – Temporary Basis~~

Authorization: ~~Order No. 8792 in PSC Docket No. 15-1362 dated September 22, 2015~~

RATE SCHEDULE "HLFS"

HIGH LOAD FACTOR SERVICE
(Continued)

SPECIAL TERMS AND CONDITIONS OF SERVICE (Continued)

- (3) A firm ~~C~~eustomer that transfers from Gas Sales Service to Transportation and Balancing Service, as authorized under the Company's ~~T~~ariff, may be required to pay a transition charge in the future to prevent the remaining firm Gas Sales Service ~~C~~eustomers from having to absorb stranded fixed gas supply costs which would otherwise be collected from the firm Gas Sales Service ~~C~~eustomers switching to Transportation and Balancing Service.
- (4) A firm ~~C~~eustomer that transfers from Gas Sales Service to Transportation and Balancing Service or to Interruptible Sales Service, as authorized under the Company's ~~T~~ariff, will be billed for or receive credit for any under or over collection of gas costs from prior periods.
- (5) In addition to the above Delivery Service rates, ~~C~~eustomers served under this ~~R~~ate ~~S~~chedule may be subject to one ~~(1)~~ or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RATE SCHEDULE "NGV"

NATURAL GAS VEHICLE

SERVICE AVAILABILITY

This ~~R~~ate ~~S~~chedule is available to any ~~C~~ustomer operating a motor vehicle that is capable of using compressed natural gas ("CNG") as a fuel if the equipment installed on the vehicle meets industry recognized standards and if the operator is authorized by the Company to fuel a motor vehicle with the CNG as the result of completing the Company's training program or a program determined by the Company, in its sole discretion, to be an equivalent training program.

This gas service will be available at Chesapeake Utilities Corporation, 350 South Queen Street, Dover, Delaware 19904. Service hereunder is subject to availability of the Company's gas supply, adequate distribution system capabilities and other resources available to and as determined by the Company.

This gas service is subject to interruption, at the Company's option, at any time during the year without notice and for an indefinite period of time. The Company has no obligation whatsoever to make CNG available to any ~~C~~ustomer and may interrupt service at any time without notice.

TERM

Service under this contract will terminate, with ninety (90) days' notice, at the discretion of the Company or the Commission. This notice shall be given by registered letter.

COMMODITY CHARGE (Posted Price)

The price per Ccf of CNG will be posted at the CNG Station on the first (1st) day of each month and will be set at the average price for CNG for the central Atlantic region as published by the U.S. Department of Energy in its most recent Clean Cities Alternative Fuel Price Report or its successor publication, plus any applicable tax imposed by any governmental entity on natural gas sales or CNG sales.

The price charged to any ~~C~~ustomer will be reduced from the posted price to the extent the posted price includes a tax or taxes imposed by any governmental entity on natural gas sales or CNG sales and the ~~C~~ustomer is exempt from such tax or taxes.

If the ~~C~~ustomer is exempt from federal or state taxes imposed with respect to sales of CNG for motor vehicle use, the price charged to the ~~C~~ustomer will be reduced from the posted price by the tax or taxes on CNG from which the ~~C~~ustomer is exempt.

In no event will CNG be sold if the price as determined above is below the price level established for Company-Use Gas.

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Issue Date: September 2, 2008

Effective Date: For Bills Rendered on and after September 3, 2008

Authorization: Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186

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RATE SCHEDULE "GLR"

GAS LIGHTING SERVICE

AVAILABILITY

This ~~R~~rate ~~S~~schedule is available for unmetered residential outdoor gas lights as herein specified where the Company's existing distribution mains and services are suitable to supply such service.

DELIVERY SERVICE RATE

The following rate for delivering gas to the ~~C~~ustomer's location applies to all ~~C~~ustomers served under this ~~R~~rate ~~S~~schedule.

Each 2 cu. ft./hr. or less \$~~16.72~~~~11.75~~ per month.

GAS SALES SERVICE

In addition to the above Delivery Service rates, ~~C~~ustomers served under this ~~R~~rate ~~S~~schedule are subject to the gas cost rate applicable to Rate Schedule "GLR" provided on Sheet No. 42.

PAYMENT TERMS

Bills are due within ~~twentyten~~ (~~2010~~) days of their date.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this ~~R~~rate ~~S~~schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) The Customer shall install and own the lighting devices.
- (3) In addition to the above Delivery Service rates, ~~C~~ustomers served under this ~~R~~rate ~~S~~schedule may be subject to one ~~(1)~~ or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RATE SCHEDULE "GLO"

GAS LIGHTING SERVICE

AVAILABILITY

This ~~R~~ate ~~S~~chedule is available for unmetered outdoor gas lights for other than residential use as herein specified where the Company's existing distribution mains and services are suitable to supply such service.

DELIVERY SERVICE RATE

The following rate for delivering gas to the ~~C~~ustomer's location applies to all ~~C~~ustomers served under this ~~R~~ate ~~S~~chedule.

Each 2 cu. ft./hr. or less \$~~16.72~~~~11.75~~ per month.

GAS SALES SERVICE

In addition to the above Delivery Service rates, ~~C~~ustomers served under this ~~R~~ate ~~S~~chedule are subject to the gas cost rate applicable to Rate Schedule "GLO" provided on Sheet No. 42.

PUBLIC UTILITIES TAX

The Delivery Service, Gas Sales Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the ~~C~~ustomer is exempt from such tax.

PAYMENT TERMS

Bills are due within ~~twentyten~~ (~~1020~~) days of their date.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this ~~R~~ate ~~S~~chedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) The Customer shall install and own the lighting devices.
- (3) In addition to the above Delivery Service rates, ~~C~~ustomers served under this ~~R~~ate ~~S~~chedule may be subject to one (~~1~~) or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RATE SCHEDULE "NCR"

NEGOTIATED CONTRACT RATE

AVAILABILITY

This negotiated contract ~~I~~**T**ariff provision enables the Company to respond to Customers' competitive options in the energy services market. The Company shall use this negotiated contract ~~I~~**T**ariff to compete with alternate pricing situations resulting from, but not limited to, fuel switching, facility relocation or expansion, partial or complete plant production -shifting, potential physical bypass, or other options available to the Customer. The Company shall use the provisions of this ~~I~~**T**ariff only after a determination by the Company and the Customer that other existing ~~I~~**T**ariff options will not meet the Customer's needs.

ELIGIBILITY

This contract ~~I~~**T**ariff is available to any qualifying Customer as specified herein. Customer qualification shall be based upon meeting each of the following criteria as determined solely by the Company:

- (1) The Customer has an economic competitive alternative to full or partial service from the Company's standard ~~I~~**T**ariff rates, as determined by the Company;
- (2) The Customer is likely to select said alternative if the Company does not provide a negotiated contract rate; and
- (3) The price to the Customer will provide net revenues above the incremental costs to provide service under this negotiated contract rate-; ~~and~~
- (4) The Customer desires fixed pricing for a term of one ~~(1)~~**(1)** year or more which requires a gas supply tailored to the specified term and pricing conditions.

The Company shall determine eligibility on a case-by-case basis based upon information supplied by the Customer and in accordance with the Company's internal pricing guidelines. The Company's decision on the application shall consider the economics of the competitive alternative, as well as the practical aspects of securing that alternative (e.g., ability to secure environmental permitting, feasibility studies, switching ability, ability to secure required capital).

Issue Date: ~~April 28, 2010~~

Effective Date: ~~For Bills Rendered on and after June 1, 2010~~

Authorization: ~~Order No. 7781 dated June 1, 2010 in PSC Docket No. 10-159~~

RATE SCHEDULE "NCR"

**NEGOTIATED CONTRACT RATE
(Continued)**

SERVICE OPTIONS

If the Company concludes that the Customer meets all the eligibility requirements listed above, the Company shall enter into negotiations with the Customer for the purpose of offering such services as are believed to meet the Customer's requirements. Competitive offers may be made in a manner which provides the Customer with numerous choices for service. A menu of service options differentiated by contract term, quantity, pricing options, and service attributes may be made available to the qualifying Customer.

RATE

Pricing for delivery service only, a combination of delivery service and gas supply, and balancing service shall be determined on a case-by-case basis according to the nature of the competitive situation. The final arrangements between the Company and the Customer shall be included in the ~~c~~**C**ontract.

PUBLIC UTILITIES TAX

All rates and charges under this ~~R~~**r**ate ~~S~~**s**chedule, including gas cost if applicable, are subject to the Delaware Public Utilities Tax unless the Customer is exempt from such tax.

CONTRACT TERM

The contract term shall be specified in a contract between the Customer and the Company. The minimum term of any contract will be one ~~(1)~~ year and the maximum term will be five ~~(5)~~ years.

SPECIAL TERMS AND PROVISIONS

- (1) Upon agreement on service options, the Customer and the Company shall enter into a contract which specifies the services and the terms and conditions of providing the services. The Customer must sign the ~~c~~**C**ontract prior to commencement of this service and any investment by the Company. Service under the contractual agreement will commence on the date specified in the contract.

Issue Date: ~~April 28, 2010~~

Effective Date: ~~For Bills Rendered on and after June 1, 2010~~

Authorization: ~~Order No. 7781 dated June 1, 2010 in PSC Docket No. 10-159~~

RATE SCHEDULE "NCR"

**NEGOTIATED CONTRACT RATE
(Continued)**

SPECIAL TERMS AND PROVISIONS (Continued)

- (2) The contract shall be considered a confidential document between the Company and the Customer. By signing the contract, the Customer and the Company agree not to share the contract or information contained within the contract with anyone except the parties to the contract, the ~~Delaware~~-Public Service Commission of Delaware and the Office of the Public Advocate, unless given written consent from the other party. Violations by the Customer of the confidentiality agreement shall permit the Company to immediately terminate the contract with the Customer and serve the Customer under another rate schedule for which the Customer qualifies. The Customer shall also be responsible for the penalty provision described below and additional damages or prejudices to any other existing or potential contracts resulting from the breach of confidentiality.
- (3) The contract between the Company and the Customer shall include penalty provisions for early contract cancellation. If at any time prior to the end of the contract term the Customer elects to terminate the contractual agreement with the Company without exercising a re-contracting option for continuing service, the Customer shall be obligated to the terms for cancellation as specified within the contract.
- (4) The Company may offer value-added services in conjunction with the contract. All service attributes agreed to between the Company and the Customer shall be included in the contract.
- (5) The Company shall file all required information with the ~~Delaware~~-Public Service Commission of Delaware within thirty (30) days of the executed Contract.

Issue Date: ~~April 28, 2010~~

Effective Date: ~~For Bills Rendered on and after June 1, 2010~~

Authorization: ~~Order No. 7781 dated June 1, 2010 in PSC Docket No. 10-159~~

RATE SCHEDULE "ITS"

INTERRUPTIBLE TRANSPORTATION SERVICE

AVAILABILITY

This ~~R~~^Srate ~~S~~^Schedule is available to any non-residential ~~C~~^Customer with annual consumption of at least one hundred thousand (100,000) Ccf with facilities in operating condition capable of utilizing an alternative fuel due to the fact gas service provided is subject to complete interruption at any time during the year at the Company's option. The definition of an alternative fuel under this rate schedule shall be propane, fuel oil, or electricity. When applying for service under this Rate Schedule, the Customer is required to provide the Company, in writing, with the type and specific grade of alternative fuel utilized by the Customer. The Customer shall submit, within thirty (30) days of any change in operations, written notification when such change affects its alternate fuel capability. The Customer must also purchase all of its gas from or through a qualified supplier of natural gas as set forth in Rate Schedule SUP.

DELIVERY SERVICE RATE

Customer charge: \$935.00 per month

The rate per Ccf of consumption shall be determined on an individual ~~C~~^Customer basis according to the nature of the interruptible service to be provided. This rate can be adjusted upon one (1) day's notice to the Customer.

TRANSPORTATION AND BALANCING SERVICE

Customers must have the natural gas delivered to the Company's city gate in accordance with the Transportation and Balancing Rider General Terms and Conditions provided on Sheet No. 43. In addition to the above Delivery Service rate, the Customer is subject to the following Interruptible Balancing Service rate applied to all gas consumption.

Interruptible Balancing Service Rate: \$0.014 per Ccf of gas consumed

RATE SCHEDULE "ITS"

INTERRUPTIBLE TRANSPORTATION SERVICE (Continued)

PUBLIC UTILITIES TAX

The Delivery Service, Interruptible Balancing Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the Customer is exempt from such tax.

PAYMENT TERMS

Bills are due within ~~twentyten~~ (~~2010~~) days of their date.

MINIMUM BILL

The minimum monthly bill under this Rate Schedule is the Customer charge.

CONTRACT TERMS

The contract term shall be specified in a contract between the Customer and the Company. The minimum term of any contract will be one (1) year.

SERVICE INTERRUPTION

The Company will endeavor to provide as much notice as possible to Customers prior to any interruption ~~or~~ curtailment of gas delivery service. Customer agrees to accept complete interruption of service upon at least four (4) hours advance notice from any hour of the day. If the Customer fails to interrupt service, the Customer shall pay a ~~P~~penalty Rate of five dollars (\$5) per Ccf in addition to the currently effective rate. The Penalty Rate, which shall be credited to firm Customers through the GSR mechanism, shall remain in effect until such time as the Company, in its sole discretion, determines that normal service can be restored. The Customer agrees to hold the Company harmless from any loss, cost or damage occasioned by the interruption of service resulting from the Company's enforcement of this provision. In the event the Customer has an emergency that would cause the Customer great hardship if gas service is interrupted, the Company may, at its sole discretion based on available gas supply, waive interruption for a specified period of time. If the Customer fails to interrupt by the end of the specified period, the Customer shall pay the penalty shown above.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RATE SCHEDULE "ITS"

**INTERRUPTIBLE TRANSPORTATION SERVICE
(Continued)**

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this ~~R~~^Srate ~~S~~^Schedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Service purchased hereunder is for the use of the Customer in one ~~(1)~~ location only and is not to be shared or sold to others.
- (3) Service hereunder will be interrupted at the sole discretion of the Company.
- (4) Service hereunder will not be supplied from the Company's peaking facilities unless the Company waives the interruption of service due to an emergency.
- (5) In addition to the above Delivery Service rates, ~~C~~^Customers served under this ~~R~~^Srate ~~S~~^Schedule may be subject to one ~~(1)~~ or more riders containing additional charges applicable to the service received, such as ER and any applicable franchise fees.

Issue Date: **September 2, 2008**

Effective Date: **~~For Bills Rendered on and after September 3, 2008~~**

Authorization: **~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~**

RATE SCHEDULE "IBE"

INTERRUPTIBLE BEST EFFORTS SALES SERVICE

AVAILABILITY

This ~~R~~ate ~~S~~chedule is available to any commercial or industrial transportation ~~C~~ustomer or ~~S~~upplier for use as an interruptible gas supply for deliveries to or upstream of the distribution system or to any entity for off-system deliveries to replace third-party gas for any reason or to serve incremental loads. This service is available only on a best efforts basis subject to the ability of the Company to obtain gas supply and subject to interruption for any reason determined by the Company. Service under this ~~R~~ate ~~S~~chedule must be scheduled no later than 7:00 a.m. of the day before service is to begin. Transportation Customers that have a third-party supply interrupted will be subject to any applicable penalties that accrue before this service is scheduled.

DELIVERY SERVICE RATE

The rate for delivering gas to the Customer's location through the Company's distribution system will be at the Delivery Service rate set forth in the ~~R~~ate ~~S~~chedule under which the Customer normally receives service.

GAS SERVICE RATE

The gas rate for natural gas service shall be a negotiated, market-based rate. Any margins received under this rate shall be credited eighty percent (80%) to the firm customers through the GSR mechanism with twenty percent (20%) being retained by the Company.

PUBLIC UTILITIES TAX

The Delivery Service, Gas Sales Service, and any other applicable rates or charges are subject to the Delaware Public Utilities Tax unless the ~~C~~ustomer is exempt from such tax.

PAYMENT TERMS

Bills are due within ~~twentyten~~ (2010) days of their date.

CONTRACT TERMS

The contract term shall be specified in a contract between the Customer and the Company. The minimum term of any contract is one (1) day.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RATE SCHEDULE "IBE"

**INTERRUPTIBLE BEST EFFORTS SALES SERVICE
(Continued)**

SERVICE INTERRUPTION

The ~~C~~eustomer agrees to accept complete interruption of service upon at least four (4) hour advance notice from any hour of the day. If the customer fails to interrupt service, the ~~C~~eustomer shall pay a ~~P~~enalty ~~R~~ate of five dollars (\$5) per Ccf in addition to the currently effective rates. The Penalty Rate, which shall be credited to firm ~~C~~eustomers through the GSR mechanism, shall remain in effect until such time as the Company, in its sole discretion, determines that normal service can be restored. The ~~C~~eustomer agrees to hold the Company harmless from any loss, cost or damage occasioned by the interruption of service resulting from the Company's enforcement of this provision. In the event the ~~C~~eustomer has an emergency that would cause the ~~C~~eustomer great hardship if gas service is interrupted, the Company may, at its sole discretion based on available gas supply, waive interruption for a specified period of time. If the ~~C~~eustomer fails to interrupt by the end of the specified period, the ~~C~~eustomer shall pay the penalty shown above.

SPECIAL TERMS AND CONDITIONS OF SERVICE

- (1) Service under this ~~R~~ate ~~S~~chedule is subject to the standard terms and conditions of service as in effect from time to time under authority of the Public Service Commission of Delaware. It is also subject to the limitations stated under the "Availability" clause above.
- (2) Service purchased hereunder is for the use of the ~~C~~eustomer in one (1) location only and is not to be shared or sold to others.
- (3) Service hereunder will be interrupted at the sole discretion of the Company.
- (4) Service hereunder will not be supplied from the Company's peaking facilities unless the Company waives the interruption of service due to an emergency.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RATE SCHEDULE "GSR"

GAS SALES SERVICE RATES

FIRM SALES RATE SCHEDULES

The Gas Sales Service Rates applicable to the respective firm ~~R~~ate ~~S~~schedules, as listed below, will be applied to all ~~C~~ustomers served on that schedule based on a volumetric charge per Ccf (100 cubic feet). The Gas Sales Service Rates only apply to the respective firm ~~R~~ate ~~S~~schedules listed below and do not apply to the Interruptible Transportation Service, Transportation Service, Negotiated Contract Rate, and Interruptible Best Efforts Sales Service. The Gas Sales Service Rates will be calculated to the nearest tenth of a cent (.1¢).

The following lists the applicable Gas Sales Service Rates for the respective firm ~~R~~ate ~~S~~schedules as defined in this ~~T~~ariff:

| <u>RATE SCHEDULE</u> | <u>GAS SALES SERVICE RATES</u> |
|---------------------------------|--------------------------------|
| RS, ERS, GS, EGS, MVS, EMVS LVS | \$0.681 per Ccf |
| HLFS | \$0.488 per Ccf |
| GLR and GLO | \$0.218 per Ccf |

These rates are subject to change based on actual and estimated gas costs. The ~~Company~~~~The Company~~ will file with the Commission a copy of these Gas Sales Service Rates at least sixty (60) days prior to the regularly scheduled adjustment date, which shall be each November 1.

The November 1 rates will be based on a projected twelve ~~(12)~~ -month period of November through October (projected period). The rates computed under this ~~R~~ate ~~S~~schedule shall remain in effect for the projected period provided the latest estimated over collection does not exceed 4½% or the latest estimated under collection does not exceed 6% of the actual firm gas costs incurred to date along with the Company's latest firm gas cost estimates for the remainder of the over/under collection period (over/under period). The twelve ~~(12)~~ -month period used for the calculation of the over/under period will be based on the actual nine ~~(9)~~ months ended July 31 of each year and the projected three ~~(3)~~ months ended October 31 of each year. If it appears that the use of these rates for the twelve ~~(12)~~ -month over/under period will result in an over or under collection exceeding these limits, the Company shall apply to the Commission for revised rates to be effective until the next annual adjustment in the rates.

Issue Date: ~~September 1, 2015~~

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Authorization: ~~Order No. 8792 in PSC Docket No. 15-1362 dated September 22, 2015~~

**RATE SCHEDULE "GSR"
GAS SALES SERVICE RATES
(Continued)**

OVERALL METHODOLOGY

The overall projected firm gas costs for the twelve (12)-month projected period shall include:

- (1) Natural gas purchased from any Supplier; plus
- (2) Liquefied petroleum gas (LPG); plus
- (3) Liquefied natural gas (LNG); plus
- (4) Other hydrocarbons distributed to Customers or used as feedstock for production of substitute natural gas (SNG); plus
- (5) Storage, transportation, and any other gas related costs, including costs related to the gas supply department; plus
- (6) Charges paid to the Company's Suppliers for past periods unless disallowed by Delaware-the Public Service Commission of Delaware; less
- (7) The projected commodity gas costs for Interruptible Service; less
- (8) The demand and commodity gas costs for Negotiated Contract Rate Customers who are not charged the gas sales service rate associated with a firm Rate Schedule; less
- (9) The commodity gas costs for Interruptible Best Efforts Sales Service; less
- (10) All demand and commodity Supplier refunds received from the Company's Suppliers; less
- (11) The firm sales Customers receipt of one hundred percent (100-%) of the firm and interruptible transportation balancing service margins which will be a demand related gas cost; less or plus
- (12) The over or under collection for the prior over/under period of the actual nine (9) months ended July 31 and the projected three (3) months ended October 31. Interest will be calculated on the actual monthly over or under collection balances net of deferred income taxes at the rate of one-twelfth (1/12th) the annual refund interest rate issued by the Federal Energy Regulatory Commission on a quarterly basis; less or plus

(13) Any other applicable gas cost adjustments.

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Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RATE SCHEDULE ~~"GSR"~~GAS SALES SERVICE RATES
(Continued)

OVERALL METHODOLOGY (Continued)

A Demand Rate will be determined by dividing the total firm fixed cost components by the firm peak day capacity requirements. A Commodity Rate will be determined by dividing the total firm commodity cost components by total firm consumption for the respective determination period.

ALLOCATION TO RESPECTIVE FIRM RATE SCHEDULES

Rate Schedule HLFS — High Load Factor Service will be charged a single gas cost rate per Ccf based on the combination of a weighted average Demand and Commodity Rate developed on an overall seventy-one and fifty-seven one hundredths percent (71.57%) load factor for the customer class with the overall system weighted average gas cost rate. The purchased gas costs will be allocated to this Rate Schedule based on its annual consumption for the projected period.

Rate Schedule GLO, GLR — The Gas Lighting Services will be charged the weighted average Demand and Commodity Rates through a single gas cost rate per Ccf based on a one hundred percent (100%) load factor. The purchased gas costs will be allocated to this Rate Schedule based on its annual consumption for the projected period.

Rate Schedule RS-1, ERS-1, RS-2, ERS-2, GS, EGS, MVS, EMVS, LVS — These rate schedules will be assigned the remaining firm purchased gas costs after the firm purchased gas costs have been allocated to the above mentioned Rate Schedules less the portion of any shared margins resulting from capacity release, or off-system sales. These Rate Schedules will be charged a single gas cost rate per Ccf. This rate will reflect the sum of the projected demand and commodity costs for these classes divided by the sum of their annual consumption for the projected period.

MARGIN SHARING

Margins as used herein for off system sales means revenues less: (a) associated gas costs and (b) any applicable taxes based on gross receipts. Margins as used herein for capacity release means revenues less any applicable taxes based on gross receipts. As used in this ~~T~~^Itariff, the term "Shared Margins" means off system sales margins, and upstream capacity release margins.

Issue Date: ~~September 1, 2015~~

Effective Date: ~~For Service Rendered on and after November 1, 2015 — Temporary Basis~~

Authorization: ~~Order No. 8792 in PSC Docket No. 15-1362 dated September 22, 2015~~

RATE SCHEDULE ~~"GSR"~~

**GAS SALES SERVICE RATES
(Continued)**

MARGIN SHARING (Continued)

During the over/under period, the Company shall retain twenty percent (20%) and the firm customers, as described above, will receive eighty percent (80%) of all Shared Margins resulting from off-system sales. Additionally, during the over/under period, the Company shall retain ten percent (10%) and the firm customers, as described above, will receive ninety percent (90%) of all Shared Margins resulting from upstream capacity release transactions.

UNACCOUNTED FOR GAS INCENTIVE MECHANISM

The Unaccounted For Gas Incentive Mechanism was originally approved by the Commission on an experimental basis for the following three (3) consecutive twelve (12) month ending periods: August 31, 1993, 1994 and 1995. The Commission reviewed the Incentive Mechanism and determined it should be continued beyond the initial three (3) year period by Order No. 4189 in PSC Docket No. 95-206F.

DEFINITIONS

The terms utilized in the Unaccounted For Gas Incentive Mechanism shall have the following meanings:

1. Unaccounted For Gas shall be defined as the difference between total gas sales, billed and unbilled, and total gas send-out, exclusive of ~~C~~eompany-use gas and pressure compensated gas volumes.
2. The Unaccounted For Gas Target (UFG-T) shall be ~~3.20~~ three and two tenths percent (3.20%) of total gas sendout or total gas requirements.
3. The Dead Band shall mean +/- one-half percent (0.5%) ~~points~~ around the three and two tenths percent (3.20%) UFG-T. Unaccounted For Gas volumes which are within two and seven tenths percent (2.70%) to three and seven tenths percent (3.70%) of total gas sendout will be considered to be within the "dead band". Unaccounted For Gas volumes within the dead band will be regarded as meeting the objectives of this mechanism.

Issue Date: **September 4, 2009**

Effective Date: **For Service Rendered on and after November 1, 2009 – Temporary Basis**

Authorization: **Order No. 7665 in PSC Docket No. 09-398F dated October 6, 2009**

RATE SCHEDULE "GSR"

**GAS SALES SERVICE RATES
(Continued)**

PROCESS

The Company, as part of its annual Gas Sales Service Rate filing in September, will provide the actual Unaccounted For Gas volumes and total gas sendout for the preceding twelve (12) month period, ended July 31, in order that the Unaccounted For Gas can be expressed as a percentage of total gas sendout. This percentage will be compared to the target percentage of three and two tenths percent (3.20%) with a range of plus or minus one-half percent (+/-0.5%) by the ~~Delaware~~ Public Service Commission of Delaware Staff. The Staff will review the actual Unaccounted For Gas volumes on an annual basis and review the Delaware Division's performance under this mechanism in the next base rate proceeding.

Issue Date: **September 2, 2008**

Effective Date: **~~For Bills Rendered on and after September 3, 2008~~**

Authorization: **~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~**

RATE SCHEDULE "RNA"

REVENUE NORMALIZATION ADJUSTMENT

FIRM SALES RATE SCHEDULES

The Revenue Normalization Adjustment (RNA) will be applicable to Customers on Rate Schedules RS-1, ERS-1, RS-2, ERS-2, GS, and EGS.

OVERALL METHODOLOGY

Delivery Service revenues for Customers under the Rate Schedules described above are adjusted quarterly via a separate line item on the bill titled "Revenue Normalization Adjustment." The RNA is calculated to reflect a targeted annual average margin per Customer for each Rate Schedule as established in PSC Docket No. . The RNA is determined from the following series of calculations:

- (1) Actual Margin per Customer for month and Rate Schedule - Targeted Normalized Margin per Customer for month and Rate Schedule = the Difference per Customer for month and Rate Schedule;
- (2) Difference per Customer for month and Rate Schedule x the Customer count for month and Rate Schedule = the Over or Under Collection for month and Rate Schedule;
- (3) Total Over or Under Collection for quarter = Sum of the Over or Under Collection for all Rate Schedules subject to the RNA for three months of the quarter;
- (4) Current Quarter RNA Adjustment = Over or Under Collection for the quarter ÷ Projected Sales Volume over the next twelve (12) months for all Rate Schedules subject to the RNA;
- (5) Total RNA Adjustment = the Current Quarter RNA Adjustment + the previous three (3) Quarter RNA Adjustments + the Annual True-Up.
- (4)(6) Annual True-Up = difference between the Projected RNA Collection and Actual RNA Collection for the previous twelve (12) months ÷ by the Projected Sales Volume over the previous twelve (12) months for all Rate Schedules subject to the RNA.

Issue Date:

Effective Date:

Authorization:

**TRANSPORTATION AND BALANCING RIDER
GENERAL TERMS AND CONDITIONS**

1 GENERAL

- 1.1 Transportation service is available to commercial and industrial ~~C~~customers ~~with one or more contiguous meters within a specific geographic location~~ having consumption equal to, or greater than, 30,000 CCF per year. For purposes of meeting the 30,000 CCF threshold, a Customer may aggregate consumption from accounts it holds for meters located on contiguous properties; or in the case of poultry houses, the properties need not be contiguous but must be set up under a common name for billing purposes to qualify for aggregation to meet the threshold. This service provides the Customer with the ability to purchase their own Gas supply (Customer-owned Gas) and transport, or have transported, such Gas to the Company's distribution system. Transportation service consists of the following components with associated charges: (a) the transportation of the Customer-owned Gas through pipeline systems upstream of the Company, including the interstate pipeline system of Eastern Shore Natural Gas Company (ESNG), (b) the transportation of the Customer-owned Gas through the Company's distribution system to the Company's installed meter, (c) balancing the difference between the Volume of Gas provided by the Customer and the Volume of Gas actually consumed by the Customer on a daily basis, and (d) the resolution of imbalances created by the difference between the Volume of Gas the Customer provided and the Volume of Gas the Customer consumed which may exist at the end of a billing Month. Customers utilizing transportation service will be billed for delivery service, balancing service, Capacity, a one-time transition charge (or credit) for under (or over) collection of gas costs from prior periods, and other charges applicable for the rate schedule under which they are served.
- 1.2 Once approved for transportation service it is necessary for the Customer to execute a firm contract(s) with a Qualified Supplier of Natural Gas and other entities, if necessary, to ensure the firm transportation of such Gas to the Point(s) of Receipt. The Customer is required to notify the Company of the name of its Qualified Supplier prior to the fifteenth (15th) calendar day of the Month preceding the Month for which transportation will commence.

2 DEFINITIONS

Agent: An entity authorized to act on behalf of the Customer, more specifically defined in Section 10 of this Transportation and Balancing Rider.

British Thermal Unit: The amount of heat required to raise the temperature of one (1) pound of water one (1) degree Fahrenheit at 60 degrees Fahrenheit.

Broker: An entity or individual that acts as an intermediary in the sale and purchase of Gas but does not take title to Gas. A Broker can be an Agent.

Effective Date: ~~For Bills Rendered on and after September 1, 2015~~

Authorization: ~~Order 8752 in PSC Docket No. 13-383 dated July 21, 2015~~

Capacity: The physical space, in dekatherms (DTs), provided by a pipeline for a fixed monthly reservation charge which gives a shipper the right to transport up to a maximum daily Quantity of Gas between defined points on the pipeline's system.

CCF: One hundred (100) cubic feet of Gas.

CCT: Central Clock Time, which includes the recognition of Daylight Savings Time.

Customer: For the purposes of this Transportation and Balancing Rider, Customer shall mean an individual Customer as defined in the Section 16.1 of the Rules and Regulations of this tariff or the aggregation of Customer accounts of one or more contiguous meters in a specific geographic location for the purpose of transporting their own Gas through the Company's distribution system.

Customer-owned Gas: Gas to which the Customer has title clear of any liens and encumbrances.

Daily Contract Quantity (DCQ): The monthly Quantity of Gas scheduled by the Customer to be delivered to the Company's distribution system each Day of the Month, which has been adjusted to account for the Shrinkage Factor.

Flowing Gas: Gas flowing through a pipeline or distribution system excluding Gas taken out of storage.

Gas or Natural Gas: Processed or unprocessed natural gas, vaporized liquid natural gas, synthetic gas, gas from coal seams or any mixture of these gases.

Gas Day or Day: A period of twenty-four (24) consecutive hours, beginning at nine o'clock (9:00) a.m. Central Clock Time (CCT).

Imbalance: Any difference between the Volume of Gas provided by the Customer and the Volume of Gas consumed by the Customer. Nominations are adjusted for thermal content and shrinkage to determine the Volume of Gas provided by the Customer.

Marketer: An entity that purchases and takes title to Gas as an intermediary for sale to a Customer. A Marketer can be an Agent.

MCF: One thousand (1,000) cubic feet of gas.

Month: The period beginning at nine o'clock (9:00) a.m. CCT or the hour otherwise agreed upon by the Customer and the Company on the first Day of the calendar month and ending at the same hour on the first Day of the next succeeding calendar month.

Issue Date: July 21, 2015

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Authorization: Order 8752 in PSC Docket No. 13-383 dated July 21, 2015

Nomination: The Quantity of Gas, adjusted by the Shrinkage Factor, that the Customer is delivering, or having delivered on its behalf, to a Point(s) of Receipt in the electronic format as provided by the Company.

Point(s) of Delivery: The point(s) at the connection at which the Gas leaves the facilities of the Company and enters the downstream facilities of the Customer.

Point(s) of Receipt: The point(s) at the connection at which the Gas enters the facilities of the Company and leaves the facilities of ESNG.

Qualified Supplier: An entity that has met all qualification requirements as stated in Rate Schedule "SUP", and is deemed capable of holding title to the Gas, and causing it to be delivered to the upstream pipeline interconnect on behalf of the customer.

Quantity of Gas: The Volume of Gas adjusted by the Thermal Factor and expressed in dekatherms, unless otherwise specified.

Replacement Shipper: An entity that takes title to Capacity upstream of the Company's distribution system under the terms of the interstate pipeline's tariff.

Shrinkage Factor: A percentage applied to a Nomination to adjust for Gas lost and unaccounted-for within the Company's distribution system. The Shrinkage Factor shall be determined annually and will be the five-year average.

Summer Peaking Customer: A Customer whose lowest DCQ from November to March does not exceed ten percent (10%) of its highest DCQ for the Year.

Thermal Factor: The amount of British Thermal Units in one MCF of Natural Gas divided by one million. The thermal factor for converting between DT and MCF shall be 1.035 unless otherwise specified by the Company.

Volume of Gas: The number of units of Gas expressed in cubic feet, unless otherwise specified.

Year: A period of three hundred sixty-five (365) consecutive Days; provided, however, that any such Year which contains a date of February 29th shall consist of three hundred sixty-six (366) consecutive Days.

3 REQUEST FOR TRANSPORTATION SERVICE

Each prospective transportation Customer, or existing transportation Customer seeking enrollment of a new meter, must submit a completed application on the standard form provided by the Company no later than the first (1st) calendar day of the Month preceding the Month in which the transportation service will commence. Service will be provided by the Company based upon the established criteria referenced within the Customer's applicable rate schedule, available capacity and the Customer providing suitable Gas to the Point(s) of Receipt.

4 CONTRACT FOR SERVICE

A Service Agreement with an initial term of one Year must be executed by each Aapplicant as a condition of receiving transportation service. The Service Agreement shall specify the date on which service is to begin, Point(s) of Receipt and Point(s) of Delivery, the rate schedule(s) under which service is to be provided and other conditions of receipt by the Company and delivery to the Customer. Transportation of Gas will not begin until a fully executed Service Agreement is completed. Service Agreements must be renewed annually, and received by the Company no later than the fifteenth (15th) calendar day of the Month preceding the Month of renewal in order for the customer to continue participating in the transportation program without an interruption of service. The Company may waive the annual renewal requirement at its discretion.

5 GAS TO BE TRANSPORTED BY THE COMPANY

The Customer is responsible for making all arrangements necessary for transporting the Gas to a Point(s) of Receipt in compliance with pressure requirements established by the Company or any upstream pipeline for such Point(s) of Receipt. Gas received for one Customer will be commingled with the Gas of other customers and suppliers. Gas transported by the Company shall be and remain the property of the Customer.

6 QUALITY OF GAS

Gas received by the Company for the account of the Customer shall be Natural Gas conforming to the quality specifications as provided for in the General Terms and Conditions of the tariff of the pipeline that is interconnected to the Company's distribution system. Any Gas entering the Company's system at a Point(s) of Receipt that is not an interconnection with an interstate pipeline must also meet the "pipeline quality" standard set forth above.

7 TITLE TO GAS

The Customer must have good title to all the Gas that enters the Company's distribution system for transportation to a Point(s) of Delivery. Such title shall be free and clear of all liens, encumbrances, and claims whatsoever. The Customer agrees to indemnify and hold the Company harmless against any loss or cost incurred by the Company on account of liens, encumbrances or claims resulting from any possession or transportation by the Company.

8 LIABILITY

The Company shall not be liable for any loss to the Customer arising from or out of transportation service under any rate schedule, including loss of gas in the possession of the Company. The Company makes no guarantee against and assumes no liability for interruptions of service.

9 METERING AND ASSOCIATED EQUIPMENT

Transportation service of Customer-owned Gas to the Point(s) of Delivery is not expected to require any special metering or communication equipment in excess of what would be needed to provide regular delivery and standard Gas sales service. However, there may be situations which will require knowledge of daily usage by transportation Customers that will require additional equipment. If any additional metering or communication equipment is required to provide transportation service, the Customer will reimburse the Company for such equipment and its installation. The Customer shall provide any electrical supply or phone line needed for the operation of any additional equipment. As referenced in Section 11.2 of the Rules and Regulations of this Tariff, remote reading will be utilized for customers with consumption greater than 100,000 annual CCF.

10 AGENTS ACTING ON BEHALF OF THE CUSTOMER

A Customer may use the services of an Agent to act on its behalf for the delivery of Gas to the Company's distribution system. An Agent can be a Broker, Marketer or a Qualified Supplier. All Customers are required to have a Qualified Supplier on record. If a Customer engages the use of an Agent, it is the responsibility of the Customer to notify the Company, using the standard form provided by the Company, of their designation of such Agent to conduct business on their behalf. A Customer may choose to designate an Agent in addition to their Qualified Supplier. Any notices provided to a Customer's Agent shall be deemed to have been provided to the Customer and the Company shall be held harmless from any actions taken by the Agent.

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Authorization: Order 8752 in PSC Docket No. 13-383 dated July 21, 2015

11 COMPANY AS AGENT

The Company may act as Agent for a Customer in securing and transporting Gas supply to a Point(s) of Receipt. The Company shall not be responsible for charges incurred on behalf of the Customer, nor for the performance, non-performance or continued availability of any pipeline or other services. The charges for this service shall be determined by negotiation between the Company and the Customer.

12 DETERMINATION OF DAILY CONTRACT QUANTITY

- 12.1 A Daily Contract Quantity (DCQ) for each Month for the following twelve (12) month period shall be calculated annually by the Company based on usage during the previous three Years, if available. Previous usage shall be adjusted for normal weather in a matter determined by the Company. The Customer will be obligated to have the DCQ delivered each Day of the Month to the agreed upon Point(s) of Receipt.
- 12.2 The Company may approve adjustments to the Monthly DCQs on an ongoing basis due to changes in a Customer's Gas equipment, pattern of usage, or any other information affecting demand that is deemed reliable by the Company. To be considered, such information must be provided to the Company in writing from the Customer or the Customer's Agent.
- 12.3 The Company considers DCQ information to be confidential and proprietary data for the Customer. The Company will only provide usage data to the Customer or the Customer's Agent. If a Customer wishes to authorize a third party to have access to such data the Company must receive a written letter of authorization, on the Customer's official letterhead, and signed by the authority referenced as a contact under the Customer's account information.
- 12.4 The Company will not provide DCQ information to multiple third parties simultaneously. If multiple parties are requesting DCQ information for the same Customer, the Company will provide that data directly to the Customer or to one Agent for such Customer.

13 NOMINATIONS AND SCHEDULING

- 13.1 A Customer's DCQ will be considered their daily Nomination. The Company shall require from either the Customer or the Customer's Agent on record a signed DCQ Nomination form. The Nomination form must be received by the Company via mail, electronic mail, or facsimile transmission no later than the fifteenth (15th) calendar day of the Month prior to the first Day of the Month in which transportation service begins, and annually on that date thereafter. If the nomination cannot be confirmed with the delivering pipeline(s) or other source(s), the nomination will be rejected.

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Authorization: Order 8752 in PSC Docket No. 13-383 dated July 21, 2015

- 13.2 Upon receipt of a completed and properly executed DCQ Nomination form by the Company, the Company will release upstream ESNG transportation Capacity to the Customer, or the Customer's Agent on record, to facilitate the transportation of Gas to the Point(s) of Receipt.
- a. The Customer, or Customer's Agent on record, as the recipient of released Capacity becomes the Replacement Shipper with respect to ESNG.
 - b. For all Customers other than Summer Peaking Customers, the amount of ESNG Capacity to be released will be equal to the highest DCQ within the twelve (12) Months of DCQs calculated.
 - c. For Summer Peaking Customers, the amount of ESNG Capacity to be released will be equal to the monthly calculated DCQ.
 - d. ESNG will invoice the Replacement Shipper for all pipeline Capacity and commodity charges associated with the released Capacity.
- 13.3 Upon the release of Capacity, the Customer, or their Agent on record, shall be responsible for scheduling their DCQ Nomination Quantity on ESNG for the ultimate delivery to the designated Point(s) of Receipt.
- 13.4 Any variance between the Nomination Quantity and the approved DCQ will be subject to a balancing penalty of \$30.00 per DT. Such penalty shall be paid by the Customer in addition to the cost of Gas supply used to serve the customer.
- 13.5 In the event that changes to existing DCQ's, as referenced in section 12.2, are approved, the Customer is required to resubmit their DCQ nomination sheet by the deadline stated in section 13.1.

14 FIRM BALANCING SERVICE

- 14.1 Balancing the difference between the Customer's nominated DCQ and the Volume of Gas consumed by the Customer is performed daily by the Company on a firm basis. The Company will charge a Firm Balancing Service Rate pursuant to the applicable rate schedule under which service is provided.
- 14.2 Any Imbalance for a billing month will be reconciled (*i.e.*, "cashed-in" or "cashed-out") at the Company's weighted average cost at the city gate for Flowing Gas for the calendar month in which most of the billing month occurs. Estimated costs will be used based on nominations made by the Company when the applicable calendar month is not completed before billing the Customer.
- 14.3 For the purposes of Company invoicing, nominated Quantities of Gas shall be converted to CCF using the Thermal Factor and reduced by the Shrinkage Factor to determine the volume actually delivered to the Point(s) of Delivery.

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Authorization: Order 8752 in PSC Docket No. 13-383 dated July 21, 2015

15 INTERRUPTIBLE BALANCING SERVICE

- 15.1 Balancing between the Customer's DCQ and the Volume of Gas consumed by the Customer is performed daily by the Company on an interruptible basis. Imbalances between the Volume of Gas provided by the Customer and the Volume of Gas consumed by the Customer for a billing Month will be cashed-in or cashed-out at the Company's weighted average cost at the city gate for Flowing Gas for the calendar Month in which most of the billing month occurs. Estimated costs will be used based on Nominations made by the Company when the applicable calendar month is not completed before billing the Customer.
- 15.2 The Customer is expected to cease using Gas if the Customer's supply is interrupted. When a supply interruption occurs the Customer must notify the Company immediately upon interruption and upon resumption of supply. During the interruption period the Customer's DCQ will be set to zero for purposes of calculating daily shortfalls and monthly imbalances. Using Gas during a period of supply interruption will subject the Customer to the same penalty rate specified in the interruptible rate schedule for failure to interrupt service unless the Company is not interrupting customers and has Gas supply available. In the later case, the fee specified in 15.3, below, will apply to Gas used during the Customer's supply interruption unless the Customer schedules another service from the Company.
- 15.3 If the Customer, or the Customer's Qualified Supplier, fails to supply the DCQ on any Gas day the Customer shall be billed a fee of \$30.00 per DT for the difference between the DCQ Nomination, which is in DTs, and the Volume actually supplied by the Customer. Such penalty is in addition to any cash-in or cash-out price paid by the Customer for monthly imbalances.
- 15.4 On a daily basis, the Company, in its sole discretion, may limit Customer usage to the Volume of Customer-owned Gas that is delivered to the Company's distribution system.
- 15.5 When the Company interrupts the delivery of Customer-owned Gas to an Interruptible Transportation Customer for distribution system reasons any monthly imbalance up to the total DCQ Volumes delivered to the Company's distribution system by such Interruptible Transportation Customer during the period of interruption will be purchased by the Company at the Customer's cost or the otherwise effective cash-in or cash-out price, whichever is greater.

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16 OPERATIONAL FLOW ORDER

At any time that Customer-owned Gas, in the sole judgment of the Company, adversely impacts the Company's distribution system or its ability to serve firm Customers, the Company may issue an Operational Flow Order and refuse to accept Customer-owned Gas at the Point(s) of Receipt or require the Customer to adjust its Nominations up or down. Operational Flow Orders will be issued by the Company eight (8) hours in advance of implementation, unless exigent circumstances dictate a shorter notice period.

RATE SCHEDULE "SUP"

GAS SUPPLIER REQUIREMENTS

AVAILABILITY

The requirements under this Schedule apply to Qualified Suppliers that contract with a Customer to deliver the Customer's Daily Contract Quantity (DCQ) to the Point(s) of Receipt under the General Terms and Conditions of the Transportation and Balancing Rider. To become a Qualified Supplier, a supplier must submit a completed application on the Company's standard form to provide service to Customers under this Schedule and must satisfy the Company's credit requirements set forth below.

RESPONSIBILITY FOR GAS DELIVERY

The Qualified Supplier shall provide the necessary Gas supply to facilitate Nomination and delivery of the Customer's DCQ in accordance with the General Terms and Conditions of the Transportation and Balancing Rider. If the Qualified Supplier has more than one Customer, and has become a Replacement Shipper on behalf of the Customer(s), a Nomination which is the sum for more than one Customer will be made on interstate pipelines upstream of the Company's distribution system but the Quantity of Gas for each Customer must be identified on the Nomination to the Company. Failure to deliver the required Quantity of Gas will make the Qualified Supplier subject to penalties as stated in the General Terms and Conditions of the Transportation and Balancing Rider. If the Qualified Supplier fails to pay any penalties, the Customer for whom the Qualified Supplier is delivering Gas shall be responsible for payment of such penalties.

CREDITWORTHINESS

To become a Qualified Supplier, the supplier must demonstrate to the Company's satisfaction that it has met and continues to meet the creditworthiness criteria of at least one non-affiliated interstate pipeline that delivers Natural Gas to the Company's city gate or to an interstate pipeline that is connected to Eastern Shore Natural Gas. Upon notification by the Company that the supplier no longer satisfies the credit criteria or has failed to timely pay any bill rendered under this Schedule, the supplier is disqualified until such time as satisfactory evidence is provided by the supplier that the supplier's overall financial condition again meets the Company's credit criteria or an acceptable credit enhancement, including but not limited to a cash deposit, letters of credit or surety bonds, is furnished to the Company.

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Authorization: Order 8752 in PSC Docket No. 13-383 dated July 21, 2015

TAXES

Any applicable taxes including, but not limited to, the Public Utilities Tax will be added to all charges.

PAYMENT TERMS

Bills are due within ~~twentyten~~ (~~2010~~) calendar days of their date.

LIABILITY LIMITS

The Company shall not be liable for any loss, cost, damage or expense occasioned by the calculation of the DCQ. The Qualified Supplier shall warrant that, at the time of delivery of Gas to the Point(s) of Receipt, it will have good title to deliver all Gas Quantities. The Company shall have no liability with respect to any Gas prior to its delivery to the Point(s) of Receipt or after its delivery to the Point(s) of Delivery.

Issue Date: **July 21, 2015**

Effective Date: ~~For Bills Rendered on and after September 1, 2015~~

Authorization: **Order 8752 in PSC Docket No. 13-383 dated July 21, 2015**

RATE SCHEDULE "ER"

ENVIRONMENTAL RIDER

PURPOSE

The purpose of this rider is to recover reasonable environmental costs associated with cleaning up former manufactured gas plants (MGP). Applicable environmental costs are those incurred as a result of, but not limited to, investigation, testing, monitoring, remediation (including remediation of the groundwater), land acquisition, and legal costs relating to former MGP sites, disposal sites, or sites to which material may have migrated as a result of the earlier operation and/or decommissioning of MGPs. Environmental costs expended will be offset by any payments related to these costs received by the Company from insurance proceeds or from another party. Environmental costs shall not include expenses incurred in connection with litigation by third parties claiming personal injury or by third parties claiming damage to their property as a result of the operation or decommissioning of MGPs or as a result of the migration of materials from MGP sites.

APPLICABILITY

The environmental rider will be applicable to all firm Delivery Service customers.

OPERATION OF THE RIDER

The Company will file with the Commission a copy of the environmental rider computation at least 30 days prior to the proposed effective date, which will be each December 1.

The calculation filed will be supported by all bills and receipts relating to the amount of any environmental costs incurred in the preceding Environmental Cost Year for which the Company seeks to begin recovery. In the same filing, the Company shall include similar material and information to support any expenses and/or recoveries resulting from Third Party claims. The Company shall also submit in its annual filing a projection of environmental costs for the following Environmental Cost Year based on the best information available at the time of filing.

RATE

The rate for the rider effective December 1, 2015 is \$0.0001 per Ccf.

Issue Date: October 29, 2015

Effective Date: For Service Rendered on and after December 1, 2015 – Temporary Basis

Authorization: Order No. 8817 dated November 24, 2015 PSC Docket No. 15-1516

RATE SCHEDULE "ER"

**ENVIRONMENTAL RIDER
(Continued)**

DETERMINATION OF RATE

The rider shall be comprised of an amortization factor and a reconciliation factor as follows:

- (1) Amortization Factor: Recovery of net environmental costs incurred during an Environmental Cost Year will be accomplished through a five (5) year amortization, offset by the tax benefit associated with those environmental costs as defined below. A net annual amortization amount will be calculated for each of the five (5) years of amortization scheduled for the Environmental Cost Year. The amortization factor for any year will be comprised of the total net annual amount scheduled for that year.
- (2) Reconciliation Factor: The reconciliation factor shall be equal to the over/under collection of the environmental cost rider. Over/under collection is the accumulated experienced net over or under recovery of the environmental costs during the twelve (12)- month period ending with the month of August immediately preceding the beginning of the next Recovery Year.
- (3) Rider Rate: The rider rate shall be equal to the sum of the amortization and reconciliation factors divided by projected firm sales over the next recovery period of December 1 through November 30. The rate shall be rounded to four (4) decimal places per Ccf.

DEFINITIONS

- (1) Environmental Cost Year is the time period over which environmental costs are incurred and any payments from other parties are netted against the costs. For purposes of this rider, the Environmental Cost Year will be from October 1 through September 30. The Environmental Cost Year will include actual data recorded for the year. Recovery of environmental costs for an Environmental Cost Year will begin with the Recovery Year that starts immediately following the end of the Environmental Cost Year.
- (2) Recovery Year is each December 1 through November 30 and is the time period over which the annually calculated environmental rider rate will be billed to firm customers.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RATE SCHEDULE "ER"

**ENVIRONMENTAL RIDER
(Continued)**

DEFINITIONS (Continued)

- (3) Tax benefit (TB) associated with environmental expenditures shall be calculated as follows:

$$T_{bn} = AEC_n * [5-x]/5 * .1306 * .39742$$

where:

AEC_n = Actual Environmental Costs incurred in Environmental Cost Year "n"

x = The number of years that the Actual Environmental Costs (AEC) incurred in Year "n" have been subject to amortization ($x = 1, 2, 3,$ and 4)

$.1306$ = Before Tax Cost Rate

$.39742$ = Effective Combined Federal and State Income Tax Rate.

The Before Tax Cost Rate of .1306 and the Effective Combined Federal and State Income Tax Rate of .39742 are the rates at the time of implementation of this rider and are subject to change. Any change in the Before Tax Cost Rate will be implemented starting when the next Rider Rate is calculated for the next Recovery Year. Any change in the Effective Combined Federal and State Income Tax Rate will be implemented starting with the recovery calculation for next Environmental Cost Year that ends after the rate changes.

Issue Date: September 2, 2008

Effective Date: For Bills Rendered on and after September 3, 2008

Authorization: Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186

MISCELLANEOUS CUSTOMER CHARGES

1 CONNECTION CHARGE

Each Applicant for gas service shall pay to the Company a Connection Charge of thirty-five dollars (\$35) before gas service is activated by the Company at the Customer's premises. Such Connection Charge shall not be collected from builders or other contractors activating gas service during the construction of a premises s prior to occupation by the Company's customer of record.

2 RECONNECTION CHARGE

Whenever a Customer's gas is turned off at Customer's request, or Customer's meter disconnected by reason of non-compliance with these Rules and Regulations or orders of the Public Service Commission of Delaware, a Reconnection Charge of thirty five dollars (\$35) must be paid and other satisfactory arrangements made with the Company prior to 3:00p.m. of a normal business day before the account is reactivated and gas service reconnected by the end of the next business day.

3 AFTER HOURS SERVICE CONNECTION OR RECONNECTION CHARGE

If the Customer desires that the initial gas service connection or gas service reconnection following disconnection by the Company for any reason, be completed on the same day as the request is received by Company or outside the Company's normal business hours, such After Hours Reconnection may be performed, subject to the availability of Company personnel. The After Hours Connection or Reconnection Charge shall be sixty dollars (\$60).

4 SEASONAL RECONNECTION CHARGE

Whenever a residential Customer's gas is turned off or Customer's meter disconnected by the Company at Customer's request and the account placed on inactive status, and such account is reactivated by the same Customer no less than thirty (30) days and no more than one hundred eighty (180) days from the date of the disconnect, a Seasonal Reconnection Charge equal to the monthly Customer Charge in the Customer's applicable Rate Schedule for each month the account was inactive, plus the Reconnection Charge provided in 2 (above), shall be paid. Such payment, along with other satisfactory arrangements for reconnection, shall be made with the Company for reconnection the following normal business day.

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

MISCELLANEOUS CUSTOMER CHARGES (Continued)

5 FIELD COLLECTION CHARGE

Service interruptions may be avoided by paying the overdue amount prior to the past due date of the gas bill, or by paying the overdue amount plus a collection fee of seventeen dollars (\$17) to the Company or an authorized agent of the Company.

6 RETURNED PAYMENT CHARGE

Payment for Services provided under this Tariff, Customer deposits, or other Tariff charges which are returned unpaid by the Customer's bank or other financial institution shall result in an additional charge of twenty dollars (\$20) per occurrence, and will be charged against the Customer's account. Failure to pay the full amount of the bill including the Returned Payment Charge may result in discontinuance of the Customer's service. After the second returned payment the Company reserves the right to notify the Customer that an alternate payment method (other than a personal check or bank debit) will be required for payment of the Company's bill statements.

7 CHANGE OF ACCOUNT CHARGE

If the change of occupants in a premise with existing gas service occurs without a physical service disconnection, a Change of Account may occur. The Company shall bill to the ~~a~~^Applicant a Change of Account Charge in the amount of seventeen dollars (\$17).

8 FAILED TRIP CHARGE

In the event a Customer, or other entity, requesting service from the Company that requires a field visit to a premise, fails to keep a scheduled appointment with the Company's employee at said premises to provide a service requested by the Customer, the Customer shall pay a Failed Trip Charge of thirty-five dollars (\$35).

Issue Date: ~~September 2, 2008~~

Effective Date: ~~For Bills Rendered on and after September 3, 2008~~

Authorization: ~~Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186~~

RATE SCHEDULE "TSFF"

TOWN OF SMYRNA FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the Town of Smyrna franchise fee, from all customers within the limits of the Town of Smyrna in accordance with the Franchise Agreement between the Company and the Town of Smyrna. This franchise fee will be in effect until December 31, 2029.

APPLICABILITY

The Town of Smyrna Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the Town of Smyrna.

RATE

The rate applicable to all Delivery Service throughput is \$.0181 per Ccf.

Issue Date: April 17, 2015

Effective Date: For Bills Rendered on and after June 3, 2015

Authorization: Order No. 8745 dated June 2, 2015 in PSC Docket No. 15-0950

RATE SCHEDULE "CMFF"
CITY OF MILFORD FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the City of Milford franchise fee, from all customers within the limits of the City of Milford in accordance with the Franchise Agreement between the Company and the City of Milford. This franchise fee will be in effect until June 27, 2019.

APPLICABILITY

The City of Milford Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the City of Milford, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.010 per Ccf.

Issue Date: September 2, 2008

Effective Date: For Bills Rendered on and after September 3, 2008

Authorization: Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186

RATE SCHEDULE "TGFF"

TOWN OF GEORGETOWN FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the Town of Georgetown franchise fee, from all customers within the limits of the Town of Georgetown in accordance with the Franchise Agreement between the Company and the Town of Georgetown. This franchise fee will be in effect until June 27, 2021.

APPLICABILITY

The Town of Georgetown Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the Town of Georgetown, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.010 per Ccf.

Issue Date: September 2, 2008

Effective Date: For Bills Rendered on and after September 3, 2008

Authorization: Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186

RATE SCHEDULE "MBFF"

TOWN OF MILLSBORO FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the Town of Millsboro franchise fee, from all customers within the limits of the Town of Millsboro in accordance with the Franchise Agreement between the Company and the Town of Millsboro. This franchise fee will be in effect until September 4, 2021.

APPLICABILITY

The Town of Millsboro Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the Town of Millsboro, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.0181 per Ccf.

Issue Date: September 2, 2008

Effective Date: For Bills Rendered on and after September 3, 2008

Authorization: Order No. 7434 dated September 2, 2008 in PSC Docket No. 07-186

RATE SCHEDULE "MTFF"

TOWN OF MILTON FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the Town of Milton franchise fee, from all customers within the limits of the Town of Milton in accordance with the Franchise Agreement between the Company and the Town of Milton. This franchise fee will be in effect until January 7, 2032.

APPLICABILITY

The Town of Milton Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the Town of Milton, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.0181 per Ccf.

Issue Date: December 2, 2008

Effective Date: For Bills Rendered On And After February 1, 2009

Authorization: Order No. 7520 dated January 29, 2009 in PSC Docket No. 08-412T

RATE SCHEDULE "SFFF"

CITY OF SEAFORD FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the City of Seaford franchise fee, from all customers within the limits of the City of Seaford in accordance with the Franchise Agreement between the Company and the City of Seaford. This franchise fee will be in effect until June 23, 2033.

APPLICABILITY

The City of Seaford Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the City of Seaford, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.0181 per Ccf.

Issue Date: December 2, 2008

Effective Date: For Bills Rendered On And After February 1, 2009

Authorization: Order No. 7519 dated January 29, 2009 in PSC Docket No. 08-411T

RATE SCHEDULE "DBFF"

TOWN OF DAGSBORO FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the Town of Dagsboro franchise fee, from all customers within the limits of the Town of Dagsboro in accordance with the Franchise Agreement between the Company and the Town of Dagsboro. This franchise fee will be in effect until December 20, 2022.

APPLICABILITY

The Town of Dagsboro Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the Town of Dagsboro, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.0181 per Ccf.

RATE SCHEDULE "CLFF"

CITY OF LEWES FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the City of Lewes franchise fee, from all customers within the limits of the City of Lewes in accordance with the Franchise Agreement between the Company and the City of Lewes. This franchise fee will be in effect until September 11, 2031.

APPLICABILITY

The City of Lewes Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the City of Lewes, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.0181 per Ccf.

Issue Date: September 19, 2011

Effective Date: For Bills Rendered On And After November 19, 2011

Authorization: Order No. 8071 in PSC Docket No. 11-401T dated November 8, 2011

RATE SCHEDULE "SBFF"

TOWN OF SELBYVILLE FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the Town of Selbyville franchise fee, from all customers within the limits of the Town of Selbyville in accordance with the Franchise Agreement between the Company and the Town of Selbyville. This franchise fee will be in effect until June 11, 2027.

APPLICABILITY

The Town of Selbyville Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the Town of Selbyville, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.0181 per Ccf.

Issue Date: June 18, 2012

Effective Date: For Bills Rendered On And After August 20, 2012

Authorization: Order No. 8195 in PSC Docket No. 12-276T dated August 7, 2012

RATE SCHEDULE "TFFF"

TOWN OF FREDERICA FRANCHISE FEE RIDER

PURPOSE

The purpose of this rider is to recover the Town of Frederica franchise fee, from all customers within the limits of the Town of Frederica in accordance with the Franchise Agreement between the Company and the Town of Frederica.

APPLICABILITY

The Town of Frederica Franchise Fee Rider will be applicable to all firm and interruptible Delivery Service customers within the limits of the Town of Frederica, excluding those customers from whom the Company is prohibited by law from collecting said surcharge.

RATE

The rate applicable to all Delivery Service throughput is \$0.010 per Ccf.

Issue Date: October 31, 2014

Effective Date: For Bills Rendered On And After February 1, 2015

Authorization: Order No. 8697 in PSC Docket No. 14-0495 dated January 6, 2015

Summary of Significant Assumptions **For the Test Period**

The Test Period ending March 31, 2016 was developed by adjusting the Test Year amounts to annualize known and measurable changes and to properly reflect transactions as they would occur in a “normal” year for which the rates would be in effect.

Assumptions to Adjust Test Year

Rate Base

The Rate Base for the Test Period was based primarily on the forecasted thirteen-month average balances. Actual balances for March 31, 2015 through June 30, 2015 and forecast of the month-end balances for July 1, 2015 through March 31, 2016 were used for the Test Period. The Deferred Income Tax and ITC were based on the average of the actual March 31, 2015 balances and forecasted March 31, 2016 balances. Investor supplied cash working capital was calculated using the lag days calculated for 2015 applied to the forecasted expenses for the Test Period. In addition, certain adjustments were made to Plant in Service and Accumulated Depreciation.

Plant in Service – All projects classified as Construction Work in Progress at June 30, 2015 were expected to be complete by March 31, 2016 and were therefore closed to plant for the test period. The Delaware Division’s 2015 and 2016 Capital Budget was used to forecast retirements and construction work completed and closed to Plant in Service by March 31, 2016, the test period. Construction Work in Progress at March 31, 2016 is estimated to be zero.

Accumulated Depreciation – Test Period 13 month average accumulated depreciation balance was forecasted using the actual balances for the period March 31, 2015 to June 30, 2015. Depreciation expense for the period July 2015 through March 2016 was based on the forecasted Plant in Service balances (described above) and was added to the accumulated depreciation balances from the prior month to arrive at the forecasted month end balance.

Net Operating Income

Sales Adjustment – Test year heat sensitive firm sales levels were adjusted to reflect sales levels expected in a normal degree day year (based on a 10-year average) and were also adjusted to reflect the number of customers projected to be on the distribution system at the end of the test period. Interruptible sales levels for Propane Parity Service, No. 2 Fuel Oil Parity Service, and No. 6 Fuel Oil Parity Service were adjusted on an individual customer basis using historical sales levels.

Payroll Adjustment – Payroll Expense was annualized utilizing the projected staffing level and pay rates effective March 31, 2016.

Benefits Adjustment – Benefits expense adjustment includes the annualized expense of health, dental, and prescription claims and administration fees at the projected March 31, 2016 expense level and the March 2016 staffing level. Current rates and adjusted payroll were used to annualize life, long-term disability and accidental death and dismemberment insurance and 401(k) expenses. OPRB and 401(k) forfeitures were annualized at the March 2016 level.

Vehicle Depreciation Adjustment – Vehicle Depreciation was annualized utilizing the forecasted plant in-service at March 31, 2016 and the current depreciation rates.

Property Insurance and Injuries and Damages – Insurance expense was annualized based on the most current policy premiums.

Bad Debts – The test period expense was calculated using a five year average of bad debt write-offs as a percentage of firm revenue times the test period firm revenue.

Settlement Percentages – Department settlement percentages were adjusted to reflect the current settlement methodology and organizational structure.

Merchant Fee Adjustment – Merchant fees were removed from the test period.

Facilities Adjustment – This adjustment includes an additional rent expense based on a recent appraisal of the property used by distribution operations and for expanding into additional office space

Regulatory Commission Expense – Regulatory Commission Expense was normalized based upon a five year history, plus the five year amortization of the estimated cost of the current rate case.

Taxes Other Than Income – Payroll Related Taxes were adjusted for the change in payroll dollars. Property Taxes were adjusted by annualizing the most current property tax invoices in addition to an estimated increase related to additional plant in service. Revenue Related Taxes were adjusted to annualize the current statutory rate and apply to forecasted revenues.

Depreciation – Annual depreciation expense was calculated based on projected Plant in Service at March 31, 2016 using current depreciation rates.

Interest Synchronization – Income tax expense was adjusted to reflect ratemaking interest expense inherent in the capital structure and cost of capital.

Rate of Return

The proposed Rate of Return on common equity is 11.00%.

Summary of Significant Accounting Policies

The schedules for the Test Year ended June 30, 2015 have been prepared in accordance with generally accepted accounting principles.

The schedules for the Test Period ending March 31, 2016 have been prepared on the basis of those same generally accepted accounting principles and in accordance with those accounting policies prescribed by the regulatory commissions having jurisdiction with respect to accounting matters.

There have been no additional authoritative standards (ASC – FASB Accounting Standards Codification) issued by the Financial Accounting Standards Board since the last rate case (PSC Docket No. 07-186) that affect the test period schedules.

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Schedule A
DEFINITIONS

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Moore**
Reference: **Part A, Paragraph B.1 and B.2**

In all of the following schedules the following definitions are applicable:

Test Year: Twelve Months Ended June 30, 2015
Test Period: Twelve Months Ending March 31, 2016
including annualization adjustments

Schedule B
DATA PREVIOUSLY FILED OR NOT APPLICABLE

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Moore**
Reference: **Part A, Paragraph F.5**

| Line No. | Paragraph Designation | Description |
|----------|---------------------------------|--|
| 1 | Part II, Paragraph B.2.a.b.d.e. | Gas Supply Plan 2015 |
| 2 | | |
| 3 | Part III, Paragraph B.1 | Supporting Documents |
| 4 | | a. Annual Reports |
| 5 | | b. FERC Reports |
| 6 | | c. SEC 10-K Reports |
| 7 | | d. Proxy Statements |
| 8 | | e. Prospectus |
| 9 | | |
| 10 | Part VI, Paragraph C | Preferred Stock Calculations -- Not Applicable |

Schedule C
ELEMENTS OF RATE INCREASE

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Moore**

Elements of Proposed Increase:

| | Amount (000's) |
|---|-------------------|
| Increase due to investment in bare steel replacement | \$1,661 |
| Increase due to decline in customer fixed margin contribution - Residential | 1,357 |
| Increase in ROE requirement for gas utility investments | 902 |
| Increase due to O&M expenses | 622 |
| Other | 199 |
| Grand Total | <u>\$4,742</u> |

Schedule D
AMOUNT OF GAS - MCF SUPPLIED BY SUPPLIER

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Hardy**
Reference: **Part II, Paragraph B.2.c**

| Line No. | Month | Year | New Jersey Resources | Eastern Shore Natural Gas Co | Net Storage (Inj.) and W/d | Imbalance & Transportation Deliveries | Other | Total MCF Supplied |
|----------|-----------|------|-------------------------|---------------------------------|-------------------------------|---|--------------|-----------------------|
| 1 | January | 2015 | 734,952 | (5,479) | 155,417 | 435,384 | 18 | 1,320,292 |
| 2 | February | 2015 | 789,531 | (5,790) | 167,932 | 407,847 | (1,076) | 1,358,444 |
| 3 | March | 2015 | 525,949 | (3,888) | 130,492 | 391,143 | 6 | 1,043,702 |
| 4 | April | 2015 | 232,313 | (1,464) | (1,707) | 317,092 | 21 | 546,255 |
| 5 | May | 2015 | 93,171 | (589) | (15,395) | 278,148 | 9 | 355,344 |
| 6 | June | 2015 | 99,840 | (620) | (12,424) | 247,402 | 3 | 334,201 |
| 7 | July | 2014 | 78,011 | (1,855) | (15,772) | 248,436 | 41 | 308,861 |
| 8 | August | 2014 | 86,157 | (3,985) | (10,662) | 250,215 | 23 | 321,748 |
| 9 | September | 2014 | 106,159 | (3,797) | (11,048) | 282,522 | 21 | 373,857 |
| 10 | October | 2014 | 177,034 | (1,134) | (3,763) | 293,465 | 38 | 465,640 |
| 11 | November | 2014 | 395,005 | (4,719) | 49,323 | 352,343 | 35 | 791,987 |
| 12 | December | 2014 | 512,860 | (6,078) | 81,303 | 399,621 | 21 | 987,727 |
| 13 | Total | | <u>3,830,982</u> | <u>(39,398)</u> | <u>513,696</u> | <u>3,903,618</u> | <u>(840)</u> | <u>8,208,058</u> |

Schedule E
COMPARISON OF PRESENT AND PROPOSED REVENUES FOR TEST PERIOD

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Hardy**
Reference: **Part II, Paragraph C.1**

| Line No. | Description | (1) Present Revenues | (2) Proposed Interim Revenues | Difference | Percentage |
|----------|-------------------------|----------------------------|-------------------------------------|--------------------|--------------|
| 1 | Rate Schedule "RS-1" | \$1,171,099 | \$1,263,601 | \$92,502 | 7.90% |
| 2 | Rate Schedule "ERS-1" | \$44,488 | \$45,545 | \$1,057 | 2.38% |
| 3 | Rate Schedule "RS-2" | \$30,756,946 | \$32,301,107 | \$1,544,161 | 5.02% |
| 4 | Rate Schedule "ERS-2" | \$471,974 | \$481,711 | \$9,737 | 2.06% |
| 5 | Rate Schedule "GS" | \$3,287,520 | \$3,449,739 | \$162,219 | 4.93% |
| 6 | Rate Schedule "EGS" | \$20,383 | \$20,745 | \$362 | 1.77% |
| 7 | Rate Schedule "MVS" | \$2,815,416 | \$2,904,396 | \$88,980 | 3.16% |
| 8 | Rate Schedule "EMVS" | \$10,574 | \$10,876 | \$302 | 2.86% |
| 9 | Rate Schedule "LVS" | \$3,709,020 | \$3,907,143 | \$198,123 | 5.34% |
| 10 | Rate Schedule "HLFS" | \$3,976,147 | \$4,375,654 | \$399,507 | 10.05% |
| 11 | Rate Schedule "NGV" | \$2,606 | \$2,606 | \$0 | 0.00% |
| 12 | Rate Schedule "GLR" | \$885 | \$885 | \$0 | 0.00% |
| 13 | Rate Schedule "NCR" | \$149,843 | \$150,947 | \$1,104 | 0.74% |
| 14 | Rate Schedule "ITS" | \$162,637 | \$162,637 | \$0 | 0.00% |
| 15 | Subtotal Revenue | <u>\$46,579,538</u> | <u>\$49,077,591</u> | <u>\$2,498,053</u> | <u>5.36%</u> |
| 16 | Other Revenue | \$575,457 | \$575,457 | \$0 | 0.00% |
| 17 | Miscellaneous Fees | \$455,585 | \$455,585 | \$0 | 0.00% |
| 18 | Total Operating Revenue | <u>\$47,610,580</u> | <u>\$50,108,633</u> | <u>\$2,498,053</u> | <u>5.25%</u> |

1/ At Current Rates

2/ Proposed Interim Revenues are based on the proposed interim rates which are designed on the \$2,500,000 increase.

Schedule E
COMPARISON OF PRESENT AND PROPOSED REVENUES FOR TEST PERIOD

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Hardy**
Reference: **Part II, Paragraph C.1**

| Line No. | Description | (1) Present Revenues | (2) Full Proposed Revenues | Difference | Percentage |
|----------|-------------------------|----------------------------|----------------------------------|--------------------|---------------|
| 1 | Rate Schedule "RS-1" | \$1,171,099 | \$1,530,420 | \$359,321 | 30.68% |
| 2 | Rate Schedule "ERS-1" | \$44,488 | \$49,495 | \$5,007 | 11.25% |
| 3 | Rate Schedule "RS-2" | \$30,756,946 | \$34,547,964 | \$3,791,018 | 12.33% |
| 4 | Rate Schedule "ERS-2" | \$471,974 | \$495,376 | \$23,402 | 4.96% |
| 5 | Rate Schedule "GS" | \$3,287,520 | \$3,725,462 | \$437,942 | 13.32% |
| 6 | Rate Schedule "EGS" | \$20,383 | \$20,934 | \$551 | 2.70% |
| 7 | Rate Schedule "MVS" | \$2,815,416 | \$2,938,756 | \$123,340 | 4.38% |
| 8 | Rate Schedule "EMVS" | \$10,574 | \$10,982 | \$408 | 3.86% |
| 9 | Rate Schedule "LVS" | \$3,709,020 | \$3,706,820 | (\$2,200) | -0.06% |
| 10 | Rate Schedule "HLFS" | \$3,976,147 | \$3,971,873 | (\$4,274) | -0.11% |
| 11 | Rate Schedule "NGV" | \$2,606 | \$2,606 | \$0 | 0.00% |
| 12 | Rate Schedule "GLR" | \$885 | \$1,183 | \$298 | 33.67% |
| 13 | Rate Schedule "NCR" | \$149,843 | \$156,844 | \$7,001 | 4.67% |
| 14 | Rate Schedule "ITS" | \$162,637 | \$162,637 | \$0 | 0.00% |
| 15 | Subtotal Revenue | <u>\$46,579,538</u> | <u>\$51,321,352</u> | <u>\$4,741,814</u> | <u>10.18%</u> |
| 16 | Other Revenue | \$575,457 | \$575,457 | \$0 | 0.00% |
| 17 | Miscellaneous Fees | \$455,585 | \$455,585 | \$0 | N/A |
| 18 | Total Operating Revenue | <u>\$47,610,580</u> | <u>\$52,352,394</u> | <u>\$4,741,814</u> | <u>9.96%</u> |

1/ At Current Rates

2/ Proposed Revenues are based on the full proposed rates which are designed on the \$4,741,823 increase.

Schedule No. 1
OVERALL FINANCIAL SUMMARY

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Moore**

| Line No. | Description | Test Year Twelve Months Ended <u>June 30, 2015</u> | | Test Period Twelve Months Ending <u>March 31, 2016</u> | |
|----------|---------------------------------------|--|--------------|--|--------------|
| | | Ref Sched | Amount \$ | Ref Sched | Amount \$ |
| 1 | Rate Base | 2 | \$65,854,598 | 2 | \$70,938,749 |
| 2 | Net Operating Income | 3 | \$4,084,055 | 3 | \$3,267,298 |
| 3 | Earned Rate of Return (L2 / L1) | | 6.20% | | 4.61% |
| 4 | Proposed Fair Rate of Return | 4 | 8.55% | 4 | 8.55% |
| 5 | Required Operating Income (L1 x L4) | | \$5,630,568 | | \$6,065,262 |
| 6 | Operating Income Deficiency (L5 - L2) | | \$1,546,513 | | \$2,797,964 |
| 7 | Gross Revenue Conversion Factor | 5 | 1.69474 | 5 | 1.69474 |
| 8 | Revenue Deficiency | | \$2,620,937 | | \$4,741,823 |
| 9 | Revenue Increase Requested | | 4.00% | | 9.96% |

Schedule No. 2
JURISDICTIONAL RATE BASE SUMMARY

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **M. Everngam**

| Line No. | Description | Test Year Twelve Months Ended <u>June 30, 2015</u> | Utility Proposed Test Period Twelve Months Ending <u>March 31, 2016</u> | |
|----------|--|--|--|----------------------------|
| | | | Ref Sched | Amount \$ |
| 1 | Gas Plant In Service | \$119,853,062 | 2-A | \$128,018,672 |
| 2 | Intangible Assets | 1,256,046 | 2-B | 1,256,046 |
| | Less: | | | |
| 3 | Accumulated Depreciation | 34,695,018 | 2-C | 35,983,960 |
| 4 | Net Plant | <u>\$86,414,090</u> | | <u>\$93,290,758</u> |
| | Less: | | | |
| 5 | Accumulated Deferred Income Taxes | \$21,525,575 | 2-D | \$22,938,550 |
| 6 | Customer Deposits | 2,573,682 | 2-F | 1,698,560 |
| 7 | Customer Advances for Construction | 144,774 | 2-C-1 | 27,692 |
| 8 | Unamortized Investment Tax Credit | 0 | 2-D | 0 |
| 9 | Operating Reserves | 1,512,396 | | 1,547,011 |
| | Plus: | | | |
| 10 | Material and Supplies | 2,528,176 | 2-E-1 | 2,168,597 |
| 11 | Investor Supplied Cash Working Capital | 1,028,566 | 2-E-2 | 1,028,566 |
| 12 | Construction Work In Progress | 1,640,192 | | 662,641 |
| 13 | Total Claimed Rate Base | <u><u>\$65,854,598</u></u> | | <u><u>\$70,938,749</u></u> |

Schedule No. 2-A
USED AND USEFUL UTILITY PLANT

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**

Docket No.: **15-**

Witness: **M. Everngam**

| Test Year | Utility Plant In Service | CWIP | Total Plant |
|----------------|-----------------------------|-----------|----------------|
| June - 2014 | 115,235,718 | 2,584,673 | 117,820,391 |
| July | 115,814,712 | 2,710,162 | 118,524,874 |
| August | 116,802,653 | 2,536,361 | 119,339,014 |
| September | 117,523,940 | 2,799,709 | 120,323,649 |
| October | 118,508,966 | 2,799,300 | 121,308,266 |
| November | 119,003,753 | 3,177,753 | 122,181,506 |
| December | 120,522,445 | 194,311 | 120,716,756 |
| January - 2015 | 120,681,260 | 781,538 | 121,462,798 |
| February | 121,571,841 | 363,853 | 121,935,694 |
| March | 122,226,129 | 295,676 | 122,521,805 |
| April | 122,753,957 | 893,574 | 123,647,531 |
| May | 123,394,637 | 1,079,957 | 124,474,594 |
| June | 124,049,797 | 1,105,630 | 125,155,427 |

| | | | |
|------------------|----------------------|--------------------|----------------------|
| 13 Month Average | <u>\$119,853,062</u> | <u>\$1,640,192</u> | <u>\$121,493,254</u> |
|------------------|----------------------|--------------------|----------------------|

| Test Period | Utility Plant in Service | CWIP | Total Plant |
|--------------|--------------------------------|-----------|----------------|
| March - 2015 | 122,226,129 | 295,676 | 122,521,805 |
| April | 122,753,957 | 893,574 | 123,647,531 |
| May | 123,394,637 | 1,079,957 | 124,474,594 |
| June | 124,049,797 | 1,105,630 | 125,155,427 |
| July | 125,307,369 | 1,892,492 | 127,199,861 |
| August | 126,103,565 | 1,862,070 | 127,965,635 |
| September | 128,372,367 | 609,620 | 128,981,987 |
| October | 129,254,564 | 437,660 | 129,692,224 |
| November | 129,974,729 | 437,660 | 130,412,389 |
| December | 131,179,782 | 0 | 131,179,782 |
| January | 132,598,938 | 0 | 132,598,938 |
| February | 133,985,684 | 0 | 133,985,684 |
| March | 135,041,218 | 0 | 135,041,218 |

| | | | |
|------------------|----------------------|------------------|----------------------|
| 13 Month Average | <u>\$128,018,672</u> | <u>\$662,641</u> | <u>\$128,681,313</u> |
|------------------|----------------------|------------------|----------------------|

| | | | |
|---------------------------|----------|----------|----------|
| Terminal Value Adjustment | <u>0</u> | <u>0</u> | <u>0</u> |
|---------------------------|----------|----------|----------|

| | | | |
|---------------------------|----------------------|------------------|----------------------|
| Adjusted 13 Month Average | <u>\$128,018,672</u> | <u>\$662,641</u> | <u>\$128,681,313</u> |
|---------------------------|----------------------|------------------|----------------------|

Schedule No. 2-B
INTANGIBLE ASSETS CLAIMED IN RATE BASE

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **M. Everngam**

| Line No. | Account No. | Description and Location of Asset | Test Year Ended June 30, 2015 | Test Period Ending March 31, 2016 |
|----------|-------------|-----------------------------------|----------------------------------|--------------------------------------|
| | | Intangible Plant in Service | | |
| 1 | 301 | Organization Expense | \$6,038 | \$6,038 |
| 2 | 302 | Franchise and Consents | 248 | 248 |
| 3 | 303 | Miscellaneous Intangible Plant | 1,249,760 | 1,249,760 |
| 4 | | Total Intangible Property | <u>\$1,256,046</u> | <u>\$1,256,046</u> |

Schedule No. 2-C
ACCUMULATED DEPRECIATION

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**

Docket No.: **15-**

Witness: **M. Everngam**

| <u>Actuals</u> | <u>Test Year</u> |
|----------------|----------------------|
| June - 2014 | (34,020,331) |
| July | (34,157,583) |
| August | (34,370,629) |
| September | (34,489,559) |
| October | (34,734,818) |
| November | (34,921,072) |
| December | (34,377,743) |
| January - 2015 | (34,542,587) |
| February | (34,714,990) |
| March | (34,869,271) |
| April | (35,080,412) |
| May | (35,285,246) |
| June | (35,470,995) |

| | |
|------------------|-----------------------|
| 13 Month Average | <u>(\$34,695,018)</u> |
|------------------|-----------------------|

| <u>Test Period</u> | <u>Utility Plant in Service</u> |
|--------------------|---|
| March - 2015 | (34,869,271) |
| April | (35,080,412) |
| May | (35,285,246) |
| June | (35,470,995) |
| July | (35,629,428) |
| August | (35,752,981) |
| September | (36,003,961) |
| October | (36,148,950) |
| November | (36,339,093) |
| December | (36,522,521) |
| January - 2016 | (36,708,021) |
| February | (36,895,553) |
| March | (37,085,051) |

| | |
|------------------|-----------------------|
| 13 Month Average | <u>(\$35,983,960)</u> |
|------------------|-----------------------|

| | |
|---------------------------|----------|
| Terminal Value Adjustment | <u>0</u> |
|---------------------------|----------|

| | |
|---------------------------|-----------------------|
| Adjusted 13 Month Average | <u>(\$35,983,960)</u> |
|---------------------------|-----------------------|

Schedule No. 2-C-1
CUSTOMER ADVANCES- CAIC 2230-2520

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **M. Everngam**

| Test Year | | Test Year Ended June 30 2015 |
|------------------|------|------------------------------------|
| June | 2014 | 184,840 |
| July | | 184,840 |
| August | | 184,840 |
| September | | 184,840 |
| October | | 181,349 |
| November | | 181,349 |
| December | | 180,000 |
| January | 2015 | 120,000 |
| February | | 120,000 |
| March | | 120,000 |
| April | | 120,000 |
| May | | 120,000 |
| June | | 0 |
| 13 Month Average | | <u>144,774</u> |

| Test Period | | Test Period Ended March 31, 2016 |
|------------------|------|--|
| March | 2015 | 120,000 |
| April | | 120,000 |
| May | | 120,000 |
| June | | 0 |
| July | | 0 |
| August | | 0 |
| September | | 0 |
| October | | 0 |
| November | | 0 |
| December | | 0 |
| January | 2016 | 0 |
| February | | 0 |
| March | | 0 |
| 13 Month Average | | <u>27,692</u> |

Schedule No. 2-D
ACCUMULATED DEFERRED INCOME TAXES

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **M. Everngam**

| Line No. | Description of Deferral | Balance Beginning of Test Period March 31, 2015 | Balance Test Period Ending March 31, 2016 | Test Period Average Balance |
|----------|--|---|---|--------------------------------|
| 1 | Accelerated Tax Depreciation | (\$23,436,579) | (\$23,943,148) | (23,689,863) |
| 2 | Unrecovered Purchase Gas Costs | n/a | n/a | n/a |
| 3 | Bad Debts | 47,610 | 47,610 | 47,610 |
| 4 | Capitalized Interest, Overhead & AFUDC | 177,706 | 175,397 | 176,551 |
| 5 | Environmental Costs | n/a | n/a | n/a |
| 6 | Pension | 196,895 | 196,895 | 196,895 |
| 7 | Other Post Retirement Benefits | 210,778 | 210,778 | 210,778 |
| 8 | Real Property Taxes | (202,632) | (202,632) | (202,632) |
| | Repairs | 0 | (195,897) | (97,949) |
| 9 | Self-Insurance | 214,028 | 214,028 | 214,028 |
| 10 | Insurance reserves | (60,896) | (60,896) | (60,896) |
| 11 | Incentive compensation | 186,781 | 228,780 | 207,781 |
| 12 | Regulatory Asset | 60,826 | 57,469 | 59,148 |
| 13 | Total | (\$22,605,483) | (\$23,271,616) | (\$22,938,550) |
| 14 | Unamortized Investment Tax Credits | \$0 | \$0 | |

Schedule No. 2-D
ACCUMULATED DEFERRED INCOME TAXES

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **M. Everngam**

| Line No. | Description of Deferral | Balance Beginning of Test Year June 30, 2014 | Balance Test Year Ending June 30, 2015 | Test Year Average Balance |
|----------|--|--|--|------------------------------|
| 1 | Accelerated Tax Depreciation | (21,144,058) | (23,556,467) | (22,350,263) |
| 2 | Unrecovered Purchase Gas Costs | n/a | n/a | n/a |
| 3 | Bad Debts | 85,308 | \$47,610 | \$66,459 |
| 4 | Capitalized Interest, Overhead & AFUDC | 181,054 | \$177,320 | \$179,187 |
| 5 | Environmental Costs | n/a | n/a | n/a |
| 6 | Pension | 190,812 | \$196,895 | \$193,854 |
| 7 | Other Post Retirement Benefits | 219,024 | \$210,778 | \$214,901 |
| 8 | Real Property Taxes | (194,237) | (\$202,632) | (\$198,435) |
| 9 | Self-Insurance | 179,611 | \$214,028 | \$196,820 |
| 10 | Insurance reserves | (61,188) | (\$60,896) | (\$61,042) |
| 11 | Incentive compensation | 141,777 | \$200,781 | \$171,279 |
| 12 | Regulatory Asset | 63,344 | \$59,987 | \$61,666 |
| 13 | Total | <u>(\$20,338,553)</u> | <u>(\$22,712,596)</u> | <u>(\$21,525,575)</u> |
| 14 | Unamortized Investment Tax Credits | <u>\$0</u> | <u>\$0</u> | |

Schedule No. 2-E
MATERIALS AND SUPPLIES

Delaware Public Service Commission

Company:
Docket No.:
Witness:

Chesapeake Utilities Corporation
15-
Everngam

| <u>Line</u> | <u>Working Capital Component</u> | <u>Test Year End June 30 2015</u> | <u>Test Period Ending March 31 2016</u> |
|-------------|--|---------------------------------------|---|
| 1 | Natural Gas in Storage | \$1,903,616 | \$1,538,611 |
| 2 | Propane in Storage | 300,563 | 264,685 |
| 3 | Plant Materials and Operating Supplies | 323,997 | 365,301 |
| 4 | Total Materials and Supplies | <u>\$2,528,176</u> | <u>\$2,168,597</u> |

Schedule No. 2-E-1a
MATERIALS AND SUPPLIES

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Everngam**

| Test Period | | Total Materials and Supplies | Natural Gas in Storage | Propane in Storage | Plant Materials and Supplies |
|------------------|------|---------------------------------|---------------------------|-----------------------|---------------------------------|
| March | 2015 | \$1,034,781 | \$470,614 | \$189,006 | \$375,161 |
| April | | 1,317,862 | 775,652 | 189,006 | 353,204 |
| May | | 1,774,245 | 1,155,750 | 189,006 | 429,489 |
| June | | 2,040,640 | 1,463,457 | 189,006 | 388,177 |
| July | | 2,296,905 | 1,765,217 | 241,886 | 289,802 |
| August | | 2,698,102 | 2,014,911 | 345,940 | 337,251 |
| September | | 3,024,647 | 2,262,208 | 377,972 | 384,467 |
| October | | 3,161,594 | 2,401,077 | 395,661 | 364,856 |
| November | | 2,168,597 | 1,538,611 | 264,685 | 365,301 |
| December | | 2,168,597 | 1,538,611 | 264,685 | 365,301 |
| January | 2016 | 2,168,597 | 1,538,611 | 264,685 | 365,301 |
| February | | 2,168,597 | 1,538,611 | 264,685 | 365,301 |
| March | | 2,168,597 | 1,538,611 | 264,685 | 365,301 |
| 13 Month Average | | <u>\$2,168,597</u> | <u>\$1,538,611</u> | <u>\$264,685</u> | <u>\$365,301</u> |

Schedule No. 2-E-1b
MATERIALS AND SUPPLIES

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Everngam**

| Test Year | | Total Materials and Supplies | Natural Gas in Storage | Propane in Storage | Plant Materials and Supplies |
|------------------|------|---------------------------------|---------------------------|-----------------------|---------------------------------|
| June | 2014 | \$2,341,149 | \$1,798,237 | \$254,785 | \$288,127 |
| July | | 2,873,106 | 2,229,995 | 315,078 | 328,033 |
| August | | 3,209,336 | 2,605,207 | 315,078 | 289,051 |
| September | | 3,566,380 | 2,922,736 | 386,724 | 256,920 |
| October | | 3,834,831 | 3,136,637 | 418,714 | 279,480 |
| November | | 3,537,441 | 2,846,453 | 413,443 | 277,545 |
| December | | 3,155,716 | 2,474,034 | 414,567 | 267,115 |
| January | 2015 | 2,531,777 | 1,800,741 | 402,123 | 328,913 |
| February | | 1,649,023 | 1,067,490 | 230,786 | 350,747 |
| March | | 1,034,781 | 470,614 | 189,006 | 375,161 |
| April | | 1,317,862 | 775,652 | 189,006 | 353,204 |
| May | | 1,774,245 | 1,155,750 | 189,006 | 429,489 |
| June | | 2,040,640 | 1,463,457 | 189,006 | 388,177 |
| 13 Month Average | | <u>\$2,528,176</u> | <u>\$1,903,616</u> | <u>\$300,563</u> | <u>\$323,997</u> |

Schedule No. 2-E-2
INVESTOR SUPPLIED CASH WORKING CAPITAL

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **M. Everngam**

| Line No. | Working Capital Component - Test Period | Cash Disbursements Test Year | Lag Days | Dollar Days | Weighted Net Lag Days |
|----------|---|------------------------------|---------------|---------------------|---------------------------|
| 1 | Total Revenue Collection Lag | | | | 32.82 |
| | Cash Disbursements for Operating Expenses Lag: | | | | |
| 2 | Weekly Payroll | 3,035,144 | 10.50 | 31,869,012 | |
| 3 | Bi-Weekly Payroll | 3,754,447 | 7.00 | 26,281,129 | |
| 4 | Semi-Monthly Payroll | 531,049 | 7.60 | 4,035,973 | |
| 5 | Other Operations & Maintenance Costs - DNG | 4,384,061 | 24.29 | 106,488,847 | |
| 6 | Other Operations & Maintenance Costs - Corporate | 2,057,320 | 13.62 | 28,020,704 | |
| 7 | Taxes Other than Income | <u>2,020,339</u> | <u>-26.80</u> | <u>(54,145,085)</u> | |
| 8 | | \$15,782,361 | | \$142,550,580 | <u>9.03</u> |
| 9 | Weighted Net Lag Days | | | | 23.79 |
| 10 | Average Daily Cash Disbursement | | | | <u>\$43,239</u> |
| 11 | Cash Working Capital Requirement | | | | <u><u>\$1,028,566</u></u> |

Schedule No. 2-F
OTHER ELEMENTS OF RATE BASE

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **M. Everngam**

| <u>Test Period</u> | | <u>Customer Deposits</u> | <u>Abandoned Property Liability</u> | <u>Total Other Elements of Rate Base</u> |
|--------------------|------|------------------------------|---|--|
| March | 2015 | 1,729,629 | 11,279 | \$1,740,908 |
| April | | 1,712,097 | 11,279 | 1,723,376 |
| May | | 1,652,450 | 11,279 | 1,663,729 |
| June | | 1,637,551 | 11,279 | 1,648,830 |
| July | | 1,639,234 | 11,279 | 1,650,513 |
| August | | 1,634,084 | 11,279 | 1,645,363 |
| September | | 1,645,400 | 11,279 | 1,656,679 |
| October | | 1,692,337 | 11,279 | 1,703,616 |
| November | | 1,700,957 | 11,279 | 1,712,236 |
| December | | 1,709,621 | 11,279 | 1,720,900 |
| January | 2016 | 1,718,330 | 11,279 | 1,729,609 |
| February | | 1,727,082 | 11,279 | 1,738,361 |
| March | | 1,735,879 | 11,279 | 1,747,158 |
| 13 Month Average | | <u>\$1,687,281</u> | <u>\$11,279</u> | <u>\$1,698,560</u> |

Schedule No. 2-F-1
OTHER ELEMENTS OF RATE BASE

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **M. Everngam**

| <u>Test Year</u> | | <u>Customer Deposits</u> | <u>Abandoned Property Liability</u> | <u>Total Other Elements of Rate Base</u> |
|------------------|------|------------------------------|---|--|
| June | 2014 | \$2,734,486 | \$22,161 | \$2,756,647 |
| July | | 2,724,704 | 22,161 | 2,746,865 |
| August | | 2,742,622 | 22,161 | 2,764,783 |
| September | | 2,760,364 | 22,161 | 2,782,525 |
| October | | 2,806,427 | 22,161 | 2,828,588 |
| November | | 2,851,876 | 22,161 | 2,874,037 |
| December | | 2,883,788 | 22,161 | 2,905,949 |
| January | 2015 | 2,897,307 | 20,347 | 2,917,654 |
| February | | 2,911,628 | 20,347 | 2,931,975 |
| March | | 2,901,629 | 11,279 | 2,912,908 |
| April | | 1,712,097 | 11,279 | 1,723,376 |
| May | | 1,652,450 | 11,279 | 1,663,729 |
| June | | 1,637,551 | 11,279 | 1,648,830 |
| 13 Month Average | | <u>\$2,555,148</u> | <u>\$18,534</u> | <u>\$2,573,682</u> |

Schedule No. 3
NET OPERATING INCOME SUMMARY

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Moore**

| Line No. | Description | Test Year Ended <u>June 30, 2015</u> | | Test Period Ending <u>March 31, 2016</u> (at current rates) | |
|----------|---------------------------------|---|---------------------------|---|---------------------------|
| | | Ref Sched | Amount \$ | Ref Sched | Amount \$ |
| 1 | Operating Revenues | 3-A | \$65,518,579 | 3-A | \$47,610,580 |
| 2 | Operating Expenses | 3-B | 57,637,753 | 3-B | 40,888,404 |
| 3 | Interest on Customer Deposits | | 74,347 | | 74,347 |
| 4 | Taxes Other Than Income | 3-I | 1,807,907 | 3-I | 2,039,884 |
| 5 | Net Operating Income | | <u>\$5,998,572</u> | | <u>\$4,607,945</u> |
| 6 | Total Operating Taxes | 3-I | \$1,914,520 | 3-I | \$1,340,647 |
| 7 | Net Operating Income | | <u>\$4,084,052</u> | | <u>\$3,267,298</u> |
| 8 | AFUDC | | \$0 | | \$0 |
| 9 | Net Income Available for Return | | <u><u>\$4,084,052</u></u> | | <u><u>\$3,267,298</u></u> |

Schedule No. 3-A
OPERATING REVENUES

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Hardy**

| Line No. | Description | Test Year Ended June 30, 2015 | Test Period Ending March 31, 2016 |
|----------|-------------------------|-------------------------------------|---|
| 1 | Rate Schedule "RS-1" | \$1,836,611 | \$1,171,099 |
| 2 | Rate Schedule "ERS-1" | \$56,113 | \$44,488 |
| 3 | Rate Schedule "RS-2" | \$43,108,633 | \$30,756,946 |
| 4 | Rate Schedule "ERS-2" | \$309,670 | \$471,974 |
| 5 | Rate Schedule "GS" | \$4,856,770 | \$3,287,520 |
| 6 | Rate Schedule "EGS" | \$28,625 | \$20,383 |
| 7 | Rate Schedule "MVS" | \$4,082,408 | \$2,815,416 |
| 8 | Rate Schedule "EMVS" | \$20,929 | \$10,574 |
| 9 | Rate Schedule "LVS" | \$4,322,408 | \$3,709,020 |
| 10 | Rate Schedule "HLFS" | \$5,075,066 | \$3,976,147 |
| 11 | Rate Schedule "GLR" | \$1,217 | \$885 |
| 12 | Rate Schedule "NCR" | \$969,548 | \$149,843 |
| 13 | Rate Schedule "ITS" | \$162,637 | \$162,637 |
| 14 | Rate Schedule "NGV" | \$3,000 | \$2,606 |
| 15 | Subtotal Revenue | <u>\$64,833,635</u> | <u>\$46,579,538</u> |
| 16 | Other Revenue | \$684,944 | \$1,031,042 |
| 17 | Total Operating Revenue | <u>\$65,518,579</u> | <u>\$47,610,580</u> |

Schedule No. 3-A-1
SUMMARY OF ADJUSTMENTS TO TEST YEAR REVENUES

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Hardy**

| Line No. | Description | Test Year Ended June 30, 2015 | Test Year Adjustments | Temperature Normalization | Customer Growth | Other Adjustments and Annualizations (1) | Sub-total | Test Period Ending March 31, 2016 |
|----------|-------------------------|-------------------------------------|--------------------------|------------------------------|--------------------|--|-----------------------|---|
| 1 | Rate Schedule "RS-1" | \$1,836,611 | (\$266,993) | (\$77,677) | \$0 | (\$320,842) | (\$665,512) | \$1,171,099 |
| 2 | Rate Schedule "ERS-1" | \$56,113 | (\$3,092) | \$0 | \$0 | (\$8,533) | (\$11,625) | \$44,488 |
| 3 | Rate Schedule "RS-2" | \$43,108,633 | \$119,042 | (\$2,219,992) | \$315,870 | (\$10,566,607) | (\$12,351,687) | \$30,756,946 |
| 4 | Rate Schedule "ERS-2" | \$309,670 | \$317 | (\$13,071) | \$234,839 | (\$59,781) | \$162,304 | \$471,974 |
| 5 | Rate Schedule "GS" | \$4,856,770 | (\$148,638) | (\$286,376) | \$74,839 | (\$1,209,075) | (\$1,569,250) | \$3,287,520 |
| 6 | Rate Schedule "EGS" | \$28,625 | (\$1,692) | \$0 | (\$1,144) | (\$5,406) | (\$8,242) | \$20,383 |
| 7 | Rate Schedule "MVS" | \$4,082,408 | \$111,093 | (\$229,226) | \$11,449 | (\$1,160,308) | (\$1,266,992) | \$2,815,416 |
| 8 | Rate Schedule "EMVS" | \$20,929 | (\$6,926) | \$0 | \$953 | (\$4,382) | (\$10,355) | \$10,574 |
| 9 | Rate Schedule "LVS" | \$4,322,408 | \$312,757 | (\$98,477) | \$82,041 | (\$909,709) | (\$613,388) | \$3,709,020 |
| 10 | Rate Schedule "HLFS" | \$5,075,066 | (\$89,267) | (\$15,755) | \$34,511 | (\$1,028,408) | (\$1,098,919) | \$3,976,147 |
| 11 | Rate Schedule "GLR" | \$1,217 | \$0 | \$0 | \$0 | (\$332) | (\$332) | \$885 |
| 12 | Rate Schedule "NCR" | \$969,548 | (\$931,721) | \$0 | \$22,438 | \$89,578 | (\$819,705) | \$149,843 |
| 13 | Rate Schedule "ITS" | \$162,637 | \$0 | \$0 | \$0 | \$0 | \$0 | \$162,637 |
| 14 | Rate Schedule "NGV" | \$3,000 | \$0 | \$0 | \$0 | (\$394) | (\$394) | \$2,606 |
| 15 | Subtotal Revenue | <u>\$64,833,635</u> | <u>(\$905,120)</u> | <u>(\$2,940,574)</u> | <u>\$775,796</u> | <u>(\$15,184,199)</u> | <u>(\$18,254,097)</u> | <u>\$46,579,538</u> |
| 16 | Other Revenue | \$684,944 | \$0 | \$0 | \$0 | \$346,098 | \$346,098 | \$1,031,042 |
| 17 | Total Operating Revenue | <u>\$65,518,579</u> | <u>(\$905,120)</u> | <u>(\$2,940,574)</u> | <u>\$775,796</u> | <u>(\$14,838,101)</u> | <u>(\$17,907,999)</u> | <u>\$47,610,580</u> |

Schedule No. 3-A-2
SUMMARY OF ADJUSTMENTS TO TEST YEAR SALES (MCF)

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Hardy**

| Line No. | Firm Rate Classes | Test Year Ended June 30, 2015 | Test Year Adjustments | Temperature Normalization | Customer Growth | Other Adjustments and Annualizations | Sub-total | Test Period Ending March 31, 2016 |
|----------|-----------------------|-------------------------------------|--------------------------|------------------------------|--------------------|---|------------------|---|
| 1 | Rate Schedule "RS-1" | 82,376 | (21,010) | (6,207) | 0 | (6) | (27,223) | 55,153 |
| 2 | Rate Schedule "ERS-1" | 2,235 | (189) | 0 | 0 | 1 | (188) | 2,047 |
| 3 | Rate Schedule "RS-2" | 2,720,560 | 21,010 | (254,913) | 20,184 | (4) | (213,723) | 2,506,837 |
| 4 | Rate Schedule "ERS-2" | 15,619 | 189 | (1,262) | 15,769 | 2 | 14,698 | 30,317 |
| 5 | Rate Schedule "GS" | 322,018 | (17,481) | (34,006) | 6,000 | (8) | (45,495) | 276,523 |
| 6 | Rate Schedule "EGS" | 1,493 | 0 | 0 | (93) | (1) | (94) | 1,399 |
| 7 | Rate Schedule "MVS" | 367,958 | 9,506 | (28,416) | 568 | 840 | (17,502) | 350,456 |
| 8 | Rate Schedule "EMVS" | 2,408 | 0 | 0 | 0 | 0 | 0 | 2,408 |
| 9 | Rate Schedule "LVS" | 1,266,457 | 397,693 | (13,070) | 8,958 | (49,041) | 344,540 | 1,610,997 |
| 10 | Rate Schedule "HLFS" | 2,873,205 | (86,263) | (2,740) | 5,808 | 38,472 | (44,723) | 2,828,482 |
| 11 | Rate Schedule "GLR" | 84 | 0 | 0 | 0 | 0 | 0 | 84 |
| 12 | Rate Schedule "NCR" | 305,471 | (303,456) | 0 | 5,417 | 18,943 | (279,096) | 26,375 |
| 13 | Rate Schedule "ITS" | 72,699 | 0 | 0 | 0 | 0 | 0 | 72,699 |
| 14 | Rate Schedule "NGV" | 124 | 0 | 0 | 0 | 4 | 4 | 128 |
| 15 | Total | <u>8,032,707</u> | <u>(1)</u> | <u>(340,614)</u> | <u>62,611</u> | <u>9,202</u> | <u>(268,802)</u> | <u>7,763,905</u> |

Delaware Public Service Commission

Chesapeake Utilities Corporation
15-
Hardy

[illegible]

Schedule No. 3-B
OPERATING EXPENSES

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **J. Weiss**

| Line No. | Description | Test Year Ended June 30, 2015 | Test Period Ending March 31, 2016 |
|--|--|-------------------------------------|---|
| <u>Operations and Maintenance Expenses</u> | | | |
| <u>Operations</u> | | | |
| 1 | Manufactured Gas Production | \$60,322 | \$ 60,684.40 |
| 2 | Purchased Gas | 41,529,258 | 24,644,678 |
| 3 | Distribution Expense | 1,472,340 | 1,461,299 |
| 4 | Customer Accounting Expense | 2,285,233 | 2,436,282 |
| 5 | Sales Expense | 747,206 | 936,569 |
| 6 | Administrative and General Expense | 8,306,308 | 7,856,967 |
| 7 | Total Operations Expense | <u>\$54,400,667</u> | <u>\$37,396,479</u> |
| <u>Maintenance</u> | | | |
| 8 | Manufactured Gas Production | \$89,616 | \$ 47,461.16 |
| 9 | Distribution Expense | 605,583 | 670,556 |
| 10 | Administrative and General Expense | 139,056 | 119,858 |
| 11 | Total Maintenance Expense | <u>\$834,255</u> | <u>\$837,875</u> |
| 12 | Total Operations and Maintenance Expense | \$55,234,922 | \$38,234,354 |
| 13 | Depreciation and Amortization Expense | 2,402,831 | 2,654,050 |
| 14 | Total Operating Expense | <u>\$57,637,753</u> | <u>\$40,888,404</u> |

Schedule No. 3-C
PAYROLL COSTS

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Weiss**

| Line No. | Distribution | Test Year Ended June 30, 2015 | | | | Test Period Ending March 31, 2016 | | | |
|----------|--|-------------------------------|-----------|--------------------------|------------------------|-----------------------------------|-----------|--------------------------|------------------------|
| | | Payroll Costs | Benefits | Payroll Related Taxes | Total Payroll Costs | Payroll Costs | Benefits | Payroll Related Taxes | Total Payroll Costs |
| 1 | Delaware Division Payroll | 7,289,262 | 1,660,821 | 507,116 | \$9,457,199 | 8,131,414 | 1,764,395 | 592,404 | \$10,488,213 |
| | Less | | | | | | | | |
| 2 | Amounts Charged to Construction | 1,718,112 | 415,388 | 129,992 | \$2,263,492 | 1,636,323 | 363,646 | 128,263 | \$2,128,232 |
| 3 | Total Delaware Expense Portion (1 - 2) | 5,571,150 | 1,245,433 | 377,124 | \$7,193,707 | 6,495,091 | 1,400,749 | 464,141 | \$8,359,981 |

Schedule No. 3-D
EXECUTIVE COMPENSATION (1)

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Weiss / Dewey**

| Line No. | Name and Title | Annual Salary (1) | Stock Awards, Bonus, and Non- Equity Incentive Plan Compensation (1) | All Other Compensation (1) | Total Compensation (1) |
|----------|---|--------------------|--|-------------------------------|---------------------------|
| 1 | Michael P. McMasters, Chief Executive Officer, President and Director | \$466,250 | \$783,606 | \$175,466 | \$1,425,322 |
| 2 | Stephen C. Thompson, Senior Vice President | 327,500 | 351,678 | 190,465 | \$869,643 |
| 3 | Beth W. Cooper, Senior Vice President and Chief Financial Officer | 293,625 | 318,732 | 66,181 | \$678,538 |
| 4 | Elaine B. Bittner, Senior Vice President | 253,750 | 271,144 | 30,632 | \$555,526 |
| 5 | Jeffry M Householder, President of Florida Public Utilities Company | 279,711 | 283,080 | 38,055 | \$600,846 |
| 6 | Total Executive Compensation | <u>\$1,620,836</u> | <u>\$2,008,240</u> | <u>\$500,799</u> | <u>\$4,129,875</u> |

Notes: (1) 2014 Summary, per the Chesapeake Utilities Corporation 2015 Proxy Statement

| Line No. | Name and Title | Annual Salary (2) | Stock Awards, Bonus, and Non- Equity Incentive Plan Compensation (2) | All Other Compensation (2) (3) | Total Compensation (2) |
|----------|---|-------------------|--|--------------------------------------|---------------------------|
| 7 | Michael P. McMasters, Chief Executive Officer, President and Director | \$55,548 | \$84,257 | \$18,934 | \$158,739 |
| 8 | Stephen C. Thompson, Senior Vice President | 120,349 | 117,644 | 48,785 | \$286,778 |
| 9 | Beth W. Cooper, Senior Vice President and Chief Financial Officer | 32,917 | 32,882 | 2,043 | \$67,842 |
| 10 | Elaine B. Bittner, Senior Vice President | 34,099 | 32,722 | 4,735 | \$71,555 |
| 11 | Jeffry M Householder, President of Florida Public Utilities Company | 0 | 0 | 0 | \$0 |
| 12 | Total Executive Compensation | <u>\$242,912</u> | <u>\$267,505</u> | <u>\$74,497</u> | <u>\$584,914</u> |

Notes: (2) Allocated to Delaware Division for the Test Period As Adjusted - 12 Months Ended 3/31/2016
(3) Term Life Insurance and Vehicle Allowance are based on 2014 amounts inflated at 3%

Schedule No. 3-E
SALES PROMOTION AND ADVERTISING EXPENSES

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **J. Weiss**

| Line No. | Account No. | Description | Test Year Ended June 30, 2015 | | Test Period Ending March 31, 2016 | |
|----------|-------------|-----------------------------------|---|------------------|---|------------------|
| | | | Description of Activity | Delaware Portion | Description of Activity | Delaware Portion |
| 1 | 912 | Demonstration and Selling Expense | Customer Information and Demonstrations | 10,767 | Customer Information and Demonstrations | 11,052 |
| 2 | 913 | Advertising Expense | Advertising | 141,392 | Advertising | 144,614 |
| 3 | | Total | | <u>\$152,158</u> | | <u>\$155,666</u> |

Schedule No. 3-F
CONTRIBUTIONS AND LOBBYING COSTS

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **J. Weiss**

No contributions for educational or other charitable purposes or lobbying costs are included as part of the cost of service to be recovered from the ratepayers.

Schedule No. 3-G
SOCIAL AND SERVICE CLUB DUES

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **J. Weiss**

| Line No. | Department | Test Year Ended June 30, 2015 | Test Period Ending March 31, 2016 |
|----------|---|-------------------------------------|---|
| 1 | MG110 - Natural Gas Distribution Management | 190 | 191 |
| 2 | MG111 - Distribution Operations Manager | 454 | 471 |
| 3 | MG771 & MG715 - AVP Customer Engagement | 1,647 | 3,193 |
| 4 | MK110 - Marketing | 15,472 | 16,398 |
| 5 | OP114 - Operations Tech - Central | 24 | 24 |
| 6 | OP115 - Operations Tech - Southeast | 11 | 11 |
| 7 | OP116 - Operations Tech - Southwest | 2 | 2 |
| 8 | OP120 - Line Locating | 57 | 57 |
| 9 | RA110 - Regulatory Affairs | 82 | 82 |
| 10 | SA110 - Sales | 1,182 | 1,209 |
| 11 | SM770 & SM714 - Safety Management | 82 | 82 |
| 12 | SM771 & SM710 - Safety Management | 239 | 239 |
| 13 | AC800 - Business Unit Accounting | 112 | 102 |
| 14 | AC900 - Corporate Accounting | 123 | 124 |
| 15 | BD900 - Board of Directors | 1,776 | 1,763 |
| 16 | CM900 - Communications | 124 | 119 |
| 17 | GV900 - Corporate Governance | 78 | 69 |
| 18 | HR900 & HR940 - Human Resources | 302 | 288 |
| 19 | IA800 - Internal Audit | 298 | 289 |
| 20 | IR900 - Investor Relations | 100 | 86 |
| 21 | IT801 - Financial Systems | 32 | 33 |
| 22 | MG901 - Chief Executive Officer | 1,507 | 1,363 |
| 23 | MG903 - Chief Financial Officer | 62 | 59 |
| 24 | MG904 - Controller | 29 | 28 |
| 25 | MG905 - VP of Strategic Development | 99 | 92 |
| 26 | PM900 & IT808 - Project Management Office | 9 | 6 |
| 27 | SP900 & NE980 - Strategic Development | 1,367 | 3,741 |
| 28 | TM900 - Treasury Management | 64 | 53 |
| 29 | Total | \$25,524 | \$30,177 |

Schedule No. 3-H
RATE CASE EXPENSE

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **J. Weiss**

Comparison of Projected Expenses of Current Case to Prior Rate Case

| <u>Line No.</u> | <u>Item of Expense</u> | <u>Current Case Estimated</u> | <u>Prior Case Actual</u> |
|-----------------|----------------------------------|-----------------------------------|------------------------------|
| 1 | State Commission Expenses | \$250,000 | \$218,188 |
| 2 | Legal & Court Reporting | 100,000 | 96,631 |
| 3 | Cost of Service, Rate Design | 155,000 | 126,536 |
| 4 | Cost of Capital | 50,000 | 25,348 |
| 5 | Rate Base / O & M Expenses | 0 | 48,912 |
| 6 | Depreciation | 0 | 43,772 |
| 7 | Miscellaneous Estimated Expenses | 30,000 | 22,014 |
| 8 | Total | <u>\$585,000</u> | <u>\$581,402</u> |

Schedule No. 3-H-1
INTERCOMPANY ACCOUNT ANALYSIS

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **J. Weiss**

| Line No. | Description | Test Year: Twelve Months Ended June 30, 2015 | | | Test Period: Twelve Months Ending March 31, 2016 | | | Description |
|----------|--|--|-----------------------|----------------------|--|---------------------|----------------------|-----------------------------|
| | | Amount | Allocation Basis | Change in Allocation | Amount | Allocation Basis | Change in Allocation | |
| 1 | Rents | \$304,279 | Employee Allocation | No | \$312,631 | Employee Allocation | No | Facility Rent |
| 2 | BravePoint, Inc. Information System Services | \$13,387 | Department Allocation | No (1) | \$0 | N/A | No | Information System Services |
| 3 | Natural Gas Purchases | \$11,692,894 | Direct | No | \$11,692,894 | Direct | No | Natural gas Purchases |
| 4 | Corporate Cost Centers | \$3,760,205 | (2) | Yes | \$4,092,401 | (2) | No | General corporate services |
| 5 | Purchases of Natural Gas for Facilities | \$1,449 | Invoiced Rates | No | \$1,346 | Invoiced Rates | No | Utility Expense |

(1) BravePoint was sold in October 2014 and is no longer an affiliated company.

(2) Please see Exhibit XXX for the allocations and methodologies to allocate corporate cost centers to Delaware Division

Schedule No. 3-I
OPERATING TAXES

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Elder**

| Line No. | Description | Test Year Ended June 30, 2016 | Test Period Ending 31-Mar-16 |
|----------|---|----------------------------------|---------------------------------|
| 1 | Federal Income Tax - Current | (\$270,399) | 680,674 |
| 2 | State Income Tax - Current | (16,931) | 185,319 |
| 3 | Deferred Federal Income Tax | 1,747,952 | 363,399 |
| 4 | Deferred State Income Tax | 440,235 | 98,938 |
| 5 | Sub-total | <u>\$1,900,857</u> | <u>\$1,328,330</u> |
| 6 | Other Federal, State and Local Taxes | 13,663 | 12,451 |
| 7 | Total Operating Taxes | <u><u>\$1,914,520</u></u> | <u><u>\$1,340,781</u></u> |

Schedule No. 3-J
TEST PERIOD FEDERAL AND STATE INCOME TAX

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Elder**

| Line No. | Description | Test Period Ending 31-Mar-16 |
|----------|---|---------------------------------|
| 1 | Operating Income before Income Taxes and Interest Expense | \$4,607,945 |
| 2 | Less: Interest Expense for the Test Period | 1,354,930 |
| 3 | Plus: 50% meals for the period | 14,308 |
| 4 | Earnings before taxes | \$3,267,323 |
| | Timing Differences: | |
| 5 | Accelerated Depreciation | (1,261,569) |
| 6 | Incentive Compensation | 103,316 |
| 7 | Purchased Gas Costs | 21,031 |
| 8 | Total Timing Differences | (\$1,137,222) |
| 9 | State Taxable Income | \$2,130,101 |
| 10 | State Tax at 8.7% | 8.70% \$185,319 |
| 11 | State tax provision to return adjustments | (\$28,602) |
| 12 | Total State Tax | \$156,717 |
| 13 | Federal Taxable Income | \$1,973,384 |
| 14 | Federal Income Tax at 35% | 35.00% \$690,684 |
| 15 | Federal tax provision to return adjustments | (\$155,063) |
| 16 | Total Federal income tax | \$535,621 |
| 17 | Total Current Income Tax Expense (12 + 16) | \$692,338 |

Schedule No. 3-K
TEST PERIOD DEFERRED FEDERAL AND STATE INCOME TAX

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Elder**

| Line No. | Description | Tax Basis | Test Period Ending March 31, 2016 | |
|----------|---|---------------|--------------------------------------|-----------|
| | | | Federal | State |
| | Deferred Income Taxes: | | | |
| 1 | Depreciation Related | | | |
| 2 | Deferred State Tax | (\$1,261,569) | | \$109,757 |
| 3 | Deferred Federal Tax | (\$1,151,812) | \$403,134 | |
| 4 | Incentive Compensation | | | |
| 5 | Deferred State Tax | \$103,316 | | (\$8,988) |
| 6 | Deferred Federal Tax | \$94,328 | (\$33,015) | |
| 7 | Purchased gas costs | | | |
| 8 | Deferred State Tax | \$21,031 | | (\$1,830) |
| 9 | Deferred Federal Tax | \$19,201 | (\$6,720) | |
| 32 | Total Deferred Income Taxes | | \$363,399 | \$98,939 |
| 33 | Total Current Income Taxes | | \$680,674 | \$185,319 |
| 34 | Total Income Tax Adjustments (Current and Deferred) | | \$12,119 | \$331 |
| 35 | Total Income Taxes | | \$1,056,192 | \$284,589 |
| 36 | Statutory Income Tax Rates | | 35.00% | 8.70% |

Schedule No. 3-K-1
STATEMENT OF INCOME TAX ACCOUNTING

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**

Docket No.: **15-**

Witness:

Statement on Deferred Tax Accounting

Deferred income results from the fact that certain transactions affect the determination of net income for financial accounting purposes in one reporting period and the computation of taxable income and income taxes payable in different reporting periods. The items that generate deferred income taxes are listed below:

- 1) Accelerated depreciation methods are utilized for income tax reporting while straight-line depreciation is used for financial reporting purposes.
- 2) Certain repair and replacement costs are deducted on a cash basis consistent with the 2014 Tangible Property Regulations while they are capitalized for financial reporting purposes.
- 3) Purchase gas costs as incurred are utilized as a current deduction for income tax reporting while a deferred method is utilized for financial reporting.
- 4) Bad debts are a reduction for income tax reporting as write offs occur while an allowance is maintained for bad debts for financial reporting purposes.
- 5) The tax rules associated with the capitalization of overheads and interest on self-constructed capital projects generates additional capitalization of overheads and interest for income tax reporting which is not required for financial reporting.
- 6) Certain incentive compensation costs are deductible on a cash basis while an accrual is maintained for financial reporting purposes.
- 7) With respect to accounting for pension expense for tax purposes, the Company deducts the amounts paid during the year, subject to certain limitations. For financial reporting purposes the Company expenses the net periodic pension costs based on actuarial calculations in accordance with ASC 715.

Schedule No. 3-K-1
STATEMENT OF INCOME TAX ACCOUNTING

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**

Docket No.: **15-**

Witness:

- 8) Other post retirement benefit expenses for tax purposes are accounted for in the same manner as pension expense as explained above.
- 9) Real property taxes are deductible on a cash basis for income tax reporting while an accrual basis is utilized for financial reporting.
- 10) Self-Insurance reserve amounts are deductible on a cash basis for income tax reporting and on an accrual basis for financial reporting.

SFAS No. 109 Accounting for Income Taxes

Effective January 1, 1993, the Company adopted Statement of Financial Accounting Standards No. 109 "Accounting for Income Taxes" ("SFAS No. 109"). The adoption of SFAS No. 109 changed the method of accounting for income taxes from the deferred method to the asset and liability approach.

The principal effect on the Company's financial statements of adopting SFAS No. 109 was the recording of deferred regulatory assets and liabilities for the estimated deficiency and excess deferred income taxes associated with depreciation.

At the point of adoption of SFAS No.109, the Company was required to have all deferred income taxes associated with temporary differences between financial statement and tax basis of assets and liabilities recorded at current effective income tax rates. All deferred income tax account balances at December 31, 1992 were reconciled to insure that the balance for each timing difference was at current income tax rates, with the exception of accumulated depreciation.

The calculation to reconcile deferred income taxes associated with accumulated depreciation was slightly more complex because the book and tax basis had to be adjusted for Equity Allowance for Funds Used During Construction ("AFUDC") and Investment Tax Credit ("ITC") basis reduction, respectively. At the point of adoption of SFAS No.109, the reconciliation determined that the Company's

Schedule No. 3-K-1
STATEMENT OF INCOME TAX ACCOUNTING

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**

Docket No.: **15-**

Witness:

balance for accumulated deferred income taxes associated with depreciation was unfunded by \$194,020.

SFAS No. 109 then required the Company to establish a deferred regulatory asset and deferred income tax liability associated with the revenue requirement and corresponding income tax liability to reflect the deficiency. To complicate accounting further, the deficiency (\$194,020) is actually the net of over funded deferred taxes for some years (\$329,405) and under funded deferred taxes for other years (\$135,385). The excess deferred income taxes were generated from the reduction of the income tax rates in the mid 1980's. The Company recorded the following journal entries in March 1993 to record the excess and under funded deferred tax liability:

| | | <u>Debit</u> | <u>Credit</u> |
|-----------|--|--------------|---------------|
| 1932 1823 | 109 Reg Asset-Rev Req-Depreciation | \$546,812 | |
| 26DP 2822 | Acc Def I/T-Depreciation-Long Term | | \$329,405 |
| 26DP 2829 | Acc Def I/T-Depreciation-Long Term 109 | | 217,407 |

To record the revenue requirement associated with unfunded income tax liability on depreciation ($\$329,405 \times 1.66 = \$546,812$)

The Company has previously utilized the average rate assumption method for calculating and recording deferred income taxes associated with depreciation.

| | | <u>Debit</u> | <u>Credit</u> |
|-----------|--|--------------|---------------|
| 26DP 2822 | Acc Def I/T-Depreciation-Long Term | \$135,385 | |
| 26DP 2829 | Acc Def I/T-Depreciation-Long Term 109 | 89,354 | |
| 2970 2540 | 109 Regulatory Liability Depreciation | | \$224,739 |

To record negative revenue requirement associated with excess deferred income taxes on depreciation ($\$135,385 \times 1.66 = \$224,739$)

In June 1996, in accordance with SFAS No. 109, the Company recorded the following journal entry to recognize the revenue requirement associated with Equity AFUDC on capital projects closed in 1995:

Schedule No. 3-K-1
STATEMENT OF INCOME TAX ACCOUNTING

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**

Docket No.: **15-**

Witness:

| | <u>Debit</u> | <u>Credit</u> |
|--|--------------|---------------|
| 1931 1823 109 Reg Asset-Equity AFUDC | \$65,885 | |
| 26AF 2829 Acc Def I/T AFUDC-Long Term 109 | | \$26,185 |
| 26DP 2822 Acc Def I/T-Depreciation-Long Term | | 39,700 |

Statement on Allocation of the Consolidated Federal Income Tax

Present Company policy provides that each company and division compute its income tax liability on a separate company (stand alone) basis. However, in the event that on the separate company basis, a company or division should incur a taxable loss or unused investment tax credit which is utilized elsewhere on the consolidated tax return, the parent reimburses the company or the division for the tax benefits realized. Earnings in equity of subsidiaries are eliminated in the consolidated return.

Schedule No. 3-L
UNAMORTIZED INVESTMENT TAX CREDIT

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Elder**

| | |
|--|-----------------|
| Unamortized Balance as of June 30, 2014 | \$0 |
| ITC Generated during TME June 30, 2015 | 0 |
| Amortization | 0 |
| Unamortized Balance as of June 30, 2015 | <hr/> \$0 |
| ITC Generated July 2015 - March 2016 | 0 |
| Amortization July 2015 - March 2016 | 0 |
| Unamortized Balance as of March 31, 2016 | <hr/> <hr/> \$0 |

(1) Delaware Division has no unamortized investment tax credit.

Schedule No. 3-M
OTHER FEDERAL, STATE AND LOCAL TAXES

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **J. Weiss**

| Line No. | Description | Test Year Ended June 30, 2015 | Test Period Ending March 31, 2016 |
|----------|--|----------------------------------|--------------------------------------|
| 1 | Payroll Taxes | 428,191.34 | 511,237.28 |
| 2 | Property Taxes | 1,158,875 | 1,359,722 |
| 3 | Revenue Related Taxes | 195,870 | 142,832 |
| 4 | Sub-total | <u>\$1,782,936</u> | <u>\$2,013,791</u> |
| | <u>Other Taxes</u> | | |
| 5 | Natural Gas Vehicle | 1,050.16 | 1,837.32 |
| 6 | State Franchise | 22,859 | 23,374 |
| 7 | Other | 1,060 | 881 |
| 8 | Sub-total Other Taxes | <u>\$24,970</u> | <u>\$26,092</u> |
| 9 | Total Other Federal, State and Local Taxes | <u><u>\$1,807,906</u></u> | <u><u>\$2,039,883</u></u> |

Schedule No. 3-N
ALLOWANCE FOR FUNDS USED DURING CONSTRUCTION

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **J. Weiss**

The Company computes Allowance For Funds Used During Construction ("AFUDC") for capital projects that meet certain criteria. The criteria for applying AFUDC to a capital project is that the capital project costs at least fifty thousand dollars (\$50,000), and will take more than six months to complete. The component of AFUDC for borrowed funds (allowance for borrowed funds used during construction) includes the cost of short-term and long-term debt used to finance utility construction. The component of AFUDC for other funds (allowance for other funds used construction) includes the cost of common equity used to finance utility construction.

AFUDC is an accounting procedure whereby the cost of borrowed and other funds used to finance utility construction projects is capitalized as part of utility plant with a corresponding credit to income. On the income statement, allowance for borrowed funds used during construction is reported as a credit to interest expense, and allowance for other funds used during construction is reported as other income. The Company accrues AFUDC on all eligible capital projects as defined above. AFUDC is not taxable income and the depreciation of capitalized AFUDC is not a tax-deductible expense.

There was no AFUDC for the years 2007 - 2015.

Schedule No. 3-O
OTHER INCOME AND DEDUCTIONS

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **J. Weiss**

| Line No. | Description | Test Year Ended June 30, 2015 | Test Period Ending March 31, 2016 |
|----------|----------------------------|----------------------------------|--------------------------------------|
| 1 | M & J Expense | (\$21,310) | (\$21,603) |
| 2 | Non-Utility Expense | (\$8,744) | (\$9,006) |
| 3 | Interest & Dividend Income | \$27,606 | \$28,337 |
| 4 | Donations | (\$38,250) | (\$38,876) |
| 5 | Civic & Political Expense | (\$730) | (\$752) |
| 6 | Other Income & Taxes | \$44,212 | \$45,225 |
| 7 | Deferred IT Debt | (\$27,667) | (\$28,497) |
| 8 | Taxes on Other Income | \$10,116 | \$10,234 |
| 9 | Total Net Other Income | <u>(\$14,767)</u> | <u>(\$14,938)</u> |

Schedule No. 4
PROPOSED FAIR RATE OF RETURN

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Moore**

1. Cost of Capital Summary

| Type of Capital | Capital Structure Ratio in % | Cost Rate | Weighted Cost of Capital |
|-----------------------|------------------------------------|--------------|--------------------------------|
| Long-Term Debt | 39.61% | 4.82% | 1.91% |
| Common Equity | 60.39% | 11.00% | 6.64% |
| Total Cost of Capital | <u>100.00%</u> | | <u>8.55%</u> |

Schedule No. 4-A
CAPITAL STRUCTURE AND RELATED RATIOS

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Moore**

| Line No. | Description | At Test Year End-June 30, 2015 | | At Test Period End-March 31, 2016 | |
|----------|----------------------------|--------------------------------|---------|-----------------------------------|---------|
| | | Amount Outstanding | Ratios | Amount Outstanding | Ratios |
| | <u>Long-Term Debt:</u> | | | | |
| 1 | Senior Notes | \$151,681,818 | 29.84% | \$215,454,545 | 35.79% |
| 2 | Convertible Debentures | 0 | 0.00% | 0 | 0.00% |
| 3 | Total Long-Term Debt | \$151,681,818 | 29.84% | \$215,454,545 | 35.79% |
| 4 | Consolidated Common Equity | \$356,654,628 | 70.16% | \$386,533,868 | 64.21% |
| 5 | Total Permanent Capital | \$508,336,446 | 100.00% | \$601,988,413 | 100.00% |

Schedule No. 4-B
COMPOSITE COST RATE OF DEBT

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Moore**

| Line No. | Series or Issue Designation | Amount Outstanding Test Period Ending March 31, 2016 | Percent To Total | Cost Rate | |
|----------|--------------------------------|---|---------------------|---------------------------|--------------|
| | | | | Schedule 4-C Effective | Weighted |
| 1 | Chesapeake Senior Note 5 | \$5,454,545 | 2.53% | 6.71% | 0.17% |
| 2 | Chesapeake Senior Note 6 | \$10,000,000 | 4.64% | 5.56% | 0.26% |
| 3 | Chesapeake Senior Note 7 | \$24,000,000 | 11.14% | 5.95% | 0.66% |
| 4 | Chesapeake Senior Note 8 | \$29,000,000 | 13.46% | 6.38% | 0.86% |
| 5 | Chesapeake Senior Note 9 | \$7,000,000 | 3.25% | 6.68% | 0.22% |
| 6 | Chesapeake Senior Note 10 | \$20,000,000 | 9.28% | 3.77% | 0.35% |
| 7 | Chesapeake Senior Note 11 | \$50,000,000 | 23.21% | 3.93% | 0.91% |
| 8 | Chesapeake Senior Note 12 | \$70,000,000 | 32.49% | 4.52% | 1.47% |
| 9 | Total | <u>\$215,454,545</u> | <u>100.00%</u> | | <u>4.90%</u> |

Schedule No. 4-B-1
COMPOSITE COST RATE OF DEBT

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Moore**

| Line No. | Series or Issue Designation | Amount Outstanding at June 30, 2015 | Principal Payments through March 31, 2016 | Amount Outstanding at March 31, 2016 |
|----------|--------------------------------|---|---|--|
| 1 | Chesapeake Senior Note 5 | \$8,181,818 | \$2,727,273 | \$5,454,545 |
| 2 | Chesapeake Senior Note 6 | 12,000,000 | 2,000,000 | \$10,000,000 |
| 3 | Chesapeake Senior Note 7 | 25,500,000 | 1,500,000 | \$24,000,000 |
| 4 | Chesapeake Senior Note 8 | 29,000,000 | 0 | \$29,000,000 |
| 5 | Chesapeake Senior Note 9 | 7,000,000 | 0 | \$7,000,000 |
| 6 | Chesapeake Senior Note 10 | 20,000,000 | 0 | \$20,000,000 |
| 7 | Chesapeake Senior Note 11 | 50,000,000 | 0 | \$50,000,000 |
| 8 | Total | <u>\$151,681,818</u> | <u>\$6,227,273</u> | <u>\$145,454,545</u> (1) |

(1) Does not include issuance of \$70,000,000 made after end of Test Year, which is included in Test Period balance on Schedule 4B

Schedule No. 4-C
CALCULATION OF THE EFFECTIVE COST RATE FOR LONG-TERM DEBT

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Moore**

| Line No. | Series | Stated Interest or Coupon Rate | Nominal Date of Issuance | Date of Maturity | Average Term in Years | Original Amount Issued | Premium or (Discount) at Issuance | Company Issuance Expenses | Net Proceeds | Net Proceeds Ratio | Effective Cost Rate |
|----------|---------------------------|-----------------------------------|-----------------------------|---------------------|--------------------------|---------------------------|---|---------------------------------|-----------------|-----------------------|------------------------|
| 1 | Chesapeake Senior Note 5 | 6.64% | 31-Oct-2002 | 31-Oct-2017 | 15 | \$30,000,000 | \$0 | \$141,831 | \$29,858,169 | 99.527% | 6.71% |
| 2 | Chesapeake Senior Note 6 | 5.50% | 12-Oct-2006 | 12-Oct-2020 | 14 | \$20,000,000 | \$0 | \$79,566 | \$19,920,434 | 99.602% | 5.56% |
| 3 | Chesapeake Senior Note 7 | 5.93% | 31-Oct-2008 | 31-Oct-2023 | 15 | \$30,000,000 | \$0 | \$39,518 | \$29,960,482 | 99.868% | 5.95% |
| 4 | Chesapeake Senior Note 8 | 5.68% | 24-Jun-2011 | 30-Jun-2026 | 15 | \$29,000,000 | \$0 | \$1,496,322 | \$27,503,678 | 94.840% | 6.38% |
| 5 | Chesapeake Senior Note 9 | 6.43% | 2-May-2013 | 2-May-2028 | 15 | \$7,000,000 | \$0 | \$121,631 | \$6,878,369 | 98.262% | 6.68% |
| 6 | Chesapeake Senior Note 10 | 3.73% | 16-Dec-2013 | 16-Dec-2028 | 15 | \$20,000,000 | \$0 | \$68,794 | \$19,931,206 | 99.656% | 3.77% |
| 7 | Chesapeake Senior Note 11 | 3.88% | 15-May-2014 | 15-May-2029 | 15 | \$50,000,000 | \$0 | \$192,790 | \$49,807,210 | 99.614% | 3.93% |
| 8 | Chesapeake Senior Note 12 | 4.50% | 31-Dec-2015 | 31-Dec-1930 | 15 | \$130,000,000 | \$0 | \$220,000 | \$129,780,000 | 99.831% | 4.52% |

Schedule No. 4-D
COMPOSITE COST RATE OF PREFERRED STOCK

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**

Witness Responsible: _____

| <u>Line No.</u> | <u>Series Designation</u> | <u>Amount Outstanding</u> | <u>Percent to Total</u> | <u>Cost Rate</u> | |
|-----------------|---------------------------|-------------------------------|-----------------------------|-----------------------------------|-----------------|
| | | | | <u>Schedule 4-E Effective</u> | <u>Weighted</u> |

Chesapeake Utilities Corporation does not have any preferred stock issued or outstanding.

Schedule No. 4-E
CALCULATION OF THE EFFECTIVE COST RATE OF PREFERRED SOTCK

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**

Witness Responsible: _____

| <u>Line No.</u> | <u>Series Designation (2)</u> | <u>Stated Dividend Rate</u> | <u>Average Term In Years (1)</u> | <u>Date of Issue</u> | <u>Original Amount Issued</u> | <u>Premium (Discount) at Issuance</u> | <u>Company Issuance Expenses</u> | <u>Net Proceeds on Principal Amount Issued</u> | <u>Net Proceeds Ratio</u> | <u>Effective Cost Rate</u> |
|-----------------|-------------------------------|---------------------------------|--------------------------------------|--------------------------|-----------------------------------|---|--------------------------------------|--|-------------------------------|--------------------------------|
|-----------------|-------------------------------|---------------------------------|--------------------------------------|--------------------------|-----------------------------------|---|--------------------------------------|--|-------------------------------|--------------------------------|

Chesapeake Utilities Corporation does not have any preferred stock issued or outstanding.

Notes: (1) Determined by taking into account the effect of annual sinking fund requirements which are met by the retirement of shares which reduce the average term of each series
(2) The effective cost rate for each issue is the cost rate to maturity using as inputs the average term of issue, dividend rate and the net proceeds ration.

Schedule No. 4-F
PUBLIC OFFERINGS OF COMMON STOCK

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Moore**

| Line No. | Item | Public Offering | Offering Related to Acquisition | Company Programs (1) | Company Programs (1) | Company Programs (1) | Company Programs (1) | Company Programs (1) |
|----------|--|-----------------|---------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | Date of Prospectus | n/a | 04/01/15 | 2010 | 2011 | 2012 | 2013 | 2014 |
| 2 | Subscription Offering Ratio | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 3 | Number of Shares Offered | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 4 | Number of Shares Issued | n/a | 592,970 | 194,822 | 64,668 | 45,288 | 61,097 | 131,366 |
| 5 | Share Price | n/a | \$50.87 | \$17.80 | \$19.70 | \$30.23 | \$26.47 | \$32.65 |
| 6 | Underwriting Discount | n/a | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 7 | Gross Value to Company | n/a | \$30,164,384 | \$3,467,832 | \$1,273,960 | \$1,369,056 | \$1,617,238 | \$4,289,100 |
| 8 | Estimated Company Expenses | n/a | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 9 | Earnings Per Share (Actual Reported) for 12 Months Ended June 30, 2015 | n/a | \$2.76 | | | | | |
| 10 | Net value Per Share | n/a | \$30,164,384 | \$3,467,832 | \$1,273,960 | \$1,369,056 | \$1,617,238 | \$4,289,100 |
| 11 | Latest Annualized Reported Dividend at Time of Offering | n/a | \$1.15 | \$0.88 | \$0.92 | \$0.97 | \$1.03 | \$1.08 |
| 12 | Book Value Per Share as of June 30, 2015 | n/a | \$23.04 | | | | | |
| 13 | Earnings/Net Value Ratio per share | n/a | 5.43% | | | | | |
| 14 | Net Value/ Book Ratio | n/a | 8.59% | | | | | |
| 15 | Dividend Yield on Offering Price | n/a | 2.26% | | | | | |
| 16 | Pro Forma Permanent Capital (After New Financing) | n/a | | | | | | |
| | Stockholders Equity 6/30/15 | | \$351,175,912 | 68.0% | | | | |
| | Long-Term deb 6/30/15 | | \$165,374,670 | 32.0% | | | | |
| | | | \$516,550,582 | | | | | |

(1) Includes Dividend Reinvestment and Dividend and Direct Stock Purchase Plan, 401K Plan, Stock Incentive Compensation.

Schedule No. 4-F-1
SUMMARY STATEMENT OF COMMON EQUITY CHANGE

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**

Docket No.: **15-**

Witness:

Chesapeake's Board of Directors approved a three-for-two stock split of the Company's outstanding stock on July 2, 2014. This stock split was effected in the form of a stock dividend entitling each stockholder as of the record date (August 13, 2014) to receive one additional share of common stock for every two shares of common stock owned. This stock dividend was issued on September 8, 2014. There were no changes to common stock par value as a result of this stock split.

Schedule No. 4-G
COMPARATIVE FINANCIAL DATA - GENERAL

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**

Witness:

| Line No. | Item | 2013 Next Most Recent Calendar Year | 2014 Most Recent Calendar Year | Test Year Ended June 30, 2015 | Test Period Ending March 31, 2016 |
|----------|--|---|--------------------------------------|----------------------------------|--------------------------------------|
| 1 | Embedded Cost - Long-Term Debt | 5.77% | 5.14% | 5.12% | 4.82% |
| 2 | Embedded Cost - Preferred Stock | n/a | n/a | n/a | n/a |
| 3 | Pretax Interest Coverage | 7.66 | 7.33 | 7.80 | 7.33 |
| 4 | Pretax Interest Coverage, Before AFUDC | 7.66 | 7.33 | 7.80 | 7.33 |
| 5 | After Tax Interest Coverage | 4.98 | 4.81 | 5.09 | 4.88 |
| 6 | After Tax Interest Coverage, Before AFUDC | 4.98 | 4.81 | 5.09 | 4.88 |
| 7 | Indenture Provision Coverage 1/ | 6.65 | 6.41 | 6.24 | 6.44 |
| 8 | After Tax Interest & Pfd. Div. Coverage | 4.98 | 4.81 | 4.81 | 4.88 |
| 9 | After Tax Interest & Pfd. Div. Coverage, Before AFUDC | 4.98 | 4.81 | 5.09 | 4.88 |
| 10 | Moody's Bond Rating - Senior Debt | not rated | not rated | not rated | not rated |
| 11 | S & P Bond Rating - Senior Debt | not rated | not rated | not rated | not rated |
| 12 | NAIC Debt Rating 3/ | NAIC1 | NAIC1 | NAIC1 | NAIC1 |
| 13 | Moody's Preferred Stock Rating | n/a | n/a | n/a | n/a |
| 14 | S & P Preferred Stock Rating | n/a | n/a | n/a | n/a |
| 15 | Rate of Return on Net Plant in Service | 5.19% | 5.23% | 5.15% | 4.60% |
| 16 | Rate of Return on Total Capital | 11.76% | 12.02% | 11.58% | 9.70% |
| 17 | Percentage of Revenues from Gas Service 2/ Percentage of Revenues from Other 2/ | 99.00% 1.00% | 99.00% 1.00% | 99.00% 1.00% | 99.00% 1.00% |
| 18 | Composite Depreciation Rates | 3.81% | 3.78% | 3.42% | 3.05% |

1/ Indentures to the long-term debt of the Company contain various restrictions. The most stringent restrictions state that the Company must maintain an equity to total capitalization ratio of at least 40% and the pro-forma fixed charge coverage ratio must be 1.2 times. The Company is in compliance with all of its debt covenants.

2/ This represents the percentage of revenues from gas service for the Delaware Division only. Total Delaware Division revenues were \$56,630,876 in 2013 \$62,841,044 in 2014, and \$65,518,579 for the 12 months ended June 30, 2015.

Except as noted above, the information presented is for Chesapeake Utilities Corporation consolidated results.

3/ National Association of Insurance Commissioners Ratings on Private Placement Debt - NAIC1 equals Highest Rating (A Equivalent Rating)

Schedule No. 4-H
COMPARATIVE FINANCIAL DATA - COMMON STOCK (1)

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness:

| Line No. | Item | 2013 Next Most Recent Calendar Year | 2014 Most Recent Calendar Year | Test Year Ended June 30, 2015 | Test Period Ending March 31, 2016 |
|----------|--|---|--------------------------------------|----------------------------------|--------------------------------------|
| 1 | Shares Outstanding Period End | 14,457,345 | 14,588,711 | 15,242,967 | 16,094,813 |
| 2 | Shares Outstanding - Weighted Average | 14,430,962 | 14,551,308 | 14,749,645 | 15,338,344 |
| 3 | Basic Earnings Per Share - on Weighted Average | \$2.27 | \$2.48 | \$2.76 | \$2.62 |
| 4 | Dividends Paid Per Share | \$1.000 | \$1.053 | \$1.053 | \$1.133 |
| 5 | Dividends Declared Per Share | \$1.013 | \$1.067 | \$1.098 | \$1.150 |
| 6 | Dividend Payout Ratio (Declared Basis) (5 / 3) | 44.64% | 43.01% | 39.76% | 43.89% |
| 7 | Market Price - Average of Quarterly Averages of High and Low Prices | \$35.25 | \$43.69 | \$47.34 | \$49.41 |
| 8 | Book Value Per Share - Period End | \$19.28 | \$20.59 | \$23.04 | \$25.76 |
| 9 | Average Book Value (Beginning & End of Period) | \$18.55 | \$19.90 | \$21.78 | \$23.30 |
| 10 | Earnings to Price Ratio (7 / 3) | 15.53 | 17.62 | 17.15 | 18.86 |
| 11 | Market to Book Ratio (7 / 9) | 1.90 | 2.20 | 2.17 | 2.12 |
| 12 | Dividend Yield (5 / 7) | 2.88% | 2.44% | 2.32% | 2.33% |
| 13 | Rate of Return on Average Book Common Equity (3 / 9) | 12.24% | 12.46% | 12.67% | 11.24% |
| 14 | AFUDC as % Earnings for Common | 0.00% | 0.00% | 0.00% | 0.00% |
| 15 | Effective Income Tax Rate (Federal & State) | 40.655% (2) | 40.655% (2) | 40.655% (2) | 40.655% (2) |

(1) The information provided in lines 1 through 14 is for Chesapeake Utilities Corporation consolidated results. The Delaware Division does not have its own stockholders.

(2) Represents Delaware Division's Effective Income Tax Rate.

Schedule No. 5
COMPUTATION OF GROSS REVENUE CONVERSION FACTOR

Delaware Public Service Commission

Company: **Chesapeake Utilities Corporation**
Docket No.: **15-**
Witness: **Hardy**

| Line No. | Item | % Incremental Gross Revenues | |
|----------|--|------------------------------|----------|
| | | Actual | |
| 1 | Gross Operating Revenue | | 100.00 |
| 2 | Adjustment for Uncollectibles | 0.2709% | 0.27090 |
| 3 | Adjusted Operating Revenue | | 99.72910 |
| 4 | Less: P.S.C. Assessment | 0.3000% | 0.30000 |
| 5 | Income Before State Income Tax | | 99.42910 |
| 6 | State Income Tax | 8.70% | 8.65033 |
| 7 | Income Before Federal Income Tax | | 90.77877 |
| 8 | Federal Income Tax | 35.00% | 31.77257 |
| 9 | Income After Federal Income Tax | | 59.00620 |
| 10 | Operating Income | | 59.00620 |
| 11 | Gross Revenue Conversion Factor (100% divided by Operating Income Percentage) | | 1.69474 |

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION OF)
CHESAPEAKE UTILITIES CORPORATION)
FOR A GENERAL INCREASE IN ITS) P.S.C. DOCKET NO. 15-
NATURAL GAS RATES AND FOR)
APPROVAL OF CERTAIN OTHER)
CHANGES TO ITS NATURAL GAS TARIFF)

DIRECT TESTIMONY OF C. JAMES MOORE

On Behalf of Chesapeake Utilities Corporation

Delaware Division

Submitted for filing: December 21, 2015

1 Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

2 A. My name is C. James Moore and I am a Vice President with Chesapeake

3 Utilities Corporation ("Chesapeake"). My business address is 350 S. Queen

4 Street, Dover, Delaware 19904.

5

6 Q. DESCRIBE BRIEFLY YOUR EDUCATION AND RELEVANT PROFESSIONAL

7 BACKGROUND.

8 A. I hold a Bachelor of Science Degree in Business Administration from Salisbury

9 State College in Salisbury Maryland and I have served with Chesapeake for

10 nearly 30 years. Over my tenure with Chesapeake I have held several positions

11 in both our natural gas and propane segments including Vice President of

12 Sharpgas, Inc., General Manager of Eastern Shore Natural Gas Company,

13 Manager of Supply & Marketing, Director of Natural Gas Distribution and

14 Director of Gas Supply & Business Development for Chesapeake's Delaware

15 and Maryland divisions. I have served as the Vice President of Chesapeake's

16 Delmarva Natural Gas Distribution business unit since September 2014.

17

18 Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE DELAWARE PUBLIC

19 SERVICE COMMISSION ("COMMISSION")?

20 A. Yes. I have testified before the Commission in prior Delaware Division Gas

21 Sales Service Rate proceedings.

22

1 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS
2 PROCEEDING?

3 A. As Vice President for Chesapeake's Delaware Division ("Delaware Division" or
4 the "Company"), I have overall responsibility for the Delaware Division's
5 application for a general increase in its natural gas rates throughout its service
6 territory in Delaware along with the other requested changes to its natural gas
7 tariff. My direct testimony consists of the following subject areas:

8 I. Need for Rate Relief

9 II. Organization of Filing

10 III. Identification of Attachments

11 IV. Chesapeake Utilities Corporation Organization

12 V. Net Operating Income

13 VI. Capital Structure

14 VII. Overall Return Requirement

15 VIII. Cost of Service Study

16

17 **I. Need for Rate Relief**

18 Q. WHAT IS THE PRINCIPLE REASON FOR FILING THIS RATE CASE?

19 A. The Delaware Division of Chesapeake Utilities Corporation has been unable to
20 earn its allowed rate of return for the twelve months ended June 30, 2015, which
21 is the test year selected by the Company in this proceeding. As indicated on
22 Minimum Filing Requirement ("MFR") Schedule No. 1, the actual earned rate of
23 return for the Delaware Division during the test year was 6.20%. As a result, the

1 primary reasons for the Company's proposed rate increase relate to increases in
2 the return requirement for gas utility plant investments, a significant decline in
3 fixed margin contribution from the Company's residential, commercial and
4 industrial firm customer classes, and an increase in taxes and fees. The major
5 components of the requested rate increase are shown on Schedule C of the
6 MFR's.

7
8 Q. WHEN DID THE DELAWARE DIVISION LAST IMPLEMENT AN INCREASE IN
9 BASE RATES OR DELIVERY SERVICE RATES?

10 A. The Delaware Division's most recent base rate increase was initiated by the
11 Company on July 6, 2007 in Docket No. 07-186. The Commission granted the
12 Company an increase in base rates of \$325,000 effective with bills rendered on
13 and after September 3, 2008, by Order No. 7434, dated September 2, 2008.

14
15 Q. AS A RESULT OF THIS COMMISSION ORDER FROM THE COMPANY'S
16 LAST BASE RATE CASE PROCEEDING, WERE THERE ANY ISSUES THAT
17 CHESAPEAKE'S DELAWARE DIVISION WAS DIRECTED TO ADDRESS IN
18 ITS NEXT BASE RATE FILING?

19 A. Yes. As a result of the settlement agreement in Docket No. 07-186 and
20 Commission Order No. 7434, Chesapeake's Delaware Division was directed to
21 include in its next base rate proceeding, an evaluation of all incremental main
22 extensions of greater than 500 feet initiated by the Company since March 2007,
23 that the Company proposed to include in rate base. If, in aggregate, these

1 projects earn the Company's authorized rate of return over the life of the project,
2 then all investment is included in rate base. If, in aggregate, the projects do not
3 earn the Company's authorized rate of return, then 50% of the return shortfall is
4 excluded from rate base.

5

6 Q. HAS CHESAPEAKE'S DELAWARE DIVISION COMPLIED WITH THE
7 REQUIREMENTS OF THIS PRIOR COMMISSION ORDER IN THIS BASE
8 RATE APPLICATION FILING?

9 A. Yes. An evaluation of the incremental main extensions since March 2007 was
10 performed and the results are discussed in the direct testimony of Mr. Jeffrey
11 Weiss.

12

13 Q. WHAT IS THE TEST YEAR AND TEST PERIOD THAT THE COMPANY
14 PROPOSES TO UTILIZE IN THIS PROCEEDING?

15 A. The proposed test year is the twelve months ended June 30, 2015 and the test
16 period is the twelve months ending March 31, 2016, as adjusted.

17

18 **II. Organization of Filing**

19 Q. PLEASE EXPLAIN HOW THE DELAWARE DIVISION'S RATE APPLICATION
20 FILING IS ORGANIZED.

21 A. The Company's rate application filing is contained in one (1) notebook or
22 volume. Contained within the notebook are the Company's base rate
23 application, briefing sheet, the proposed tariff, a redlined version of the proposed

1 tariff, Minimum Filing Requirements, and the pre-filed direct testimonies and
2 attachments of the witnesses. The Company is presenting a total of thirteen
3 (13) witnesses in this proceeding. The witnesses are myself, Sarah Hardy,
4 Matthew Everngam, Jeffrey Weiss, Matthew Dewey, Lisa Elder, Christopher
5 Redd, Autumn Chalabala, Shane Breakie, Kathy McVay, John Taylor, Ronald
6 Amen and Paul R. Moul.

7 I am providing an overall summary of the reasons for the filing. Ms. Sarah
8 Hardy, Rate Analyst III, is providing testimony related to sales and revenues,
9 cost of service internal cost studies, the request for interim rates, and proposed
10 changes to the tariff. Mr. Matthew Everngam, Rate Analyst III, is providing
11 testimony on the proposed rate base. Mr. Jeffrey Weiss, Rate Analyst II, is
12 providing testimony related to business unit operations and maintenance
13 expenditures as well as the result of the combined internal rate of return model
14 as dictated by the settlement agreement in the last base rate proceeding. Mr.
15 Matthew Dewey, Director of Accounting Shared Services, is providing testimony
16 related to corporate operations and maintenance expenditure adjustments and
17 cost allocation procedures. Ms. Lisa Elder, Director of Financial Reporting and
18 Tax, is providing testimony related to income taxes. Mr. Christopher Redd,
19 Director, Gas Operations and Engineering, is providing testimony related to
20 capital spending. Ms. Autumn Chalabala, Manager, Financial Analysis and
21 Services, is providing testimony related to actual operating and maintenance
22 expenses. Mr. Shane Breakie, Director, Energy Services, is providing testimony
23 related to newly proposed services. Ms. Kathy McVay, an independent

1 consultant, is putting forth a proposal regarding the Company's pension plan,
2 Mr. John Taylor, a regulatory consultant, is providing the results of the Delaware
3 Division's cost of service study. Mr. Ronald Amen, a regulatory consultant, is
4 providing testimony on the Delaware Division's proposed rate design and a
5 proposed revenue normalization mechanism. Mr. Paul R. Moul, a management
6 consultant on cost of capital, is providing testimony related to a return on equity
7 and an overall rate of return for Delaware Division.

8
9 **III. Identification of Attachments**

10 Q. DO YOU SPONSOR ANY ATTACHMENTS IN SUPPORT OF YOUR
11 TESTIMONY?

12 A. Yes, I do. All of the Minimum Filing Requirement Schedules included with the
13 Company's application were prepared under my direction and supervision and
14 are based upon information derived from the books and records of the
15 Company.

16
17 **IV. Chesapeake Utilities Corporation Organization**

18 Q. PLEASE DESCRIBE CHESAPEAKE UTILITIES CORPORATION'S
19 ORGANIZATIONAL STRUCTURE.

20 A. Chesapeake Utilities Corporation is a diversified utility company engaged in
21 natural gas gathering, distribution, transmission and marketing, electric
22 distribution, propane distribution and wholesale marketing.

1 Chesapeake's natural gas distribution operations serve approximately 141,000
2 residential, commercial and industrial customers in Delaware, Maryland and
3 Florida. In Delaware and Maryland, it operates as Chesapeake Utilities
4 Corporation. In Maryland it also operates as Sandpiper Energy, Inc. The
5 Delaware Division serves southern New Castle County and is the only natural
6 gas distribution system serving Delaware's Kent and Sussex counties. The
7 Maryland Division and Sandpiper operate the only natural gas distribution
8 systems, with the exception of one municipal system, on Maryland's Eastern
9 shore. In Florida, Chesapeake Utilities Corporation operates both as a division
10 of Chesapeake, Central Florida Gas ("CFG"), as well as a wholly owned
11 subsidiary, Florida Public Utilities Company ("FPUC"). CFG is engaged in the
12 distribution of natural gas to residential, commercial and industrial customers
13 throughout nine counties in the State of Florida, while FPUC distributes and sells
14 natural gas, to residential, commercial and industrial customers throughout six
15 counties within the State of Florida. Additionally, FPUC distributes and sells
16 electricity to four counties in the northwestern and northeastern parts of Florida.
17 Chesapeake's natural gas marketing subsidiary, Peninsula Energy Services
18 Company, Inc. ("PESCO"), buys gas from various suppliers and sells gas to
19 commercial and industrial customers. PESCO is active in the states of Florida,
20 Ohio, Pennsylvania, Maryland and Delaware. The relative size of the operations
21 in each of the jurisdictions is shown in the following table that provides deliveries
22 and average number of customers for the year 2014.

**Chesapeake Utilities Corporation Natural Gas Distribution
For the Year 2014**

| <u>Deliveries in MMcf</u> | <u>Total</u> | <u>Delaware</u> | <u>Maryland</u> | <u>Sandpiper</u> | <u>Florida</u> |
|-------------------------------------|---------------------|------------------------|------------------------|-------------------------|-----------------------|
| <i>Firm:</i> | | | | | |
| Residential | 5,132 | 2,697 | 564 | 289 | 1,582 |
| Commercial & Industrial | 4,540 | 1,120 | 529 | 373 | 2,518 |
| Transportation | 22,884 | 4,005 | 1,715 | 89 | 17,075 |
| <i><u>Interruptible:</u></i> | 637 | 0 | 0 | 0 | 637 |
| <u>Total Deliveries</u> | 33,193 | 7,822 | 2,808 | 751 | 21,812 |

| <u>Number of Customers</u> | <u>Total</u> | <u>Delaware</u> | <u>Maryland</u> | <u>Sandpiper</u> | <u>Florida</u> |
|-------------------------------------|---------------------|------------------------|------------------------|-------------------------|-----------------------|
| <i>Firm:</i> | | | | | |
| Residential | 127,430 | 41,466 | 10,930 | 9,819 | 65,215 |
| Commercial & Industrial | 10,609 | 3,429 | 1,756 | 1,080 | 4,344 |
| Transportation | 3,114 | 310 | 71 | 8 | 2,725 |
| <i><u>Interruptible:</u></i> | 20 | 5 | 0 | 0 | 15 |
| <u>Total Customers</u> | 141,173 | 45,210 | 12,757 | 10,907 | 72,299 |

Chesapeake's natural gas transmission subsidiary, Eastern Shore Natural Gas Company ("ESNG"), operates an interstate pipeline system that transports natural gas through interconnects with three upstream interstate pipeline systems at four separate interconnect locations, three in southeastern Pennsylvania and one in northern Delaware. The pipeline transports and delivers natural gas through 442 miles of transmission pipeline to Chesapeake's Delaware and Maryland Divisions and Sandpiper, as well as four non-affiliated local distribution companies (including one municipality), four electric generation customers and ten industrial customers located in Delaware, the Eastern Shore

1 of Maryland and Pennsylvania. Eastern Shore Natural Gas Company is
2 regulated by the Federal Energy Regulatory Commission ("FERC").

3 Based in Georgetown, Delaware, Chesapeake's wholly owned propane
4 distribution subsidiary, Sharp Energy, Inc., distributes propane to approximately
5 37,000 residential, commercial and industrial customers in Delaware, Maryland,
6 Virginia, and Pennsylvania. Chesapeake's propane marketing subsidiary,
7 Xeron, Inc., based in Houston, Texas, markets propane to large independent oil
8 and petrochemical companies, resellers and propane distribution companies
9 located in the southeastern region of the country.

10 Chesapeake's other subsidiaries include Skipjack, Inc. and Eastern Shore
11 Real Estate, Inc., which both own and lease property, primarily to affiliates of
12 Chesapeake.

13
14 **V. Net Operating Income**

15 Q. WHAT ARE THE COMPONENTS OF THE DELAWARE DIVISION'S NET
16 OPERATING INCOME ("NOI") FOR THE TEST YEAR ENDED JUNE 30, 2015?

17 A. Net Operating Income for the Test Year is comprised of actual results of
18 operations for the twelve month period ended June 30, 2015 and is shown on
19 MFR Schedule No. 3 as follows:

20 Operating Revenues

21 Operating Expenses

22 Interest on Customer Deposits

23 Taxes Other Than Income

1 Total Operating Taxes
2 Net Operating Income
3 Allowance for Funds Used During Construction
4 Net Income Available for Return
5

6 Q. ARE THE COMPONENTS THE SAME FOR THE TEST PERIOD ENDING
7 MARCH 31, 2016?

8 A. Yes, the components in NOI for the Test Year ended June 30, 2015 are the
9 same for the Test Period ending March 31, 2016.
10

11 Q. ARE THERE ANY DIFFERENCES IN THE METHODOLOGY USED IN
12 CALCULATING THE TEST YEAR AND TEST PERIOD NET OPERATING
13 INCOME?

14 A. Yes. The Test Year ended June 30, 2015 NOI was based upon an actual twelve
15 month experience. The Test Period ending March 31, 2016 NOI was determined
16 by adjusting the Test Year amounts to annualize costs for known and
17 measurable changes in an effort to properly match expenses with sales during
18 the period in which the proposed rates will be in effect, and to properly reflect
19 transactions as they would be expected to occur in a “normal year.”
20

21 Q. PLEASE EXPLAIN HOW THE DELAWARE DIVISION'S TEST PERIOD
22 OPERATING REVENUES, AS SHOWN IN MFR SCHEDULE 3-A, WERE
23 CALCULATED.

1 A. As shown on Schedule No. 3-A-1, Test Year heat sensitive firm revenues have
2 been adjusted to reflect sales levels expected in a normal degree day year and
3 also adjusted to reflect the number of customers projected to be on the
4 distribution system through the end of the Test Period. The determination of a
5 normal degree day year is based upon weather data for a ten-year average of
6 degree days for the months of July 2005 through June 2015. The adjustments
7 to operating revenue are more fully discussed in the direct testimony of Ms.
8 Sarah Hardy.
9
10 Q. IS THE DELAWARE DIVISION PROPOSING ANY CHANGES TO ITS RATE
11 SCHEDULES?
12 A. No. At this time, the Delaware Division is not proposing any changes to its rate
13 schedules.
14
15 Q. PLEASE EXPLAIN HOW THE DELAWARE DIVISION'S TEST PERIOD
16 OPERATING EXPENSES WERE CALCULATED AS SHOWN ON SCHEDULE
17 3-B.
18 A. A summary of Test Period adjustments made to operating expenses and net
19 operating income is documented in the Direct Testimonies of Mr. Jeffrey Weiss
20 and Mr. Matthew Dewey.

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VI. Capital Structure

Q. HOW WAS THE PROPOSED TEST PERIOD CAPITAL STRUCTURE DETERMINED?

A. The proposed Test Period capital structure is based upon the estimated long-term debt balances and effective cost rates and Common Equity balance at March 31, 2016 for Chesapeake Utilities Corporation. This is comprised of 39.61% Long-Term Debt and 60.39% Common Equity.

Q. WHAT IS THE DELAWARE DIVISION'S PROPOSED OVERALL RATE OF RETURN IN THIS PROCEEDING?

A. As shown below and on Schedule No. 4, the Delaware Division proposes an overall rate of return of 8.55% for the Test Period.

| | <u>Ratio</u> | <u>Effective Cost Rate</u> | <u>Weighted Cost of Capital</u> |
|-----------------------|----------------|--------------------------------|-------------------------------------|
| Long-Term Debt | 39.61% | 4.82% | 1.91% |
| Common Equity | <u>60.39%</u> | 11.00% | <u>6.64%</u> |
| Total Cost of Capital | <u>100.00%</u> | | <u>8.55%</u> |

Mr. Paul R. Moul testifies that the appropriate cost of Common Equity for the Delaware Division in this proceeding is 11.00%, with the Company's proposed Revenue Normalization Mechanism. The effective long-term debt cost rate utilized is for Chesapeake Utilities Corporation at March 31, 2016.

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VII. Overall Return Requirement

- Q. WHAT IS THE PROPOSED RETURN REQUIREMENT FOR THE DELAWARE DIVISION IN THIS BASE RATE PROCEEDING?
- A. As shown on Schedule No. 1, the proposed Test Period return requirement is \$6,065,262. This is based upon a Test Period rate base of \$70,938,749 and a proposed overall rate of return of 8.55%. The Company is proposing to increase its revenue by \$4,741,823, or approximately 9.96% of total Test Period operating revenue to achieve the forecasted return requirement.

VIII. Cost of Service Study

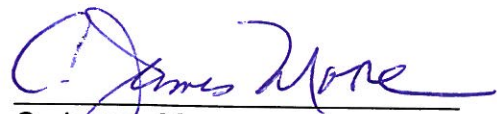
- Q. IS THE COMPANY SUBMITTING A COST OF SERVICE STUDY IN SUPPORT OF THIS BASE RATE APPLICATION?
- A. Yes. Cost of service study summaries, both at the current and proposed rate classes, are included in this filing and are outlined in the testimony of Mr. John Taylor.
- Q. DOES THIS CONCLUDE YOUR TESTIMONY?
- A. Yes, it does.

DATED: DECEMBER 21, 2015

STATE OF DELAWARE)
)
COUNTY OF KENT)

AFFIDAVIT OF C. JAMES MOORE

C. JAMES MOORE, being first duly sworn according to law, on oath deposes and says that he is the witness whose testimony appears as "Chesapeake Utilities Corporation, Delaware Division, Direct Testimony of C. James Moore"; that, if asked the questions which appear in the text of the direct testimony, he would give the answers that are therein set forth; and that he adopts this testimony as his sworn direct testimony in these proceedings.


C. James Moore

Then personally appeared this 21st day of December 2015 the above-named C. James Moore and acknowledged the foregoing Testimony to be his free act and deed.
Before me,




Notary Public
My Commission Expires: 7.17.18

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION OF)
CHESAPEAKE UTILITIES CORPORATION)
FOR A GENERAL INCREASE IN ITS) P.S.C. DOCKET NO. 15-
NATURAL GAS RATES AND FOR)
APPROVAL OF CERTAIN OTHER)
CHANGES TO ITS NATURAL GAS TARIFF)

DIRECT TESTIMONY OF SARAH E. HARDY

On Behalf of Chesapeake Utilities Corporation

Delaware Division

Submitted for filing: December 21, 2015

1 Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

2 A. My name is Sarah E. Hardy and I am a Regulatory Analyst III with Chesapeake

3 Utilities Corporation ("Chesapeake" or the "Company"). My business address is

4 350 S. Queen Street, Dover, Delaware 19904.

5

6 Q. DESCRIBE BRIEFLY YOUR EDUCATION AND RELEVANT PROFESSIONAL

7 BACKGROUND.

8 A. I received a Bachelor of Science degree in Business Administration with

9 concentrations in Management and Operations Management and a Minor in

10 International Business from the University of Delaware in Newark, Delaware, in

11 2005. I received a Masters of Business Administration from the University of

12 Delaware in Newark, Delaware, in 2009. I was hired by Chesapeake as a

13 Regulatory Analyst II in June 2010, and promoted to a Regulatory Analyst III in

14 October of 2014. As a Regulatory Analyst III, I have primarily been involved in

15 the areas of gas cost recovery, rate of return analysis, and budgeting for the

16 Delaware natural gas distribution company. Prior to joining Chesapeake, I was

17 employed by Conectiv Energy Supply, Inc. from July, 2005 until May, 2010, most

18 recently as a Senior Accountant. As a Senior Accountant, I was responsible for

19 Conectiv Energy's derivatives accounting (including preparation of derivatives

20 disclosures for SEC reporting), Federal Energy Regulatory Commission (FERC)

21 filings, and other general accounting duties.

1 Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE DELAWARE PUBLIC
2 SERVICE COMMISSION ("COMMISSION")?

3 A. Yes. I have testified before the Commission during the Delaware Division's
4 previous Gas Sales Service Rate proceedings, Franchise Fee proceedings, and
5 its Transportation Program proceeding.
6

7 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS
8 PROCEEDING?

9 A. My direct testimony consists of the following subject areas:

10 I. Sales and Revenue for the Test Period

11 II. Proposed Interim Rates

12 III. Cost of Service Internal Cost Studies

13 IV. Tariff Changes
14

15 **I. Sales and Revenue for the Test Period**

16 Q. PLEASE EXPLAIN HOW THE DELAWARE DIVISION'S TEST PERIOD
17 REVENUES, AS SHOWN IN MFR SCHEDULE 3-A, WERE CALCULATED.

18 A. As shown on Schedule No. 3-A-1, Test Year heat sensitive firm revenues have
19 been adjusted to reflect sales levels expected in a normal degree day year and
20 also adjusted to reflect the number of customers projected to be on the
21 distribution system at the end of the Test Period. The determination of a normal
22 degree day year is based upon weather data for a ten-year average of degree

1 days for the months of July 2005 through June 2015. Also, an adjustment was
2 included to reflect a lower cost of gas in the Test Period.

3
4 Q. WERE THERE ANY ADJUSTMENTS DUE TO CUSTOMERS MOVING
5 BETWEEN RATE CLASSES?

6 A. Yes, an additional adjustment was made to reflect the revenue impact of
7 customers moving to different rate schedules during the Test Period. The
8 primary component of this adjustment was related to customers who moved
9 from above-tariff negotiated rates in the Test Year to tariff rate schedules in the
10 Test Period.

11
12 **II. Proposed Interim Rates**

13 Q. WHAT GENERAL GUIDELINES DID THE COMPANY FOLLOW IN DESIGNING
14 ITS PROPOSED INTERIM RATES?

15 A. The Company is proposing to design its interim rates based upon a \$2,500,000
16 increase. For Chesapeake's Delaware Division, according to the Delaware
17 statute under 26 Del. C. §306(c) the maximum amount of revenue allowed under
18 bond is \$2,500,000. Chesapeake's Delaware Division, as demonstrated on
19 Attachment SEH-1, spread this interim rate increase equally to all firm rate
20 classes based on their Delivery Service revenue. The Company did not modify
21 customer charges contained in its Expansion Area rate schedules. Please see
22 Attachment SEH-1 for a summary of the rate derivation and proposed natural

1 gas tariff rates. The Company is proposing these interim rates to become
2 effective with service rendered on and after February 19, 2016 pursuant to 26
3 Del. C. §306(c).

4
5 **III. Cost of Service Internal Cost Studies**

6 Q. IS THE COMPANY SUBMITTING A COST OF SERVICE STUDY IN SUPPORT
7 OF THIS BASE RATE APPLICATION?

8 A. Yes. A Cost of service study is included in this filing and is outlined in the
9 testimony of John D. Taylor of Black & Veatch Corporation.

10
11 Q. DID THE COMPANY PERFORM ANY INTERNAL COST STUDIES RELATED
12 TO ITS COST OF SERVICE?

13 A. Yes. The Company performed several internal cost studies in deriving the
14 external and internal allocators referenced in its cost of service studies. The
15 data included in the cost studies corresponds to the Test Year and Test Period
16 information used in this proceeding. It includes items such as an analysis of
17 plant data by account, operating costs, sales revenue as well as customer usage
18 details.

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IV. Tariff Changes

- Q. ARE THERE ANY PROPOSED CHANGES TO THE COMPANY’S TARIFF THAT YOU WISH TO DISCUSS AT THIS TIME?
- A. Yes. The Company has submitted its proposed natural gas tariff that includes the proposed rates for the firm rate schedules (as outlined in the direct testimony of Ronald Amen of Black & Veatch Corporation), a proposed Revenue Normalization Adjustment (also outlined in the direct testimony of Ronald Amen of Black & Veatch Corporation), proposed modifications to the Company’s curtailment policy, a proposed extension in the bill payment due date from ten (10) days to twenty (20) days, a proposed modification to the Company’s interest rate on customer deposits, and general formatting and clarification changes.
- In addition, the Company is also proposing the following tariff changes, which are described more fully in the direct testimony of Shane E. Breakie:
- a. Multi-Family Housing Program
 - b. Compressed Natural Gas Services
 - c. Poultry House Account Aggregation
- Q. IS THE INFORMATION SET FORTH IN ATTACHMENTS SEH-1 TRUE AND CORRECT TO THE BEST OF YOUR KNOWLEDGE AND BELIEF?
- A. Yes, it is.

1 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

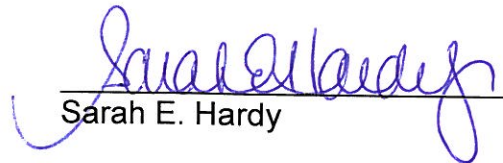
2 A. Yes, it does.

DATED: DECEMBER 21, 2015

STATE OF DELAWARE)
)
COUNTY OF KENT)

AFFIDAVIT OF SARAH E. HARDY

SARAH E. HARDY, being first duly sworn according to law, on oath deposes and says that she is the witness whose testimony appears as "Chesapeake Utilities Corporation, Delaware Division, Direct Testimony of Sarah E. Hardy"; that, if asked the questions which appear in the text of the direct testimony, she would give the answers that are therein set forth; and that she adopts this testimony as her sworn direct testimony in these proceedings.


Sarah E. Hardy

Then personally appeared this 21st day of December 2015 the above-named Sarah E. Hardy and acknowledged the foregoing Testimony to be her free act and deed.
Before me,




Notary Public
My Commission Expires: 7.17.18

Chesapeake Utilities Corporation - Delaware Division
Rate Derivation Model
Proposed Interim Rates
Based on a Rate Increase of \$2,500,000

| Customer Class | Rate Blocks | Volumes (Mcf) | Current Rates | Calculated Delivery Service Revenue | Calculated Rate Increase | 11.41% | Calculated Delivery Service Revenue | Calculated Rates | Proposed Rates | Proposed Delivery Service Revenue | Proposed Rate Increase |
|---------------------------|-------------|---------------|---------------|-------------------------------------|--------------------------|--------|-------------------------------------|------------------|----------------|-----------------------------------|------------------------|
| RS-1 | Customers | 4,147 | \$ 10.500 | \$522,522 | \$59,619 | | \$582,141 | \$11.70 | \$11.75 | \$584,727 | \$62,205 |
| | First 2.0 | 37,145 | \$ 6.070 | \$225,470 | \$25,726 | | \$251,196 | \$6.76 | \$6.75 | \$250,729 | \$25,259 |
| | Next 3.0 | 14,369 | \$ 2.800 | \$40,233 | \$4,591 | | \$44,824 | \$3.12 | \$3.10 | \$44,544 | \$4,311 |
| | Over 5.0 | 3,638 | \$ 1.700 | \$6,185 | \$706 | | \$6,890 | \$1.89 | \$1.90 | \$6,912 | \$728 |
| | RS-1 Total | 55,152 | | \$794,410 | \$90,641 | | \$885,050 | | | \$886,912 | \$92,502 |
| ERS-1 | Customers | 106 | \$ 16.500 | \$20,988 | \$2,395 | | \$23,383 | \$18.38 | \$16.50 | \$20,988 | \$0 |
| | First 2.0 | 1,205 | \$ 6.070 | \$7,314 | \$835 | | \$8,149 | \$6.76 | \$6.75 | \$8,134 | \$819 |
| | Next 3.0 | 687 | \$ 2.800 | \$1,924 | \$219 | | \$2,143 | \$3.12 | \$3.10 | \$2,130 | \$206 |
| | Over 5.0 | 155 | \$ 1.700 | \$264 | \$30 | | \$294 | \$1.89 | \$1.90 | \$295 | \$31 |
| | ERS-1 Total | 2,047 | | \$30,489 | \$3,479 | | \$33,968 | | | \$31,546 | \$1,057 |
| RS-2 | Customers | 38,500 | \$ 13.000 | \$6,006,000 | \$685,272 | | \$6,691,272 | \$14.48 | \$14.50 | \$6,699,000 | \$693,000 |
| | First 2.0 | 697,253 | \$ 5.780 | \$4,030,122 | \$459,829 | | \$4,489,951 | \$6.44 | \$6.45 | \$4,497,282 | \$467,160 |
| | Next 3.0 | 646,763 | \$ 3.190 | \$2,063,174 | \$235,404 | | \$2,298,578 | \$3.55 | \$3.55 | \$2,296,009 | \$232,835 |
| | Over 5.0 | 1,162,821 | \$ 1.320 | \$1,534,924 | \$175,132 | | \$1,710,055 | \$1.47 | \$1.45 | \$1,686,090 | \$151,167 |
| | RS-2 Total | 2,506,837 | | \$13,634,220 | \$1,555,636 | | \$15,189,856 | | | \$15,178,381 | \$1,544,161 |
| ERS-2 | Customers | 465 | \$ 31.750 | \$177,165 | \$20,214 | | \$197,379 | \$35.37 | \$31.75 | \$177,165 | \$0 |
| | First 2.0 | 7,296 | \$ 5.780 | \$42,171 | \$4,812 | | \$46,982 | \$6.44 | \$6.45 | \$47,059 | \$4,888 |
| | Next 3.0 | 8,065 | \$ 3.190 | \$25,727 | \$2,935 | | \$28,663 | \$3.55 | \$3.55 | \$28,631 | \$2,903 |
| | Over 5.0 | 14,957 | \$ 1.320 | \$19,743 | \$2,253 | | \$21,996 | \$1.47 | \$1.45 | \$21,688 | \$1,944 |
| | ERS-2 Total | 30,318 | | \$264,806 | \$30,214 | | \$295,020 | | | \$274,543 | \$9,736 |
| Total Residential Service | | 2,594,354 | | \$14,723,926 | \$1,679,969 | | \$16,403,895 | | | \$16,371,381 | \$1,647,455 |
| GS | Customers | 2,851 | \$ 26.000 | \$889,512 | \$101,491 | | \$991,003 | \$28.97 | \$28.95 | \$990,437 | \$100,925 |
| | First 2.0 | 38,391 | \$ 4.470 | \$171,608 | \$19,580 | | \$191,188 | \$4.98 | \$4.95 | \$190,035 | \$18,428 |
| | Next 3.0 | 42,030 | \$ 2.780 | \$116,843 | \$13,332 | | \$130,175 | \$3.10 | \$3.10 | \$130,293 | \$13,450 |
| | Over 5.0 | 196,103 | \$ 1.400 | \$274,544 | \$31,325 | | \$305,869 | \$1.56 | \$1.55 | \$303,960 | \$29,415 |
| | GS Total | 276,524 | | \$1,452,507 | \$165,728 | | \$1,618,235 | | | \$1,614,726 | \$162,218 |
| EGS | Customers | 15 | \$ 56.000 | \$10,080 | \$1,150 | | \$11,230 | \$62.39 | \$56.00 | \$10,080 | \$0 |
| | First 2.0 | 173 | \$ 4.470 | \$773 | \$88 | | \$862 | \$4.98 | \$5.00 | \$865 | \$92 |
| | Next 3.0 | 205 | \$ 2.780 | \$570 | \$65 | | \$635 | \$3.10 | \$3.10 | \$636 | \$66 |
| | Over 5.0 | 1,022 | \$ 1.400 | \$1,431 | \$163 | | \$1,594 | \$1.56 | \$1.60 | \$1,635 | \$204 |
| | EGS Total | 1,400 | | \$12,854 | \$1,467 | | \$14,321 | | | \$13,216 | \$362 |
| MVS | Customers | 484 | \$ 65.000 | \$377,520 | \$43,074 | | \$420,594 | \$72.42 | \$72.40 | \$420,499 | \$42,979 |
| | First 20.0 | 84,272 | \$ 2.270 | \$191,297 | \$21,827 | | \$213,124 | \$2.53 | \$2.50 | \$210,680 | \$19,383 |
| | Over 20.0 | 266,184 | \$ 1.150 | \$306,112 | \$34,927 | | \$341,038 | \$1.28 | \$1.25 | \$332,730 | \$26,618 |
| | MVS Total | 350,456 | | \$874,929 | \$99,828 | | \$974,757 | | | \$963,909 | \$88,980 |
| EMVS | Customers | 3 | \$ 158.750 | \$5,715 | \$652 | | \$6,367 | \$176.86 | \$158.75 | \$5,715 | \$0 |
| | First 20.0 | 473 | \$ 2.270 | \$1,074 | \$123 | | \$1,196 | \$2.53 | \$2.50 | \$1,183 | \$109 |
| | Over 20.0 | 1,935 | \$ 1.150 | \$2,225 | \$254 | | \$2,479 | \$1.28 | \$1.25 | \$2,419 | \$194 |
| | EMVS Total | 2,408 | | \$9,014 | \$1,028 | | \$10,042 | | | \$9,316 | \$302 |
| LVS | Customers | 205 | \$ 125.000 | \$307,500 | \$35,085 | | \$342,585 | \$139.26 | \$139.25 | \$342,555 | \$35,055 |
| | First 100.0 | 186,282 | \$ 3.260 | \$607,279 | \$69,289 | | \$676,569 | \$3.63 | \$3.60 | \$670,615 | \$63,336 |
| | Over 100.0 | 1,424,712 | \$ 0.830 | \$1,182,509 | \$134,922 | | \$1,317,431 | \$0.92 | \$0.90 | \$1,282,241 | \$99,732 |
| LVS Total | | 1,610,994 | | \$2,097,288 | \$239,296 | | \$2,336,585 | | | \$2,295,411 | \$198,123 |

Chesapeake Utilities Corporation - Delaware Division
Rate Derivation Model
Proposed Interim Rates
Based on a Rate Increase of \$2,500,000

| Customer Class | Rate Blocks | Volumes (Mcf) | Current Rates | Calculated Delivery Service Revenue | Calculated Rate Increase | 11.41% | Calculated Delivery Service Revenue | Calculated Rates | Proposed Rates | Proposed Delivery Service Revenue | Proposed Rate Increase |
|--------------------------------------|-----------------|---------------|---------------|-------------------------------------|--------------------------|--------|-------------------------------------|------------------|----------------|-----------------------------------|------------------------|
| HLFS | Customers | 310 | \$ 75.000 | \$279,000 | \$31,833 | | \$310,833 | \$83.56 | \$83.55 | \$310,806 | \$31,806 |
| | All Consumption | 2,828,481 | \$ 0.870 | \$2,460,780 | \$280,770 | | \$2,741,550 | \$0.97 | \$1.00 | \$2,828,481 | \$367,701 |
| HLFS Total | | 2,828,481 | | \$2,739,780 | \$312,603 | | \$3,052,384 | | | \$3,139,287 | \$399,507 |
| NCR-1 | Customers | 1 | \$ 125.000 | \$1,500 | \$0 | | \$1,500 | \$125.00 | \$139.25 | \$1,671 | \$171 |
| | All Consumption | 2,167 | \$ 5.250 | \$11,377 | \$0 | | \$11,377 | \$5.25 | \$5.25 | \$11,377 | \$0 |
| NCR-1 Total | | 2,167 | | \$12,877 | \$0 | | \$12,877 | | | \$13,048 | \$171 |
| NCR-2 | Customers | 2 | \$ 75.000 | \$1,800 | \$0 | | \$1,800 | \$75.00 | \$83.55 | \$2,005 | \$205 |
| | All Consumption | 3,250 | \$ 2.950 | \$9,588 | \$0 | | \$9,588 | \$2.95 | \$2.95 | \$9,588 | \$0 |
| NCR-2 Total | | 3,250 | | \$11,388 | \$0 | | \$11,388 | | | \$11,593 | \$205 |
| NCR-3 | Customers | 2 | \$ 26.000 | \$624 | \$0 | | \$624 | \$26.00 | \$28.95 | \$695 | \$71 |
| | All Consumption | 742 | \$ 5.250 | \$3,896 | \$0 | | \$3,896 | \$5.25 | \$5.25 | \$3,896 | \$0 |
| NCR-3 Total | | 742 | | \$4,520 | \$0 | | \$4,520 | | | \$4,590 | \$71 |
| NCR-4 | Customers | 2 | \$ 65.000 | \$1,560 | \$0 | | \$1,560 | \$65.00 | \$72.40 | \$1,738 | \$178 |
| | All Consumption | 775 | \$ 5.250 | \$4,069 | \$0 | | \$4,069 | \$5.25 | \$5.25 | \$4,069 | \$0 |
| NCR-4 Total | | 775 | | \$5,629 | \$0 | | \$5,629 | | | \$5,807 | \$178 |
| NCR-5 | Customers | 1 | \$ 125.000 | \$1,500 | \$0 | | \$1,500 | \$125.00 | \$139.25 | \$1,671 | \$171 |
| | All Consumption | 693 | \$ 5.250 | \$3,638 | \$0 | | \$3,638 | \$5.25 | \$5.25 | \$3,638 | \$0 |
| NCR-5 Total | | 693 | | \$5,138 | \$0 | | \$5,138 | | | \$5,309 | \$171 |
| NCR-6 | Customers | 2 | \$ 75.000 | \$1,800 | \$0 | | \$1,800 | \$75.00 | \$83.55 | \$2,005 | \$205 |
| | All Consumption | 16,125 | \$ 5.250 | \$84,656 | \$0 | | \$84,656 | \$5.25 | \$5.25 | \$84,656 | \$0 |
| NCR-6 Total | | 16,125 | | \$86,456 | \$0 | | \$86,456 | | | \$86,661 | \$205 |
| NCR-7 | Customers | 1 | \$ 75.000 | \$900 | \$0 | | \$900 | \$75.00 | \$83.55 | \$1,003 | \$103 |
| | All Consumption | 2,623 | \$ 9.600 | \$25,181 | \$0 | | \$25,181 | \$9.60 | \$9.60 | \$25,181 | \$0 |
| NCR-7 Total | | 2,623 | | \$26,081 | \$0 | | \$26,081 | | | \$26,184 | \$103 |
| GL | Customers | 5 | \$ 11.750 | \$705 | \$80 | | \$785 | \$13.09 | \$11.75 | \$705 | \$0 |
| GL Total | | 5 | | \$705 | \$80 | | \$785 | | | \$705 | \$0 |
| Total Commercial/ Industrial Service | | 5,096,638 | | \$7,338,461 | \$819,950 | | \$8,158,411 | | | \$8,189,056 | \$850,596 |
| Total Firm Delivery Service | | 7,690,997 | | \$22,063,092 | \$2,500,000 | | \$24,563,092 | | | \$24,561,143 | \$2,498,051 |

Chesapeake Utilities Corporation - Delaware Division
Comparison of Current and Proposed Revenue
Proposed Interim Rates
Based on a Rate Increase of \$2,500,000

| Customer Class | Rate Blocks | Calculated Delivery Service Revenue | Final Customers & Billing Adjustments | Actual Delivery Service Revenue | Actual Gas Sales Service Revenue | Actual Total Revenue | Proposed Delivery Service Revenue | Final Customers & Billing Adjustments | Total Proposed Delivery Service Revenue | Actual Gas Sales Service Revenue | Total Revenue After Increase | % Revenue Increase |
|---------------------------|-----------------|-------------------------------------|---------------------------------------|---------------------------------|----------------------------------|----------------------|-----------------------------------|---------------------------------------|---|----------------------------------|------------------------------|--------------------|
| RS-1 | Customers | \$522,522 | (\$18) | \$522,504 | \$0 | \$522,504 | \$584,727 | (\$18) | \$584,709 | \$0 | \$584,709 | |
| | First 2.0 | \$225,470 | (\$8) | \$225,462 | \$253,720 | \$479,182 | \$250,729 | (\$8) | \$250,721 | \$253,720 | \$504,441 | |
| | Next 3.0 | \$40,233 | (\$1) | \$40,232 | \$98,148 | \$138,380 | \$44,544 | (\$1) | \$44,542 | \$98,148 | \$142,690 | |
| | Over 5.0 | \$6,185 | (\$0) | \$6,184 | \$24,849 | \$31,034 | \$6,912 | (\$0) | \$6,912 | \$24,849 | \$31,761 | |
| RS-1 Total | | \$794,410 | (\$28) | \$794,382 | \$376,717 | \$1,171,099 | \$886,912 | (\$28) | \$886,884 | \$376,717 | \$1,263,601 | 7.90% |
| ERS-1 | Customers | \$20,988 | \$11 | \$20,999 | \$0 | \$20,999 | \$20,988 | \$11 | \$20,999 | \$0 | \$20,999 | |
| | First 2.0 | \$7,314 | \$4 | \$7,318 | \$8,231 | \$15,550 | \$8,134 | \$4 | \$8,138 | \$8,231 | \$16,369 | |
| | Next 3.0 | \$1,924 | \$1 | \$1,925 | \$4,693 | \$6,617 | \$2,130 | \$1 | \$2,131 | \$4,693 | \$6,824 | |
| | Over 5.0 | \$264 | \$0 | \$264 | \$1,059 | \$1,322 | \$295 | \$0 | \$295 | \$1,059 | \$1,353 | |
| ERS-1 Total | | \$30,489 | \$16 | \$30,505 | \$13,983 | \$44,488 | \$31,546 | \$16 | \$31,562 | \$13,983 | \$45,545 | 2.37% |
| RS-2 | Customers | \$6,006,000 | (\$22) | \$6,005,978 | \$0 | \$6,005,978 | \$6,699,000 | (\$22) | \$6,698,978 | \$0 | \$6,698,978 | |
| | First 2.0 | \$4,030,122 | (\$15) | \$4,030,107 | \$4,762,538 | \$8,792,646 | \$4,497,282 | (\$15) | \$4,497,267 | \$4,762,538 | \$9,259,805 | |
| | Next 3.0 | \$2,063,174 | (\$8) | \$2,063,166 | \$4,417,670 | \$6,480,836 | \$2,296,009 | (\$8) | \$2,296,001 | \$4,417,670 | \$6,713,671 | |
| | Over 5.0 | \$1,534,924 | (\$6) | \$1,534,918 | \$7,942,569 | \$9,477,487 | \$1,686,090 | (\$6) | \$1,686,085 | \$7,942,569 | \$9,628,653 | |
| RS-2 Total | | \$13,634,220 | (\$51) | \$13,634,169 | \$17,122,777 | \$30,756,946 | \$15,178,381 | (\$51) | \$15,178,330 | \$17,122,777 | \$32,301,107 | 5.02% |
| ERS-2 | Customers | \$177,165 | \$61 | \$177,226 | \$0 | \$177,226 | \$177,165 | \$61 | \$177,226 | \$0 | \$177,226 | |
| | First 2.0 | \$42,171 | \$14 | \$42,185 | \$49,833 | \$92,018 | \$47,059 | \$14 | \$47,074 | \$49,833 | \$96,907 | |
| | Next 3.0 | \$25,727 | \$9 | \$25,736 | \$55,085 | \$80,821 | \$28,631 | \$9 | \$28,640 | \$55,085 | \$83,725 | |
| | Over 5.0 | \$19,743 | \$7 | \$19,750 | \$102,159 | \$121,909 | \$21,688 | \$7 | \$21,694 | \$102,159 | \$123,853 | |
| ERS-2 Total | | \$264,806 | \$91 | \$264,897 | \$207,077 | \$471,974 | \$274,543 | \$91 | \$274,634 | \$207,077 | \$481,711 | 2.06% |
| Total Residential Service | | \$14,723,926 | \$28 | \$14,723,954 | \$17,720,554 | \$32,444,508 | \$16,371,381 | \$28 | \$16,371,409 | \$17,720,554 | \$34,091,963 | 5.08% |
| GS | Customers | \$889,512 | (\$208) | \$889,304 | \$0 | \$889,304 | \$990,437 | (\$208) | \$990,229 | \$0 | \$990,229 | |
| | First 2.0 | \$171,608 | (\$40) | \$171,568 | \$254,810 | \$426,377 | \$190,035 | (\$40) | \$189,995 | \$254,810 | \$444,805 | |
| | Next 3.0 | \$116,843 | (\$27) | \$116,816 | \$278,963 | \$395,779 | \$130,293 | (\$27) | \$130,266 | \$278,963 | \$409,228 | |
| | Over 5.0 | \$274,544 | (\$64) | \$274,480 | \$1,301,580 | \$1,576,060 | \$303,960 | (\$64) | \$303,895 | \$1,301,580 | \$1,605,476 | |
| GS Total | | \$1,452,507 | (\$340) | \$1,452,167 | \$1,835,353 | \$3,287,520 | \$1,614,726 | (\$340) | \$1,614,386 | \$1,835,353 | \$3,449,739 | 4.93% |
| EGS | Customers | \$10,080 | \$43 | \$10,123 | \$0 | \$10,123 | \$10,080 | \$43 | \$10,123 | \$0 | \$10,123 | |
| | First 2.0 | \$773 | \$3 | \$777 | \$924 | \$1,700 | \$865 | \$3 | \$868 | \$924 | \$1,792 | |
| | Next 3.0 | \$570 | \$2 | \$572 | \$1,094 | \$1,667 | \$636 | \$2 | \$638 | \$1,094 | \$1,732 | |
| | Over 5.0 | \$1,431 | \$6 | \$1,437 | \$5,456 | \$6,893 | \$1,635 | \$6 | \$1,641 | \$5,456 | \$7,097 | |
| EGS Total | | \$12,854 | \$55 | \$12,909 | \$7,474 | \$20,383 | \$13,216 | \$55 | \$13,271 | \$7,474 | \$20,745 | 1.77% |
| MVS | Customers | \$377,520 | \$252 | \$377,772 | \$0 | \$377,772 | \$420,499 | \$252 | \$420,751 | \$0 | \$420,751 | |
| | First 20.0 | \$191,297 | \$128 | \$191,425 | \$466,477 | \$657,902 | \$210,680 | \$128 | \$210,808 | \$466,477 | \$677,284 | |
| | Over 20.0 | \$306,112 | \$204 | \$306,316 | \$1,473,426 | \$1,779,742 | \$332,730 | \$204 | \$332,934 | \$1,473,426 | \$1,806,361 | |
| MVS Total | | \$874,929 | \$584 | \$875,513 | \$1,939,903 | \$2,815,416 | \$963,909 | \$584 | \$964,493 | \$1,939,903 | \$2,904,396 | 3.16% |
| EMVS | Customers | \$5,715 | \$302 | \$6,017 | \$0 | \$6,017 | \$5,715 | \$302 | \$6,017 | \$0 | \$6,017 | |
| | First 20.0 | \$1,074 | \$57 | \$1,131 | \$213 | \$1,343 | \$1,183 | \$57 | \$1,239 | \$213 | \$1,452 | |
| | Over 20.0 | \$2,225 | \$118 | \$2,343 | \$870 | \$3,213 | \$2,419 | \$118 | \$2,537 | \$870 | \$3,407 | |
| EMVS Total | | \$9,014 | \$477 | \$9,491 | \$1,083 | \$10,574 | \$9,316 | \$477 | \$9,793 | \$1,083 | \$10,876 | 2.86% |
| LVS | Customers | \$307,500 | \$56 | \$307,556 | \$0 | \$307,556 | \$342,555 | \$56 | \$342,611 | \$0 | \$342,611 | |
| | First 100.0 | \$607,279 | \$110 | \$607,389 | \$186,323 | \$793,713 | \$670,615 | \$110 | \$670,725 | \$186,323 | \$857,049 | |
| | Over 100.0 | \$1,182,509 | \$214 | \$1,182,723 | \$1,425,029 | \$2,607,752 | \$1,282,241 | \$214 | \$1,282,455 | \$1,425,029 | \$2,707,484 | |
| LVS Total | | \$2,097,288 | \$380 | \$2,097,668 | \$1,611,352 | \$3,709,020 | \$2,295,411 | \$380 | \$2,295,791 | \$1,611,352 | \$3,907,143 | 5.34% |
| HLFS | Customers | \$279,000 | (\$158) | \$278,842 | \$0 | \$278,842 | \$310,806 | (\$158) | \$310,648 | \$0 | \$310,648 | |
| | All Consumption | \$2,460,780 | (\$1,389) | \$2,459,391 | \$1,237,914 | \$3,697,305 | \$2,828,481 | (\$1,389) | \$2,827,092 | \$1,237,914 | \$4,065,006 | |
| HLFS Total | | \$2,739,780 | (\$1,547) | \$2,738,233 | \$1,237,914 | \$3,976,147 | \$3,139,287 | (\$1,547) | \$3,137,740 | \$1,237,914 | \$4,375,654 | 10.05% |

| | | | | | | | | | | | | |
|--------------------------------------|-----------------|--------------|-----------|--------------|--------------|--------------|--------------|-----------|--------------|--------------|--------------|-------|
| NCR-1 | Customers | \$1,500 | \$0 | \$1,500 | \$0 | \$1,500 | \$1,671 | \$0 | \$1,671 | \$0 | \$1,671 | |
| | All Consumption | \$11,377 | \$0 | \$11,377 | \$0 | \$11,377 | \$11,377 | \$0 | \$11,377 | \$0 | \$11,377 | |
| NCR-1 Total | | \$12,877 | \$0 | \$12,877 | \$0 | \$12,877 | \$13,048 | \$0 | \$13,048 | \$0 | \$13,048 | 1.33% |
| NCR-2 | Customers | \$1,800 | \$0 | \$1,800 | \$0 | \$1,800 | \$2,005 | \$0 | \$2,005 | \$0 | \$2,005 | |
| | All Consumption | \$9,588 | \$0 | \$9,588 | \$0 | \$9,588 | \$9,588 | \$0 | \$9,588 | \$0 | \$9,588 | |
| NCR-2 Total | | \$11,388 | \$0 | \$11,388 | \$0 | \$11,388 | \$11,593 | \$0 | \$11,593 | \$0 | \$11,593 | 1.80% |
| NCR-3 | Customers | \$624 | \$0 | \$624 | \$0 | \$624 | \$695 | \$0 | \$695 | \$0 | \$695 | |
| | All Consumption | \$3,896 | \$0 | \$3,896 | \$0 | \$3,896 | \$3,896 | \$0 | \$3,896 | \$0 | \$3,896 | |
| NCR-3 Total | | \$4,520 | \$0 | \$4,520 | \$0 | \$4,520 | \$4,590 | \$0 | \$4,590 | \$0 | \$4,590 | 1.57% |
| NCR-4 | Customers | \$1,560 | \$0 | \$1,560 | \$0 | \$1,560 | \$1,738 | \$0 | \$1,738 | \$0 | \$1,738 | |
| | All Consumption | \$4,069 | \$0 | \$4,069 | \$0 | \$4,069 | \$4,069 | \$0 | \$4,069 | \$0 | \$4,069 | |
| NCR-4 Total | | \$5,629 | \$0 | \$5,629 | \$0 | \$5,629 | \$5,807 | \$0 | \$5,807 | \$0 | \$5,807 | 3.16% |
| NCR-5 | Customers | \$1,500 | \$0 | \$1,500 | \$0 | \$1,500 | \$1,671 | \$0 | \$1,671 | \$0 | \$1,671 | |
| | All Consumption | \$3,638 | \$0 | \$3,638 | \$0 | \$3,638 | \$3,638 | \$0 | \$3,638 | \$0 | \$3,638 | |
| NCR-5 Total | | \$5,138 | \$0 | \$5,138 | \$0 | \$5,138 | \$5,309 | \$0 | \$5,309 | \$0 | \$5,309 | 3.33% |
| NCR-6 | Customers | \$1,800 | | \$1,800 | \$0 | \$1,800 | \$2,005 | \$0 | \$2,005 | \$0 | \$2,005 | |
| | All Consumption | \$84,656 | (\$2,245) | \$82,411 | \$0 | \$82,411 | \$84,656 | (\$2,245) | \$82,411 | \$0 | \$82,411 | |
| NCR-6 Total | | \$86,456 | (\$2,245) | \$84,211 | \$0 | \$84,211 | \$86,661 | (\$2,245) | \$84,416 | \$0 | \$84,416 | 0.24% |
| NCR-7 | Customers | \$900 | \$0 | \$900 | \$0 | \$900 | \$1,003 | \$0 | \$1,003 | \$0 | \$1,003 | |
| | All Consumption | \$25,181 | \$0 | \$25,181 | \$0 | \$25,181 | \$25,181 | \$0 | \$25,181 | \$0 | \$25,181 | |
| NCR-7 Total | | \$26,081 | \$0 | \$26,081 | \$0 | \$26,081 | \$26,184 | \$0 | \$26,184 | \$0 | \$26,184 | 0.39% |
| GL | Customers | \$705 | \$0 | \$705 | \$180 | \$885 | \$705 | \$0 | \$705 | \$180 | \$885 | |
| GL Total | | \$705 | \$0 | \$705 | \$180 | \$885 | \$705 | \$0 | \$705 | \$180 | \$885 | 0.00% |
| Total Commercial/ Industrial Service | | \$7,338,461 | (\$2,636) | \$7,335,825 | \$6,633,079 | \$13,968,904 | \$8,189,056 | (\$2,636) | \$8,186,420 | \$6,633,079 | \$14,819,499 | 6.09% |
| Total Firm Revenue | | \$22,063,092 | (\$2,608) | \$22,060,484 | \$24,353,813 | \$46,414,297 | \$24,561,143 | (\$2,608) | \$24,558,535 | \$24,353,813 | \$48,912,348 | 5.38% |

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION OF)
CHESAPEAKE UTILITIES CORPORATION)
FOR A GENERAL INCREASE IN ITS)
NATURAL GAS RATES AND FOR) P.S.C. DOCKET NO. 15-
APPROVAL OF CERTAIN OTHER)
CHANGES TO ITS NATURAL GAS TARIFF)

DIRECT TESTIMONY OF MATTHEW M. EVERNGAM

On Behalf of Chesapeake Utilities Corporation

Delaware Division.

Submitted for filing: December 21, 2015

1 Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

2 A. My name is Matthew M. Everngam and I am a Regulatory Analyst III with
3 Chesapeake Utilities Corporation. My business address is 350 S. Queen
4 Street, Dover, Delaware 19904. I support the Company's natural gas
5 distribution businesses in Delaware and Maryland, as well as Sandpiper
6 Energy, Inc. ("Sandpiper") in Maryland.

7

8 Q. DESCRIBE BRIEFLY YOUR EDUCATION AND RELEVANT PROFESSIONAL
9 BACKGROUND.

10 A. I received a Bachelor of Science degree in Business Administration and a
11 Masters of Business Administration from Salisbury University in Salisbury, MD.
12 I was hired by Chesapeake as a Regulatory Analyst II in October 2010. As a
13 Regulatory Analyst III, I have primarily been involved in the areas of gas cost
14 recovery, rate of return analysis, and budgeting for Sandpiper Energy Inc. and
15 Chesapeake Utilities – Delaware & Maryland natural gas distribution divisions.
16 I have also performed economic analysis related to capital expenditure
17 projects. Prior to joining Chesapeake, I was employed by Edward Jones
18 Investments as a Financial Advisor. In this position I held Series 7 and Series
19 66 licenses with the National Association of Securities Dealers ("NASD").

20

21 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS
22 PROCEEDING?

23 A. The purpose of my testimony is to provide support for the following subject

1 areas:

2 I. Derivation of Rate Base

3

4 **I. Derivation of Rate Base**

5 Q. PLEASE DESCRIBE THE COMPONENTS OF CHESAPEAKE UTILITIES
6 CORPORATION – DELAWARE DIVISION'S ("COMPANY") RATE BASE FOR
7 THE TEST YEAR.

8 A. The Company's actual Rate Base for the test year is comprised of the actual
9 average balances for the period ended June 30, 2015 (except for Investor
10 Supplied Cash Working Capital, which is based on average lead and lag days
11 for cash receipts and disbursements). The components of average rate base
12 per Schedule No. 2 are:

13

14 1) Gas Plant in Service – 13 month avg for the period ended June 30, 2015

15 2) Accumulated Depreciation – 13 month avg for the period ended June 30, 2015

16 3) Construction Work in Process – 13 month avg for the period ended June 30, 2015

17 4) Materials and Supplies– 13 month avg for the period ended June 30, 2015

18 5) Investor Supplied Cash Working Capital – Based on avg lead and lag days for cash
19 receipts and operating expense disbursements

20 6) Accumulated Deferred Income Taxes – Average of the balances of June 30, 2014
21 and June 30, 2015

22 7) Customer Deposits - 13 month avg for the period ended June 30, 2015

1 8) Customer Advances for Construction - 13 month avg for the period ended June 30,
2 2015

3 9) Unamortized Investment Tax Credits - 13 month avg for the period ended June 30,
4 2015

5 10) Deferred Debits (Behind the Meter Conversion Costs) - 13 month avg for the
6 period ended June 30, 2015

7

8 Q. ARE THE COMPONENTS THE SAME FOR THE TEST PERIOD ENDING
9 March 31, 2016?

10 A. Yes, the components in Rate Base are the same for the actual year ended June
11 30, 2015 and for the Test Period ending March 31, 2016.

12

13 Q. WHAT IS THE COMPANY'S CALCULATED AVERAGE RATE BASE FOR
14 THE TEST PERIOD CONTAINED IN THIS APPLICATION?

15 A. The calculated average rate base for the test period is \$70,938,749.

16

17 Q. HOW WAS TEST PERIOD TOTAL PLANT IN SERVICE CALCULATED?

18 A. The Test Period Plant in Service balance is based on a forecasted thirteen-
19 month average. Actual month end balances were used for the months of March
20 2015 through June 2015. For the test period months of July 2015 through
21 March 2016 forecasted amounts were used. Accumulated depreciation
22 balances for the test period were deducted from the gross plant in service to
23 arrive at total plant in service.

1 Q. HOW WAS TEST PERIOD ACCUMULATED DEPRECIATION
2 CALCULATED?

3 A. The Test Period Accumulated Depreciation balance is based on a forecasted
4 thirteen-month average. Actual month end balances, were used for the months
5 of March 2015 through June 2015. Forecasted amounts for July 2015 through
6 March 2016 were used. The forecasted Plant in Service balances, described
7 above, were used to calculate depreciation expense for the months from July
8 2015 through March 31, 2016. The depreciation expense for July 2015 through
9 March 2016 was then added to each month's accumulated depreciation
10 balance.

11

12 Q. HOW WERE THE TEST PERIOD ACCUMULATED DEFERRED INCOME
13 TAXES CALCULATED?

14 A. The Company calculated the Test Period Accumulated Deferred Income Taxes
15 by averaging the March 31, 2015 balances and the adjusted balances at March
16 31, 2016. Please see the testimony of Lisa Elder for a description of the test
17 period adjustments and calculation of deferred income taxes.

18

19 Q. HOW WERE TEST PERIOD CUSTOMER DEPOSITS CALCULATED?

20 A. The Test Period Customer Deposit balance is based on a forecasted thirteen-
21 month average. Actual month end balances were used for the months of March
22 2015 through June 2015 and forecasted amounts for July 2015 through March

1 2016. The forecast was based on the growth rate in customer deposits during
2 the test year.

3

4 Q. WHAT ARE THE COMPONENTS OF THE RATE BASE ITEM ENTITLED
5 “MATERIALS AND SUPPLIES”?

6 A. The Rate Base item entitled “Materials and Supplies” is comprised of Propane
7 Storage and Plant Materials and Supplies. Both of these components are
8 based upon a thirteen-month average.

9

10 Q. HOW WERE TEST PERIOD PROPANE STORAGE AND PLANT MATERIALS
11 AND SUPPLIES CALCULATED?

12 A. The balances for both of these items are based on a forecasted thirteen-month
13 average. Actual month end balances were used for the months of March 2015
14 through June 2015. Projected amounts were used for July 2015 through March
15 2016 account balances.

16

17 Q. HOW WAS TEST PERIOD INVESTOR SUPPLIED CASH WORKING
18 CAPITAL CALCULATED?

19 A. The investor supplied cash working capital component of rate base is
20 calculated by subtracting the weighted average lag days for cash
21 disbursements from the weighted average lag days for cash receipts from the
22 collection of revenue. The resulting net lag days were multiplied by the average
23 daily cash disbursements to arrive at the cash working capital requirement.

1 Q. PLEASE DISCUSS THE SCHEDULE THAT SETS FORTH THE DETAILS OF
2 THE INVESTOR SUPPLIED CASH WORKING CAPITAL CALCULATIONS.

3 A. Schedule No. 2-D develops the total amount of cash working capital applicable
4 to the test period ended March 31, 2016. The necessity for cash working capital
5 results from the fact that the lag in the Company's collection of revenue after
6 service has been rendered is greater than the lag in the Company's payment
7 of expenses. The first line of the exhibit shows the lag of collection of revenue.
8 This was derived from a study of the lag in revenue based upon the twelve (12)
9 months ended June 2015. Lines 2 through 7 show the various operating
10 expense categories projected to be incurred during the test period. The
11 operating expenses include the adjustments the Company is proposing. The
12 average lag days for operating expenses is 9.03 days less per Line 8. Line 10
13 shows the average daily cash disbursements to be \$43,239. This is calculated
14 by dividing operating expenses by 365 days. The cash working capital shown
15 on Line 11 is calculated by multiplying the average daily cash disbursement by
16 weighted net lag days.

17

18 Q. WHAT ELEMENTS MAKE UP THE AVERAGE LAG IN COLLECTION OF
19 REVENUES FROM CUSTOMERS?

20 A. There are three (3) elements that make up the revenue lag. The first is the
21 average number of days service has been supplied before the meter is read.
22 The second is the average number of days for the meter to be read, the bill

1 prepared and the bill mailed to the customer. The third element is the average
2 lag in days from the time the customer's bill is mailed and payment is received.

3

4 Q. WHAT ELEMENTS MAKE UP THE AVERAGE LAG IN THE PAYMENT OF
5 OPERATING EXPENSES?

6 A. Lines 2 through 7 show the various classes of operating expenses. Each class
7 of expense is multiplied by lag days calculated for test period costs. The sum
8 of the dollar days is divided by the sum of the adjusted test period expenses to
9 determine the combined weighted average number of lag days.

10

11 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

12 A. Yes, it does.

DATED: DECEMBER 21, 2015

STATE OF DELAWARE)
)
COUNTY OF KENT)

AFFIDAVIT OF MATTHEW M. EVERNGAM

MATTHEW M. EVERNGAM, being first duly sworn according to law, on oath deposes and says that he is the witness whose testimony appears as "Chesapeake Utilities Corporation, Delaware Division, Direct Testimony of Matthew M. Everngam"; that, if asked the questions which appear in the text of the direct testimony, he would give the answers that are therein set forth; and that he adopts this testimony as his sworn direct testimony in these proceedings.


Matthew M. Everngam

Then personally appeared this 21st day of December 2015 the above-named Matthew M. Everngam and acknowledged the foregoing Testimony to be his free act and deed. Before me,




Notary Public
My Commission Expires: 7.17.18

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION

| | |
|---------------------------------------|--------------------|
| IN THE MATTER OF THE APPLICATION OF) | |
| CHESAPEAKE UTILITIES CORPORATION) | |
| FOR A GENERAL INCREASE IN ITS) | PSC DOCKET NO. 15- |
| NATURAL GAS RATES AND FOR) | |
| APPROVAL OF CERTAIN OTHER) | |
| CHANGES TO ITS NATURAL GAS TARIFF) | |

DIRECT TESTIMONY OF JEFFREY WEISS

On Behalf of Chesapeake Utilities Corporation

Delaware Division

Submitted for filing: December 21, 2015

1 Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

2 A. My name is Jeffrey Weiss and I am a Regulatory Analyst with Chesapeake
3 Utilities Corporation ("Chesapeake" or the "Company"). My business address is
4 350 S. Queen Street, Dover, Delaware 19904.

5

6 Q. DESCRIBE BRIEFLY YOUR EDUCATION AND RELEVANT PROFESSIONAL
7 BACKGROUND.

8 A. I received a Bachelor of Science degree in Accounting from Wesley College in
9 Dover, DE, in 2007. In 2009, I received a Master's of Business Administration
10 from Wesley College. I was hired by Chesapeake as a Regulatory Analyst I in
11 August 2013, and promoted to a Regulatory Analyst II in October 2014. As a
12 Regulatory Analyst II, I have primarily been involved in the areas of gas cost
13 recovery, rate of return analysis, and budgeting for the Maryland natural gas
14 distribution division. I have also performed economic analysis related to capital
15 expenditure projects. Prior to joining Chesapeake's regulatory team, I was
16 employed as an Internal Auditor for the Company from May 2007 until August
17 2013. My duties as an internal auditor included performing financial, operational
18 and procedural audits for the Company in addition to ensuring the Company's
19 ongoing compliance with the Sarbanes-Oxley Act.

20

21 Q. HAVE YOU PREVIOUSLY TESTIFIED IN RATE PROCEEDINGS?

22 A. No, I have not previously testified before the Delaware Public Service
23 Commission. However, I have testified on behalf of Chesapeake Utilities -

1 Maryland Division before the Maryland Public Service Commission in purchased
2 gas adjustment proceedings. In addition, I currently have testimony pending in a
3 base rate proceeding before the Maryland Public Service Commission for
4 Sandpiper Energy, Inc., a wholly owned subsidiary of Chesapeake.

5
6 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS
7 PROCEEDING?

8 A. The purpose of my testimony is to describe and support the test period
9 adjustments relating to the Delaware Division's operation, maintenance and
10 depreciation expenses as well as the taxes other than income for the business
11 unit departments only. The adjustments relating to corporate departments are
12 included in the direct testimony of Matthew Dewey. In addition, I describe and
13 support the Main Extension aggregated internal rate of return model ("IRRM")
14 prepared in accordance with the proposed settlement from the Company's
15 previous base rate proceeding, as approved by the PSC in Order No. 7434,
16 dated September 2, 2008, in Docket No. 07-186 ("2008 Settlement Agreement").

17
18 Q. DO YOU SPONSOR ANY ATTACHMENTS IN SUPPORT OF YOUR
19 TESTIMONY?

20 A. Yes. I sponsor three (3) attachments, which supports my testimony. The
21 adjustments to the operating, maintenance and depreciation expenses as well
22 as the taxes other than income for the business unit departments are supported
23 by the Schedules included in this filing. Attachment JW-1 summarizes the

1 operating expenses as adjusted, which I will explain in more detail below.
2 Attachment JW-2 summarizes the total capital investments in mains, meters and
3 service installations as well as the average margin per customer and customer
4 additions by rate class for the time period of April 1, 2007 through September
5 24, 2015. Attachment JW-3 shows the inputs and corresponding results of the
6 Main Extension aggregated IRRM which will also be explained in more detail
7 below.

8
9 Q. PLEASE DESCRIBE THE OPERATION AND MAINTENANCE EXPENSES
10 INCLUDED IN THIS FILING?

11 A. As shown on Attachment JW-1, the test period operations and maintenance
12 expenses are \$13,589,676 of which business unit costs are \$9,623,491. The
13 attachment shows the results for the twelve months ended March 31, 2016, Test
14 Period Unadjusted, followed by thirteen (13) adjustments for the test period.

15
16 Adjustment No. 1 – Inflation Adjustment The base period consists of the actual
17 expenses for the twelve months ended June 30, 2015. The forecasted period
18 consists of the actual three months ended June 30, 2015 and the projected nine
19 months ended March 31, 2016. The inflation adjustment is \$283,309 of which
20 business unit expenses are \$200,357. This adjustment reflects the change in
21 the base period level of expenses to an expense amount equivalent to three
22 months actual and nine months forecast, exclusive of any other adjustments.

1 Adjustment No. 2 – Total Payroll & Staffing Adjustment Delaware Division has
2 included an \$837,012 adjustment to the Company's labor costs of which
3 business unit costs are \$573,366. This adjustment reflects a test period level of
4 business unit staffing salary and wage expense. This adjustment results from
5 annualizing the staff's current pay rate, adjusting staffing level to the current
6 business unit organizational structure.

7 Adjustment No. 3 – Non-Payroll Staffing and Payroll-Related Adjustments

8 Delaware Division has included an (\$193,082) adjustment for non-payroll related
9 expenses of which business unit costs are (\$15,741). This adjustment is due to
10 organizational changes as well as other changes in the department settlement
11 rates effective in the test period.

12 Adjustment No. 4 – Benefits Adjustment Delaware Division has included a

13 \$200,040 adjustment for benefits of which business unit costs are \$99,317. This
14 adjustment includes the annualized expense of health, dental, and prescription
15 claims and administration fees at the projected March expense level for the
16 current business unit organizational structure. This adjustment also includes the
17 annualized expense of life, short-term disability, long-term disability and
18 accidental death and dismemberment insurance and 401(k) expenses at the
19 most current rates and at the adjusted payroll.

20 Adjustment No. 5 – Insurance Adjustment Delaware Division has included a

21 (\$13,927) adjustment for insurance expenses of which business unit expenses
22 are (\$14,325). This adjustment is to annualize the insurance expenses effective

1 March 31, 2016. It does not include payroll-related insurance, which are
2 included in the benefit adjustment.

3 Adjustment No. 6 – ECIS Adjustment Delaware Division has included a
4 (\$1,130,454) adjustment to remove non-recurring expenses related to a billing
5 system upgrade.

6 Adjustment No. 7 – Depreciation Adjustment Delaware Division has included a
7 \$27,139 adjustment to annualize the depreciation expenses included in O&M
8 costs to the expense level effective March 31, 2016. The adjustment is primarily
9 related to changes to the business unit's projected vehicle depreciation
10 expenses. An additional adjustment to the plant depreciation and asset removal
11 cost expenses totaling \$251,220 was made to align the test period expenses
12 with the business unit's projected plant balance as of March 31, 2016. This
13 adjustment is inclusive of a depreciation expense increase of \$237,356 and an
14 increase to asset removal costs of \$13,863.

15 Adjustment No. 8 – Regulatory Expense Adjustment Delaware Division has
16 included a \$104,939 adjustment primarily for the expected rate case costs
17 associated with this regulatory proceeding amortized over a five-year period.

18 Adjustment No. 9 – Bad Debts Adjustment Delaware Division has included a
19 (\$17,196) adjustment to synchronize the Bad Debt expense with the projected
20 Firm Revenue (before the proposed increase) included in this filing.

21 Adjustment No. 10 – Maintenance Adjustment Delaware Division has included
22 a (\$71,503) adjustment to adjust the maintenance accounts to reflect a five-year
23 average expense based on the twelve months ended June 2011 - 2015.

1 Adjustment No. 11 – Gas Control Department Adjustment Delaware Division has
2 included a (\$172,759) adjustment to exclude expenses associated with the
3 business unit's Gas Control department from the O&M expense totals. The
4 Delaware Division is proposing that these expenses be recovered through the
5 business unit's Gas Sales Rate.

6 Adjustment No. 12 – Miscellaneous Adjustment Delaware Division has included
7 a \$30,493 adjustment for miscellaneous items of which business unit expenses
8 are (\$4,936).

9
10 Q. PLEASE DESCRIBE THE TAXES OTHER THAN INCOME INCLUDED IN THIS
11 FILING?

12 A. As shown on Schedule 3-M the taxes other than income are \$2,039,883 for the
13 test period. The basis for the taxes other than income is the actual, "per book",
14 balance for the twelve months ended June 30, 2015 of \$1,807,907. Five (5)
15 adjustments were added or subtracted from the actual results to get to the test
16 period expense level.

17 Adjustment No. 1 – Inflation Adjustment Delaware Division has included a
18 \$41,402 adjustment for other taxes of which the business unit expenses are
19 \$39,280. The adjustment is due to the change in the base period level of
20 expenses, to an expense amount equivalent to three months actual and nine
21 months forecast, exclusive of any other adjustments.

22 Adjustment No. 3 – Non-Payroll Staffing & Payroll-Related Adjustment
23 Delaware Division has included an \$85,782 adjustment of which business unit

1 expenses are \$61,514. This adjustment to adjust payroll taxes in order to reflect
2 the level of business unit staffing, salary and wage expense expected by March
3 31, 2016.

4 Adjustment No. 11 – Gas Control Department Adjustment Delaware Division has
5 included a (\$10,847) adjustment to exclude expenses associated with the
6 business unit's Gas Control department from the O&M expense totals. The
7 Delaware Division is proposing that these expenses be recovered through the
8 Business Unit's Gas Sales Rate.

9 Adjustment No. 12 – Miscellaneous Adjustment Delaware Division has included
10 a (\$1,154) adjustment for various business unit related items.

11 Adjustment No. 13 – Non-Payroll Taxes Other than Income Adjustment
12 Delaware Division has included an \$116,793 adjustment for regulatory and
13 property taxes. The property tax expense adjustment of \$174,652 is to adjust
14 the expense to the June 2015 plant levels at the most current invoiced rate. The
15 PSC assessment expense adjustment of (\$57,859) is to synchronize the PSC
16 assessment expense with the projected Revenue included in this filing.

17
18 Q. PLEASE DESCRIBE THE RESULTS OF THE MAIN EXTENSION
19 AGGREGATION IRRM INCLUDED IN THIS FILING?

20 A. Under the 2008 Settlement Agreement, the Company agreed that in its next
21 base rate proceeding, all incremental capital projects for main extensions in
22 excess of 500 feet proposed for rate base treatment and initiated subsequent to
23 March 31, 2007 will be evaluated in the aggregate to determine if said capital

1 projects earned the Company's authorized rate of return of 8.91 percent. For all
2 capital projects initiated subsequent to March 31, 2007, and as recently as
3 September 24, 2015, the Company has made an aggregated capital investment
4 in mains and in meters/services of \$18,445,965 and \$13,240,569, respectively.
5 As seen in Attachment JW-2, the 6,443 total customer additions supported by
6 these capital projects have generated a total average annual margin of
7 approximately \$5,164,900. By inputting the capital costs and average annual
8 margin totals into our IRRM, the Company calculates its rate of return to be
9 10.47 percent, which exceeds the required rate of return of 8.91 percent. It is
10 noted that these figures are exclusive of capital investments and customer
11 additions in the Company's Expansion Area in southeastern Sussex County for
12 which the Company has entered into a separate agreement regarding IRRM
13 results in Docket No. 12-292. (See Order No. 8479, dated November 5, 2013.)
14 In accordance with Order No.8479, the Company files annual reports with the
15 Commission regarding the progress made within the Expansion Area and will file
16 a separate aggregate IRRM in the 1st quarter of 2017.

17

18 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

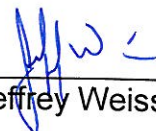
19 A. Yes, it does.

DATED: DECEMBER 21, 2015

STATE OF DELAWARE)
)
COUNTY OF KENT)

AFFIDAVIT OF JEFFREY WEISS

JEFFREY WEISS, being first duly sworn according to law, on oath deposes and says that he is the witness whose testimony appears as "Chesapeake Utilities Corporation, Delaware Division, Direct Testimony of Jeffrey Weiss"; that, if asked the questions which appear in the text of the direct testimony, he would give the answers that are therein set forth; and that he adopts this testimony as his sworn direct testimony in these proceedings.



Jeffrey Weiss

Then personally appeared this 21st day of December 2015 the above-named Jeffrey Weiss and acknowledged the foregoing Testimony to be his free act and deed.
Before me,





Notary Public
My Commission Expires: 7-17-18

Chesapeake Utilities Corporation
Delaware Division Account Analysis
Summary by FERC
Test Period Adjusted - 12 Months Ended 3/31/2016
Exhibit JW - 1 (Page 1 of 2)

| | Test Year Unadjusted | Inflation Adjustment No. 1 | Total Payroll & Staffing Adjustment No. 2 | Non-Payroll Staffing & Payroll- Related Adjustment No. 3 | Benefits Adjustment No. 4 | Insurance Adjustment No. 5 | ECIS Adjustment No. 6 | Depreciation Adjustment No. 7 | Regulatory Commission Adjustment No. 8 | Bad Debt Adjustment No. 9 | Maintenance Adjustment No. 10 | GC110 Removal Adjustment No. 11 | Misc. Adjustment No. 12 | Non-Payroll Taxes Other than Income Adjustment No. 13 | Test Period as Adjusted |
|--|-------------------------|----------------------------------|---|---|---------------------------------|----------------------------------|-----------------------------|-------------------------------------|--|---------------------------------|-------------------------------------|--|-------------------------------|---|----------------------------|
| PRODUCTION | | | | | | | | | | | | | | | |
| Liquefied Petroleum Gas Expenses | 717 | \$ 30,314.33 | \$ 858.97 | \$ - | \$ - | \$ - | \$ - | \$ (1,208.02) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 29,866 |
| Operation labor and expenses | 841 | 30,007.69 | 710.43 | - | - | - | - | - | - | - | - | - | - | - | 30,718.12 |
| Total Production Operations | | \$ 60,322.02 | \$ 1,570.40 | \$ - | \$ - | \$ - | \$ - | \$ (1,208.02) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 60,684 |
| Maintenance of Production Equipment | 742 | \$ 89,616.11 | \$ 2,639.68 | \$ 1,935.12 | \$ - | \$ - | \$ - | \$ (745.18) | \$ - | \$ - | \$ (45,984.57) | \$ - | \$ - | \$ - | \$ 47,461 |
| Total Production Expenses | | \$ 149,938.13 | \$ 4,210.08 | \$ 1,935.12 | \$ - | \$ - | \$ - | \$ (1,953.20) | \$ - | \$ - | \$ (45,984.57) | \$ - | \$ - | \$ - | \$ 108,146 |
| DISTRIBUTION EXPENSES | | | | | | | | | | | | | | | |
| Operation Supervision and Engineering | 870 | \$ 421,208.66 | \$ 9,333.76 | \$ 40,673.99 | \$ - | \$ - | \$ - | \$ 342.38 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 471,559 |
| Distribution Load Dispatching | 871 | 111,071.43 | 2,549.73 | 46,049.12 | - | - | - | - | - | - | - | (143,104.75) | (16,565.52) | - | \$ 0.00 |
| Mains and Services Expenses | 874 | 477,407.22 | 10,912.52 | 3,702.84 | - | - | - | (1,222.19) | - | - | - | - | - | - | \$ 490,800.39 |
| Measuring and Regulating Station Expenses - General | 875 | 13,820.48 | 219.34 | 159.83 | - | - | - | (55.97) | - | - | - | - | - | - | \$ 14,143.68 |
| Measuring and Regulating Station Expenses - Industrial | 876 | 18,296.97 | 470.33 | 1,944.88 | - | - | - | 155.28 | - | - | - | - | - | - | \$ 20,867.46 |
| Measuring and Regulating Station Expenses - City Gate | 877 | 10,450.78 | 228.62 | 425.90 | - | - | - | (582.71) | - | - | - | - | - | - | \$ 10,522.59 |
| Meter and House Regulator Expenses | 878 | 352,364.74 | 7,671.11 | 8,663.22 | - | - | - | 9,544.82 | - | - | - | - | - | - | \$ 378,243.89 |
| Customer Installations Expenses | 879 | 58,801.19 | 2,038.65 | 8,564.40 | - | - | - | (3,358.59) | - | - | - | - | - | - | \$ 66,045.65 |
| Other Expenses | 880 | 3,153.62 | 67.39 | 16.15 | - | - | - | (1.51) | - | - | - | - | - | - | \$ 3,235.65 |
| Rents | 881 | 5,765.10 | 116.06 | - | - | - | - | - | - | - | - | - | - | - | \$ 5,881.16 |
| Total Distribution Operations | | \$ 1,472,340.19 | \$ 33,607.50 | \$ 110,200.33 | \$ - | \$ - | \$ - | \$ 4,821.51 | \$ - | \$ - | \$ - | \$ (143,104.75) | \$ (16,565.52) | \$ - | \$ 1,461,299 |
| Maintenance of Mains | 887 | \$ 214,769.12 | \$ 3,249.54 | \$ 6,539.10 | \$ - | \$ - | \$ - | \$ 12,009.53 | \$ - | \$ - | \$ 78,864.80 | \$ - | \$ - | \$ - | \$ 315,432 |
| Maintenance of M&R Station Equipment - General | 889 | 37,687.84 | 724.99 | 10,709.03 | - | - | - | (728.24) | - | - | (19,692.43) | - | - | - | \$ 28,701.19 |
| Maintenance of M&R Station Equipment - Industrial | 890 | 37,863.13 | 959.06 | 1,952.01 | - | - | - | 224.32 | - | - | 24,714.14 | - | - | - | \$ 65,712.66 |
| Maintenance of M&R Station Equipment - City Gate | 891 | 4,289.45 | 113.38 | 1,664.67 | - | - | - | (198.10) | - | - | (971.27) | - | - | - | \$ 4,898.12 |
| Maintenance of Services | 892 | 140,704.56 | 3,005.48 | 1,455.50 | - | - | - | 9,008.06 | - | - | (15,516.69) | - | - | - | \$ 138,656.91 |
| Maintenance of Meters and House Regulators | 893 | 146,460.65 | 3,311.60 | 5,436.53 | - | - | - | 222.59 | - | - | (55,311.50) | - | - | - | \$ 100,119.87 |
| Maintenance of Other Equipment | 894 | 23,807.98 | 432.34 | - | - | - | - | - | - | - | (7,205.36) | - | - | - | \$ 17,034.97 |
| Total Distribution Maintenance | | \$ 605,582.73 | \$ 11,796.39 | \$ 27,756.84 | \$ - | \$ - | \$ - | \$ 20,538.16 | \$ - | \$ - | \$ 4,881.69 | \$ - | \$ - | \$ - | \$ 670,556 |
| Total Distribution Expenses | | \$ 2,077,922.92 | \$ 45,403.88 | \$ 137,957.18 | \$ - | \$ - | \$ - | \$ 25,359.67 | \$ - | \$ - | \$ 4,881.69 | \$ (143,104.75) | \$ (16,565.52) | \$ - | \$ 2,131,855 |
| CUSTOMER SERVICE EXPENSES | | | | | | | | | | | | | | | |
| Supervision-Customer Accounting | 901 | \$ 264,491.42 | \$ 6,000.64 | \$ (2,262.02) | \$ - | \$ - | \$ - | \$ 156.02 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 268,386 |
| Meter Reading Expenses | 902 | 252,184.97 | 5,706.73 | 14,438.92 | - | - | - | (365.60) | - | - | - | - | - | - | \$ 271,965.02 |
| Customer Records & Collection Expenses | 903 | 1,562,645.49 | 34,432.35 | 97,721.26 | 192.03 | - | - | 6,434.27 | - | - | - | - | 895.48 | - | \$ 1,702,320.87 |
| Uncollectible Accounts | 904 | 143,160.90 | 3,012.02 | - | - | - | - | - | - | - | - | - | - | - | \$ 128,977.06 |
| Info & Inst Advertising | 909 | 62,750.10 | 1,882.50 | - | - | - | - | - | - | (17,195.86) | - | - | - | - | \$ 64,632.80 |
| Total Customer Service Expenses | | \$ 2,285,232.88 | \$ 51,034.25 | \$ 109,896.15 | \$ 192.03 | \$ - | \$ - | \$ 6,224.69 | \$ - | \$ - | \$ (17,195.86) | \$ - | \$ - | \$ 895.48 | \$ 2,436,282 |
| SALES | | | | | | | | | | | | | | | |
| Demonstrating and Selling Expenses | 912 | \$ 605,814.83 | \$ 13,921.04 | \$ 173,297.20 | \$ - | \$ - | \$ - | \$ 1,704.42 | \$ - | \$ - | \$ - | \$ - | \$ (2,782.75) | \$ - | \$ 791,955 |
| Advertising Expenses | 913 | 141,391.54 | 3,222.74 | - | - | - | - | - | - | - | - | - | - | - | \$ 144,614.28 |
| Total Sales | | \$ 747,206.37 | \$ 17,143.78 | \$ 173,297.20 | \$ - | \$ - | \$ - | \$ 1,704.42 | \$ - | \$ - | \$ - | \$ - | \$ (2,782.75) | \$ - | \$ 936,569 |
| ADMINISTRATIVE AND GENERAL EXPENSES | | | | | | | | | | | | | | | |
| Administrative and General Salaries | 920 | \$ 2,865,700.98 | \$ 65,370.28 | \$ 402,496.28 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 7,863.90 | \$ - | \$ 3,341,431 |
| Office Supplies and Expenses | 921 | 834,574.44 | 18,265.33 | - | (45,843.00) | - | - | (1,867.06) | - | - | - | - | - | - | \$ 852,814.75 |
| Outside Services Employed | 923 | 2,213,958.47 | 25,823.90 | - | (63,559.42) | - | - | (1,130,453.80) | - | - | - | - | (13,139.03) | - | \$ 1,032,630.13 |
| Property Insurance | 924 | 28,294.45 | 655.90 | - | (8.35) | - | (3,223.41) | - | - | - | - | - | - | - | \$ 25,718.59 |
| Injuries and Damages | 925 | 354,295.23 | 7,418.55 | - | (16,026.21) | - | (10,703.77) | 382.72 | - | - | - | (301.24) | (12.63) | - | \$ 335,052.65 |
| Employee Pensions and Benefits | 926 | 1,266,344.94 | 28,093.36 | - | (24,493.11) | 200,039.86 | - | - | - | - | - | (29,352.76) | (31,558.98) | - | \$ 1,409,073.31 |
| Regulatory Commission Expense | 928 | 139,105.01 | 3,089.90 | - | - | - | - | - | 104,938.68 | - | - | - | - | - | \$ 247,133.59 |
| General Advertising Expenses | 930.1 | 39,344.64 | 795.67 | - | (2,044.48) | - | - | - | - | - | - | - | (16,116.43) | - | \$ 21,979.40 |
| Miscellaneous General Expenses | 930.2 | 246,444.46 | 5,385.76 | - | (35,822.84) | - | - | - | - | - | - | - | 43,462.04 | - | \$ 259,469.43 |
| Rents | 931 | 318,244.89 | 7,073.98 | - | (4,276.84) | - | - | - | - | - | - | - | - | - | \$ 331,063.35 |
| Administrative and General-Operation | | \$ 8,306,307.51 | \$ 161,972.63 | \$ 402,496.28 | \$ (192,074.23) | \$ 200,039.86 | \$ (13,927.18) | \$ (1,130,453.80) | \$ (1,484.34) | \$ 104,938.68 | \$ - | \$ (29,654.00) | \$ 48,805.23 | \$ - | \$ 7,856,967 |
| Maintenance of General Plant | 932 | \$ 139,056.36 | \$ 3,544.81 | \$ 11,428.50 | \$ (1,200.26) | \$ - | \$ - | \$ (2,711.76) | \$ - | \$ - | \$ (30,399.84) | \$ - | \$ 140.18 | \$ - | \$ 119,858 |
| Administrative and General -Maintenance | | \$ 139,056.36 | \$ 3,544.81 | \$ 11,428.50 | \$ (1,200.26) | \$ - | \$ - | \$ (2,711.76) | \$ - | \$ - | \$ (30,399.84) | \$ - | \$ 140.18 | \$ - | \$ 119,858 |
| Total Administrative and General Expense | | \$ 8,445,363.87 | \$ 165,517.44 | \$ 413,924.78 | \$ (193,274.49) | \$ 200,039.86 | \$ (13,927.18) | \$ (1,130,453.80) | \$ (4,196.10) | \$ 104,938.68 | \$ - | \$ (30,399.84) | \$ (29,654.00) | \$ 48,945.41 | \$ 7,976,825 |
| TOTAL O&M and A&G EXPENSES | | \$ 13,705,664.17 | \$ 283,309.43 | \$ 837,012.43 | \$ (193,082.46) | \$ 200,039.86 | \$ (13,927.18) | \$ (1,130,453.80) | \$ 27,139.48 | \$ 104,938.68 | \$ (17,195.86) | \$ (71,502.71) | \$ (172,758.75) | \$ 30,492.61 | \$ 13,589,676 |
| Taxes Other than Income | | | | | | | | | | | | | | | |
| | 408.1 | \$ 1,807,906.92 | \$ 41,401.53 | \$ - | \$ 85,782.39 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ (10,846.64) | \$ (1,153.74) | \$ 116,793.00 | \$ 2,039,883 |
| Depreciation | | | | | | | | | | | | | | | |
| | 403 | \$ 2,292,563.72 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 237,356.22 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 2,529,919.94 |
| Asset Removal Costs | 403.2 | \$ 110,267.09 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 13,863.47 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 124,130.56 |

Chesapeake Utilities Corporation
Delaware Division Account Analysis
Summary by FERC
Test Period Adjusted - 12 Months Ended 3/31/2016
Exhibit JW - 1 (Page 2 of 2)

| | Test Year Unadjusted | Inflation Adjustment No. 1 | Total Payroll & Staffing Adjustment No. 2 | Non-Payroll Staffing & Payroll- Related Adjustment No. 3 | Benefits Adjustment No. 4 | Insurance Adjustment No. 5 | ECIS Adjustment No. 6 | Depreciation Adjustment No. 7 | Regulatory Commission Adjustment No. 8 | Bad Debt Adjustment No. 9 | Maintenance Adjustment No. 10 | GC110 Removal Adjustment No. 11 | Misc. Adjustment No. 12 | Non-Payroll Taxes Other than Income Adjustment No. 13 | Test Period as Adjusted |
|--|-------------------------|----------------------------------|---|---|---------------------------------|----------------------------------|--------------------------|----------------------------------|---|---------------------------------|-------------------------------------|--|-------------------------------|---|----------------------------|
| PRODUCTION | | | | | | | | | | | | | | | |
| Liquefied Petroleum Gas Expenses | 717 | \$ 30,314.33 | \$ 859.97 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ (1,208.02) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 29,966.28 |
| Operation labor and expenses | 841 | 30,007.69 | 710.43 | - | - | - | - | - | - | - | - | - | - | - | 30,718.12 |
| Total Production Operations | | \$ 60,322.02 | \$ 1,570.40 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ (1,208.02) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 60,684.40 |
| Maintenance of Production Equipment | 742 | \$ 89,616.11 | \$ 2,639.68 | \$ 1,935.12 | \$ - | \$ - | \$ - | \$ - | \$ (745.18) | \$ - | \$ (45,984.57) | \$ - | \$ - | \$ - | \$ 47,461.16 |
| Total Production Expenses | | \$ 149,938.13 | \$ 4,210.08 | \$ 1,935.12 | \$ - | \$ - | \$ - | \$ - | \$ (1,953.20) | \$ - | \$ (45,984.57) | \$ - | \$ - | \$ - | \$ 108,145.56 |
| DISTRIBUTION EXPENSES | | | | | | | | | | | | | | | |
| Operation Supervision and Engineering | 870 | \$ 421,208.66 | \$ 9,333.76 | \$ 40,673.99 | \$ - | \$ - | \$ - | \$ 342.38 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 471,558.80 |
| Distribution Load Dispatching | 871 | 111,071.43 | 2,549.73 | 46,049.12 | - | - | - | - | - | - | - | \$ (143,104.75) | \$ (16,565.52) | - | \$ 0.00 |
| Mains and Services Expenses | 874 | 477,407.22 | 10,912.52 | 3,702.84 | - | - | - | - | - | - | - | - | - | - | 490,800.39 |
| Measuring and Regulating Station Expenses - General | 875 | 13,820.48 | 219.34 | 159.83 | - | - | - | - | - | - | - | - | - | - | 14,143.68 |
| Measuring and Regulating Station Expenses - Industrial | 876 | 18,296.97 | 470.33 | 1,944.88 | - | - | - | - | - | - | - | - | - | - | 20,867.46 |
| Measuring and Regulating Station Expenses - City Gate | 877 | 10,450.78 | 228.62 | 425.90 | - | - | - | - | - | - | - | - | - | - | 10,522.59 |
| Meter and House Regulator Expenses | 878 | 352,364.74 | 7,671.11 | 8,863.22 | - | - | - | - | - | - | - | - | - | - | 378,243.89 |
| Customer Installations Expenses | 879 | 58,801.19 | 2,038.65 | 8,564.40 | - | - | - | - | - | - | - | - | - | - | 66,045.65 |
| Other Expenses | 880 | 3,153.62 | 67.39 | 16.15 | - | - | - | - | - | - | - | - | - | - | 3,235.65 |
| Rents | 881 | 5,765.10 | 116.06 | - | - | - | - | - | - | - | - | - | - | - | 5,881.16 |
| Total Distribution Operations | | \$ 1,472,340.19 | \$ 33,607.50 | \$ 110,200.33 | \$ - | \$ - | \$ - | \$ 4,821.51 | \$ - | \$ - | \$ - | \$ (143,104.75) | \$ (16,565.52) | \$ - | \$ 1,461,299.26 |
| Maintenance of Mains | 887 | \$ 214,789.12 | \$ 3,249.54 | \$ 6,539.10 | \$ - | \$ - | \$ - | \$ 12,009.53 | \$ - | \$ - | \$ 78,864.80 | \$ - | \$ - | \$ - | \$ 315,432.09 |
| Maintenance of M&R Station Equipment - General | 889 | 37,687.84 | 724.99 | 10,709.03 | - | - | - | - | - | - | \$ (19,692.43) | - | - | - | 28,701.19 |
| Maintenance of M&R Station Equipment - Industrial | 890 | 37,863.13 | 959.06 | 1,952.01 | - | - | - | - | - | - | 24,714.14 | - | - | - | 65,712.66 |
| Maintenance of M&R Station Equipment - City Gate | 891 | 4,289.45 | 113.38 | 1,664.67 | - | - | - | - | - | - | \$ (971.27) | - | - | - | 4,898.12 |
| Maintenance of Services | 892 | 140,704.56 | 3,005.48 | 1,455.50 | - | - | - | - | - | - | \$ (15,516.69) | - | - | - | 138,656.91 |
| Maintenance of Meters and House Regulators | 893 | 146,460.65 | 3,311.60 | 5,436.53 | - | - | - | - | - | - | \$ (55,311.50) | - | - | - | 100,119.87 |
| Maintenance of Other Equipment | 894 | 23,807.98 | 432.34 | - | - | - | - | - | - | - | \$ (7,205.36) | - | - | - | 17,034.97 |
| Total Distribution Maintenance | | \$ 605,582.73 | \$ 11,796.39 | \$ 27,756.84 | \$ - | \$ - | \$ - | \$ 20,538.16 | \$ - | \$ - | \$ 4,881.69 | \$ - | \$ - | \$ - | \$ 670,555.81 |
| Total Distribution Expenses | | \$ 2,077,922.92 | \$ 45,403.88 | \$ 137,957.18 | \$ - | \$ - | \$ - | \$ 25,359.67 | \$ - | \$ - | \$ 4,881.69 | \$ (143,104.75) | \$ (16,565.52) | \$ - | \$ 2,131,855.07 |
| CUSTOMER SERVICE EXPENSES | | | | | | | | | | | | | | | |
| Supervision-Customer Accounting | 901 | \$ 264,491.42 | \$ 6,000.64 | \$ (2,262.02) | \$ - | \$ - | \$ - | \$ 156.02 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 268,386.06 |
| Meter Reading Expenses | 902 | 252,184.97 | 5,706.73 | 14,438.92 | - | - | - | - | - | - | - | - | - | - | 271,965.02 |
| Customer Records & Collection Expenses | 903 | 1,549,169.11 | 34,145.60 | 97,721.26 | - | - | - | - | - | - | - | - | - | - | 1,687,470.23 |
| Uncollectible Accounts | 904 | 143,160.90 | 3,012.02 | - | - | - | - | - | - | - | - | - | - | - | 128,977.06 |
| Info & Inst Advertising | 909 | 62,750.10 | 1,892.50 | - | - | - | - | - | - | - | \$ (17,195.86) | - | - | - | 64,632.60 |
| Total Customer Service Expenses | | \$ 2,271,756.50 | \$ 50,747.50 | \$ 109,898.15 | \$ - | \$ - | \$ - | \$ 6,224.69 | \$ - | \$ (17,195.86) | \$ - | \$ - | \$ - | \$ - | \$ 2,421,430.98 |
| SALES | | | | | | | | | | | | | | | |
| Demonstrating and Selling Expenses | 912 | \$ 605,814.83 | \$ 13,921.04 | \$ 173,297.20 | \$ - | \$ - | \$ - | \$ 1,704.42 | \$ - | \$ - | \$ - | \$ - | \$ (2,782.75) | \$ - | \$ 791,954.74 |
| Advertising Expenses | 913 | 141,391.54 | 3,222.74 | - | - | - | - | - | - | - | - | - | - | - | 144,614.28 |
| Total Sales | | \$ 747,206.37 | \$ 17,143.78 | \$ 173,297.20 | \$ - | \$ - | \$ - | \$ 1,704.42 | \$ - | \$ - | \$ - | \$ - | \$ (2,782.75) | \$ - | \$ 936,569.03 |
| ADMINISTRATIVE AND GENERAL EXPENSES | | | | | | | | | | | | | | | |
| Administrative and General Salaries | 920 | \$ 1,249,550.66 | \$ 29,285.38 | \$ 138,850.05 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 7,863.90 | \$ - | \$ 1,425,549.98 |
| Office Supplies and Expenses | 921 | 208,645.51 | 4,547.27 | - | 1,638.61 | - | - | - | - | - | - | - | - | - | 220,828.23 |
| Outside Services Employed | 923 | 1,492,883.64 | 8,462.24 | - | - | - | - | - | - | - | - | - | - | - | 370,892.08 |
| Property Insurance | 924 | 28,152.00 | 652.59 | - | - | - | - | - | - | - | - | - | - | - | 25,597.00 |
| Injuries and Damages | 925 | 347,423.73 | 7,272.65 | - | - | - | - | - | - | - | - | - | - | - | 334,161.69 |
| Employee Pensions and Benefits | 926 | 950,810.84 | 20,821.66 | - | - | - | - | - | - | - | - | - | - | - | 1,036,971.78 |
| Regulatory Commission Expense | 928 | 138,105.01 | 3,089.90 | - | - | - | - | - | - | - | - | - | - | - | 247,133.59 |
| General Advertising Expenses | 930.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Miscellaneous General Expenses | 930.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Rents | 931 | 250,694.79 | 5,557.36 | - | 2,150.97 | - | - | - | - | - | - | - | - | - | 258,403.12 |
| Administrative and General-Operation | | \$ 4,667,266.18 | \$ 79,689.05 | \$ 138,850.05 | \$ (16,036.13) | \$ 99,317.49 | \$ (14,325.22) | \$ (1,130,453.80) | \$ (1,484.34) | \$ 104,938.68 | \$ - | \$ (29,654.00) | \$ 14,412.13 | \$ - | \$ 3,919,537.48 |
| Maintenance of General Plant | 932 | \$ 124,178.99 | \$ 3,162.24 | \$ 11,428.50 | \$ 295.16 | \$ - | \$ - | \$ - | \$ (2,711.76) | \$ - | \$ (30,399.84) | \$ - | \$ - | \$ - | \$ 105,953.30 |
| Administrative and General -Maintenance | | \$ 124,178.99 | \$ 3,162.24 | \$ 11,428.50 | \$ 295.16 | \$ - | \$ - | \$ - | \$ (2,711.76) | \$ - | \$ (30,399.84) | \$ - | \$ - | \$ - | \$ 105,953.30 |
| Total Administrative and General Expense | | \$ 4,791,445.17 | \$ 82,851.29 | \$ 150,278.55 | \$ (15,740.97) | \$ 99,317.49 | \$ (14,325.22) | \$ (1,130,453.80) | \$ (4,196.10) | \$ 104,938.68 | \$ - | \$ (30,399.84) | \$ (29,654.00) | \$ 14,412.13 | \$ 4,025,490.78 |
| TOTAL O&M and A&G EXPENSES | | \$ 10,038,289.09 | \$ 200,356.53 | \$ 573,366.19 | \$ (15,740.97) | \$ 99,317.49 | \$ (14,325.22) | \$ (1,130,453.80) | \$ 27,139.48 | \$ 104,938.68 | \$ (17,195.86) | \$ (71,502.71) | \$ (172,758.75) | \$ (4,936.15) | \$ 9,623,491.41 |
| Taxes Other than Income | | | | | | | | | | | | | | | |
| Taxes Other than Income | 408.1 | \$ 1,715,097.46 | \$ 39,280.33 | \$ - | \$ 61,513.85 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ (10,846.64) | \$ (1,153.74) | \$ 116,793.00 | \$ 1,920,684.26 |



Chesapeake Utilities Corporation
Delaware Division
Aggregated IRRM Inputs
Exhibit JW - 2

| | 9 ME Dec. 2007 | Dec. 2008 | Dec. 2009 | Dec. 2010 | Dec. 2011 | Dec. 2012 | Dec. 2013 | Dec. 2014 | YTD 2015 | Total |
|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|
| Main | \$ 2,197,868.67 | \$ 2,946,172.61 | \$ 1,878,809.35 | \$ 3,108,923.11 | \$ 3,386,172.95 | \$ 1,530,877.26 | \$ 1,062,244.32 | \$ 1,805,549.75 | \$ 529,347.06 | \$ 18,445,965.08 |
| Meters & Service Cost | 481,193.82 | 850,000.32 | 963,861.31 | 1,287,381.48 | 1,515,271.42 | 2,029,717.02 | 2,219,760.24 | 2,124,791.41 | 1,768,591.90 | 13,240,568.92 |
| Sub-total : | \$ 2,679,062.49 | \$ 3,796,172.93 | \$ 2,842,670.66 | \$ 4,396,304.59 | \$ 4,901,444.37 | \$ 3,560,594.28 | \$ 3,282,004.56 | \$ 3,930,341.16 | \$ 2,297,938.96 | \$ 31,686,534.00 |

Margin Per Customer by Rate Class

| | | | | | | | | | |
|------------------------------|--------------|--------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|
| Residential Service Heat | \$ 365.14 | \$ 381.60 | \$ 354.33 | \$ 352.28 | \$ 348.37 | \$ 334.13 | \$ 349.60 | \$ 355.64 | \$ 375.03 |
| Residential Service Other | \$ 213.05 | \$ 232.68 | \$ 228.77 | \$ 229.89 | \$ 232.41 | \$ 231.36 | \$ 240.53 | \$ 249.01 | \$ 255.30 |
| Other Residential | \$ 147.70 | \$ 149.63 | \$ 141.00 | \$ 138.00 | \$ 140.57 | \$ 140.57 | \$ 135.00 | \$ 141.60 | \$ 157.33 |
| General Service Heat | \$ 530.77 | \$ 550.70 | \$ 515.56 | \$ 520.82 | \$ 515.28 | \$ 483.89 | \$ 527.83 | \$ 547.64 | \$ 582.45 |
| Medium Volume Heat | \$ 1,869.21 | \$ 1,914.52 | \$ 1,886.52 | \$ 1,836.23 | \$ 1,785.17 | \$ 1,682.13 | \$ 1,855.54 | \$ 1,911.52 | \$ 2,025.63 |
| Large Volume Heat | \$ 7,313.68 | \$ 7,776.26 | \$ 7,091.54 | \$ 7,262.73 | \$ 7,616.86 | \$ 6,861.31 | \$ 6,876.26 | \$ 7,216.40 | \$ 7,546.73 |
| High Load Heat | \$ 3,631.36 | \$ 3,698.30 | \$ 3,781.29 | \$ 3,837.74 | \$ 3,680.79 | \$ 3,537.40 | \$ 3,431.19 | \$ 3,291.32 | \$ 3,042.94 |
| High Load Commercial Other | \$ 1,936.44 | \$ 2,777.00 | \$ 3,096.81 | \$ 4,212.57 | \$ 4,354.18 | \$ 2,348.32 | \$ 2,765.99 | \$ 2,846.26 | \$ 2,751.54 |
| Other Commercial | \$ 683.61 | \$ 731.16 | \$ 698.40 | \$ 824.59 | \$ 1,070.20 | \$ 1,311.93 | \$ 1,737.63 | \$ 1,942.86 | \$ 1,971.19 |
| Large Volume Industrial Heat | \$ 16,673.20 | \$ 13,853.00 | \$ 8,426.57 | \$ 7,973.56 | \$ 10,572.13 | \$ 12,270.40 | \$ 10,840.14 | \$ 11,645.00 | \$ 12,085.71 |
| High Load Industrial Heat | \$ 17,764.00 | \$ 18,813.50 | \$ 33,331.29 | \$ 44,727.71 | \$ 43,729.86 | \$ 47,724.14 | \$ 51,545.43 | \$ 52,198.33 | \$ 54,655.25 |
| High Load Industrial Other | \$ 34,164.33 | \$ 36,655.50 | \$ 30,972.33 | \$ 38,170.50 | \$ 57,792.97 | \$ 74,855.06 | \$ 80,426.29 | \$ 67,229.17 | \$ 65,022.96 |
| Other Industrial | \$ 5,104.86 | \$ 2,987.86 | \$ 5,739.35 | \$ 5,046.33 | \$ 6,203.39 | \$ 6,428.21 | \$ 9,396.05 | \$ 11,142.00 | \$ 9,341.46 |
| Interruptible | \$ 14,977.49 | \$ 44,953.79 | \$ 108,184.67 | \$ 129,884.40 | \$ 43,756.75 | \$ 45,708.40 | \$ 23,942.00 | \$ 23,215.14 | \$ 34,174.67 |

Customer Additions by Rate Class

| | | | | | | | | | | |
|------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Residential Service Heat | 300 | 465 | 397 | 577 | 622 | 746 | 726 | 873 | 584 | 5290 |
| Residential Service Other | 5 | 5 | 7 | 14 | 2 | 19 | 11 | 13 | 22 | 98 |
| Other Residential | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| General Service Heat | 107 | 128 | 97 | 55 | 72 | 60 | 73 | 77 | 49 | 718 |
| Medium Volume Heat | 15 | 14 | 15 | 12 | 8 | 14 | 37 | 7 | 10 | 132 |
| Large Volume Heat | 5 | 4 | 7 | 3 | 1 | 6 | 4 | 0 | 4 | 34 |
| High Load Heat | 6 | 9 | 4 | 1 | 2 | 5 | 1 | 2 | 8 | 38 |
| High Load Commercial Other | 1 | 5 | 3 | 1 | 4 | 6 | 3 | 5 | 2 | 30 |
| Other Commercial | 4 | 9 | 3 | 4 | 4 | 5 | 17 | 2 | 6 | 54 |
| Large Volume Industrial Heat | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 3 |
| High Load Industrial Heat | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 3 |
| High Load Industrial Other | 2 | 4 | 3 | 9 | 5 | 3 | 4 | 4 | 2 | 36 |
| Other Industrial | 1 | 1 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 7 |
| Interruptible | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Additions: | 446 | 645 | 536 | 680 | 724 | 864 | 877 | 983 | 688 | 6443 |

| | | | | | | | | | |
|---------------------------------------|---------------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Average Margin Per Customer Addition: | \$ 744.17 | \$ 812.74 | \$ 726.95 | \$ 966.10 | \$ 958.62 | \$ 706.38 | \$ 872.24 | \$ 674.34 | \$ 770.34 |
| Cumulative Average: | \$ 744.17 | \$ 784.71 | \$ 765.68 | \$ 824.76 | \$ 856.73 | \$ 823.38 | \$ 832.36 | \$ 805.37 | \$ 801.63 |
| Total Annual Margin: | \$ 331,899.27 | \$ 856,119.01 | \$ 1,245,764.78 | \$ 1,902,714.48 | \$ 2,596,757.54 | \$ 3,207,070.75 | \$ 3,972,028.59 | \$ 4,634,905.78 | \$ 5,164,900.13 |



**Delaware Division
Sussex County Expansion Area
Overall Project Summary
Consolidated DE Model 3/31/07 - 9/30/2015
Delaware
October 5, 2015**

Project Summary:

| <i>Customer Type (check one)</i> | |
|--------------------------------------|-------------------------------------|
| New Residential Development | <input checked="" type="checkbox"/> |
| Existing Development (Conversion) | <input checked="" type="checkbox"/> |
| Commercial (Rate Schedule _____) | <input checked="" type="checkbox"/> |
| Industrial (Rate Schedule _____) | <input checked="" type="checkbox"/> |
| Interruptible (Alternate Fuel _____) | |

| | |
|------------------------------|--|
| Average Square Feet per Home | |
|------------------------------|--|

| <i>Gas Equipment (check all that apply)</i> | |
|---|-------------------------------------|
| Heat | <input checked="" type="checkbox"/> |
| Water Heater | <input checked="" type="checkbox"/> |
| Range | <input checked="" type="checkbox"/> |
| Dryer | <input checked="" type="checkbox"/> |
| Gas Logs | |
| Gas Lights | |
| Boiler | |
| Other: | <input checked="" type="checkbox"/> |

| | |
|-------------------------------|--------------|
| Number of Customers in Model: | 6,443 |
| Anticipated Build-out Years: | 9 |

Financial Summary:

| <i>Capital Investment</i> | |
|--|--------------|
| Total Approach & Development Main | \$18,445,965 |
| Service Installations (Includes: mtr & reg): | \$13,240,569 |
| Other (specify): | \$0 |
| Total Capital Investment: | \$31,686,534 |

| <i>Margin</i> | |
|----------------------------|-------------|
| Total Annual Margin | \$5,164,900 |
| Annual Margin Per Customer | \$802 |

| Financial Test | % Required | % Results | Meets Test |
|---------------------|------------|-----------|------------|
| Rate of Return | 8.91% | 10.37% | Yes |
| Return on Equity | 10.25% | 12.62% | Yes |
| ** Net Revenue Test | n/a | n/a | n/a |

** **Indicates applicable financial test

| <i>Contribution In Aid of Construction ("CIAC")</i> | |
|---|-----|
| CIAC Required? | No |
| Total Amount for Project (Builder) | n/a |
| Total Amount Per Customer | n/a |
| Verification of Acceptance of CIAC | |

Business Unit Approvals Required

| | |
|---|------|
| | |
| Director of Energy Services (Shane Breakie) | Date |

| | |
|---|------|
| | |
| Director of Pricing and Regulatory Affairs (Bill O'Brien) | Date |

| | |
|----------------------------|------|
| | |
| Vice President (Jim Moore) | Date |

| | |
|--|------|
| | |
| Senior Vice President (Steve Thompson - Capital Investments > \$150,000) | Date |

Chesapeake Utilities Corporation
Delaware Division
Summary of Internal Rate of Return Results
Consolidated DE Model 3/31/07 - 9/30/2015
Delaware

| Cost of Capital | | | | |
|--|---------|---------|-----------------------------|-----------------|
| | Ratio | Cost | Weighted Cost of Capital | Pre-tax Cost |
| Equity | 61.81% | 10.25% | 6.34% | 10.68% |
| Short-Term Debt | 0.00% | 0.00% | 0.00% | 0.00% |
| Long-Term Debt | 38.19% | 6.74% | 2.57% | 2.57% |
| Total | 100.00% | N/A | 8.91% | 13.25% |
| Federal Tax Rate | | 35.00% | | |
| State Tax Rate | | 8.70% | | |
| Composite Tax Rate | | 40.655% | | |
| After-tax Rate | | 59.35% | | |
| Internal Rate of Return ("IRR") Summary Results | | | | |
| | Ratio | IRR | Weighted IRR | |
| Equity | 61.81% | 12.62% | 7.80% | |
| Short-Term Debt | 0.00% | 0.00% | 0.00% | |
| Long-Term Debt | 38.19% | 6.74% | 2.57% | |
| Total | 100.00% | N/A | 10.37% | |
| Calculation of CIAC | | | | |
| Capital Cost at 0.00% Rate of Return | | | | \$31,686,534 |
| Allowed Capital Cost for 7.77% Rate of Return | | | - | |
| Level of Capital Cost above Allowed Rate of Return | | | | \$31,686,534 |
| Tax Rate | | | | 31.905% |
| Level of Capital Cost with Tax Gross Up (CIAC) | | | | N/A |

Chesapeake Utilities Corporation
Delaware Division
Determination of Annual Non-Fuel Revenue ("Net Revenue")
Consolidated DE Model 3/31/07 - 9/30/2015
Delaware

| Determination of Annual Non-Fuel Revenue ("Net Revenue") | | | | | | |
|--|---------------------|-------------------------------|-------------------------|---------------------|-------------------------------|-------------------------|
| Year | Residential Service | | | Cumulative Total | | |
| | Number of Customers | Non-Fuel Revenue Per Customer | Annual Non-Fuel Revenue | Number of Customers | Non-Fuel Revenue Per Customer | Annual Non-Fuel Revenue |
| 1 | 446 | \$744 | \$331,899 | 446 | \$744 | \$331,899 |
| 2 | 645 | \$785 | \$506,138 | 1,091 | \$785 | \$856,119.01 |
| 3 | 536 | \$766 | \$410,406 | 1,627 | \$766 | \$1,245,765 |
| 4 | 680 | \$825 | \$560,835 | 2,307 | \$825 | \$1,902,714 |
| 5 | 724 | \$857 | \$620,275 | 3,031 | \$857 | \$2,596,758 |
| 6 | 864 | \$823 | \$711,402 | 3,895 | \$823 | \$3,207,071 |
| 7 | 877 | \$832 | \$729,981 | 4,772 | \$832 | \$3,972,029 |
| 8 | 983 | \$805 | \$791,679 | 5,755 | \$805 | \$4,634,906 |
| 9 | 688 | \$802 | \$551,521 | 6,443 | \$802 | \$5,164,900 |
| 10 | 0 | \$802 | \$0 | 6,443 | \$802 | \$5,164,900 |
| Total | 6,443 | | \$5,164,900 | | | |

Determination of Capital Costs

| Determination of Capital Cost Investments | | | | | Total Capital Costs | | |
|---|-----------|---------------|------------------------------|----------------------|-----------------------|-------------------|--------------|
| Year | Non-Depr. | Depreciable | | | Total Non-Depreciable | Total Depreciable | Total |
| | Land | M & R Station | Approach & Distribution Main | Service Installation | | | |
| 0 | \$0 | \$0 | \$2,197,869 | \$0 | \$0 | \$2,197,869 | \$2,197,869 |
| 1 | \$0 | \$0 | \$2,946,173 | \$481,194 | \$0 | \$3,427,366 | \$3,427,366 |
| 2 | \$0 | \$0 | \$1,878,809 | \$850,000 | \$0 | \$2,728,810 | \$2,728,810 |
| 3 | \$0 | \$0 | \$3,108,923 | \$963,861 | \$0 | \$4,072,784 | \$4,072,784 |
| 4 | \$0 | \$0 | \$3,386,173 | \$1,287,381 | \$0 | \$4,673,554 | \$4,673,554 |
| 5 | \$0 | \$0 | \$1,530,877 | \$1,515,271 | \$0 | \$3,046,149 | \$3,046,149 |
| 6 | \$0 | \$0 | \$1,062,244 | \$2,029,717 | \$0 | \$3,091,961 | \$3,091,961 |
| 7 | \$0 | \$0 | \$1,805,550 | \$2,219,760 | \$0 | \$4,025,310 | \$4,025,310 |
| 8 | \$0 | \$0 | \$529,347 | \$2,124,791 | \$0 | \$2,654,138 | \$2,654,138 |
| 9 | \$0 | \$0 | \$0 | \$1,768,592 | \$0 | \$1,768,592 | \$1,768,592 |
| 10 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total | \$0 | \$0 | \$18,445,965 | \$13,240,569 | \$0 | \$31,686,534 | \$31,686,534 |

| | | | | | |
|--------------------|-------|-----------|-----------|-----------|---------------------------------|
| Depreciation Rates | 3.81% | 1.61% | 2.12% | \$577,680 | Estimated Book Life 55 Years |
| Annual Depr Amount | \$0 | \$296,980 | \$280,700 | | |

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION

| | |
|---------------------------------------|--------------------|
| IN THE MATTER OF THE APPLICATION OF) | |
| CHESAPEAKE UTILITIES CORPORATION) | |
| FOR A GENERAL INCREASE IN ITS) | PSC DOCKET NO. 15- |
| NATURAL GAS RATES AND FOR) | |
| APPROVAL OF CERTAIN OTHER) | |
| CHANGES TO ITS NATURAL GAS TARIFF) | |

DIRECT TESTIMONY OF MATTHEW DEWEY

On Behalf of Chesapeake Utilities Corporation
Delaware Division.

Submitted for filing: December 21, 2015

1 Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

2 A. My name is Matthew Dewey, and I am the Director of Accounting Shared
3 Services for Chesapeake Utilities Corporation ("Chesapeake"). My business
4 address is 909 Silver Lake Boulevard, Dover, Delaware 19904.

5

6 Q. DESCRIBE BRIEFLY YOUR EDUCATION AND RELEVANT PROFESSIONAL
7 BACKGROUND.

8 A. I received a Bachelor of Science in Accounting from Goldey-Beacom College
9 in 1981. I joined Chesapeake in 1987 as a general ledger accountant. During
10 my twenty eight years of experience in Chesapeake's accounting department I
11 have held the following positions: General Ledger Accounting Manager,
12 Corporate Controller, Controller for Delmarva Propane, Director of Business
13 Unit Accounting and my current position of Director of Accounting Shared
14 Services. In my current role, I manage various corporate accounting areas
15 which includes the following: general ledger accounting for all of Chesapeake's
16 corporate office, costs settlement process, cash reconciliations and accounts
17 payable.

18

19 Q. HAVE YOU PREVIOUSLY TESTIFIED IN RATE PROCEEDINGS?

20 A. Yes. I have submitted pre-filed testimony with the Federal Energy Regulatory
21 Commission, Delaware Public Service Commission, Maryland Public Service
22 Commission, and the Florida Public Service Commission.

1 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS
2 PROCEEDING?

3 A. The purpose of my testimony is to describe and support the test period
4 adjustments relating to Delaware Division's operation and maintenance
5 expenses and taxes other than income for the corporate departments only. It
6 is also to request regulatory treatment for non-capitalized costs associated with
7 the set-up and implementation of new Technology. This includes but is not
8 limited to Customer Information System, Fixed Assets, Accounting,
9 Procurement, Work Force Management, Safety, Budgeting and Forecasting.

10

11 Q. DO YOU SPONSOR ANY ATTACHMENTS IN SUPPORT OF YOUR
12 TESTIMONY?

13 A. Yes, I do. I sponsor two (2) attachments, which support my testimony.
14 Attachment MD-1 displays a flow chart representation of the cost settlement
15 process, which I will explain in more detail below. Attachment MD-2
16 summarizes the operating expenses as adjusted, which I will explain in more
17 detail below.

18

19 Q. PLEASE BRIEFLY EXPLAIN THE OVERALL COST SETTLEMENT
20 PROCESS.

21 A. Charges that can be directly identified to a business unit, like Delaware Division
22 ("DE"), are directly charged to that business unit and are not part of the
23 settlement process. Examples of items that are directly charged include

1 accounts payable vouchers, prepaid insurance journal entries, and inventory
2 issues. Other charges that cannot be directly identified to a business unit are
3 allocated in the cost settlement process. In Attachment MD-1, a flow chart
4 representation of the settlement process is shown for illustrative purposes. The
5 cost settlement process is the process of allocating costs to the business unit
6 that either causes the cost being incurred or benefits from the cost being
7 incurred. Costs are accumulated by operational departments. Employee
8 based departments include costs like payroll, benefits, payroll taxes, vehicle
9 costs and other employee related expenses. Non-employee departments are
10 used to accumulate costs for such items as shared facilities, information
11 systems, benefits, and mailroom expenses. The costs are then allocated to the
12 business units, including DE, using department specific- settlement rates.

13
14 Q. PLEASE DESCRIBE THE OPERATION AND MAINTENANCE EXPENSES
15 INCLUDED IN THIS FILING?

16 A. As shown in Attachment MD-2, the test period operations and maintenance
17 expenses are \$13,589,676 of which corporate costs are \$3,973,202. The
18 attachment shows the results for the twelve months ended June 30, 2015, Test
19 Period Unadjusted, followed by thirteen (13) adjustments for the test period.
20 The majority of the adjustments are discussed in the testimony of Mr. Jeffrey
21 Weiss, only the ones impacting corporate costs are described below.

22 Adjustment No. 1 – Inflation As stated earlier, the base period consists of the
23 actual corporate expenses for the twelve months ended June 30, 2015. The

1 forecasted period consists of the actual three months ended June 30, 2015 and
2 projected nine months ended March 31, 2016. The Inflation adjustment of
3 \$283,309 of which corporate is \$82,953. This adjustment reflects the change
4 in the base period level of expenses to an expense amount equivalent to three
5 months actual and nine months reflecting three (3) percent inflation, exclusive
6 of any other adjustments.

7 Adjustment No. 2 – Payroll and Staffing Delaware Division has included an
8 \$837,012 adjustment to the Company's labor costs of which corporate is
9 \$263,646. This adjustment reflects a test period level of corporate staffing
10 salary and wage expense. This adjustment results from annualizing the staff's
11 projected pay rate and adjusting staffing level to the current corporate
12 organizational structure.

13 Adjustment No. 3 – Non-Payroll Staffing and Payroll-Related Adjustments
14 Delaware Division has included a (\$193,074) adjustment to the Company's
15 costs of which corporate is (\$177,341). The adjustment is due to organizational
16 changes or changes in the department settlement rates effective in the test
17 period.

18 Adjustment No. 4 – Benefits Adjustment Delaware Division has included a
19 \$200,040 adjustment for benefits of which corporate is \$100,722. This
20 adjustment includes the annualized expense of health, dental, and prescription
21 claims and administration fees at the projected March 31, 2016 expense level
22 for the current corporate organization structure. This adjustment also includes
23 the annualized expense of life, short-term disability, long-term disability and

1 accidental death and dismemberment insurance and 401(k) expenses at the
2 most current rates and at the adjusted payroll.

3 Adjustment No. 5 – Insurance Adjustment Delaware Division has included a
4 (\$13,927) adjustment for insurance expenses of which corporate is \$398. This
5 adjustment is to annualize the insurance expenses effective March 31, 2016.
6 It does not include payroll-related insurance, which are included in the benefit
7 adjustment.

8 Adjustment No. 12 – Miscellaneous Adjustment Delaware Division has
9 included a \$30,493 adjustment for various items of which corporate is \$35,429.
10 These adjustments include annualizing specific items and costs associated
11 with leasing additional corporate office space in Dover Delaware,
12

13 Q. PLEASE DESCRIBE THE TAXES OTHER THAN INCOME INCLUDED IN
14 THIS FILING?

15 A. As shown on Schedule 3-M the taxes other than income are \$2,039,883 for the
16 test period of which corporate is \$119,199. The basis for the taxes other than
17 income is the actual, “per book”, balance for the twelve months ended June 30,
18 2015 of \$1,807,907. The corporate adjustments listed below were added to
19 the actual results to get to the test period expense level. The adjustments that
20 are not listed below have no impact on taxes other than income.

21 Adjustment No. 1 – Inflation Adjustment Delaware Division has included a
22 \$41,402 adjustment for other taxes of which corporate is \$2,121. The
23 adjustment is due to the change in the base period level of expenses, to an

1 expense amount equivalent to six months actual and six months forecast,
2 exclusive of any other adjustments.

3 Adjustment No. 3 – Non-Payroll Staffing & Payroll Related Adjustment

4 Delaware Division has included an \$85,782 adjustment of which corporate is
5 \$24,269. This adjustment to adjust payroll taxes in order to reflect the level of
6 corporate staffing, salary and wage expense expected by March 2016.

7

8 Q. PLEASE BRIEFLY EXPLAIN THE REASON YOU ARE REQUESTING
9 APPROVAL FOR THE REGULATORY TREATMENT FOR COSTS RELATED
10 TO THE SET-UP AND IMPLEMENTATION OF NEW TECHNOLOGIES.

11 A. There are several new Technologies available that are beneficial to utilities.
12 Additionally, we foresee that the Company's existing technology systems will
13 need to updated or replaced in the near future. Specifically, the Customer
14 Information System for Chesapeake is currently over 20 years old and utilizes
15 older technology. The system is fully depreciated so this filing doesn't include
16 any recovery of software costs (depreciation) and/or rate base treatment.
17 Chesapeake is currently starting the search for a new Customer Information
18 System. In conjunction with the search, technology selection, and
19 implementation the company will incur costs which are currently not
20 capitalizable under Generally Accepted Accounting Principles "GAAP".

21

22 Q. PLEASE DESCRIBE THE NON-CAPITALIZABLE COSTS.

1 A When implementing a new technology the following examples of costs are not
2 allowed to be capitalized by GAAP: 1) Expertise to assist in the search and
3 selection process, 2) Documenting current processes and tariff requirements,
4 3) Process re-engineering to adapt the targeted software to our current tariff
5 requirements with little or no modifications to the technology, 4) Data
6 conversion which includes taking our customer information current stored in a
7 specific format and technology and to adjust to the targeted software and 5)
8 training during and after implementation.

9

10 Q. HOW WERE THESE SPECIFIC COSTS HANDLED IN THE CURRENT
11 CUSTOMER INFORMATION SYSTEM?

12 A. These costs were capitalized when our existing software was implemented in
13 the 90s based on the GAAP guidelines in effect at the time.

14

15 Q. HOW DO YOU EXPECT TO ACCOUNT FOR THESE COSTS WHEN
16 REGULATORY TREATMENT IS GRANTED?

17 A. Chesapeake would record costs for each new Technology to a regulatory
18 asset. The regulatory treatments for this asset would be consistent with the
19 rate base treatment and amortization period for the new technology
20 implemented. Recovery of the costs to be included in base rates during the
21 next base rate proceeding.

22

23 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

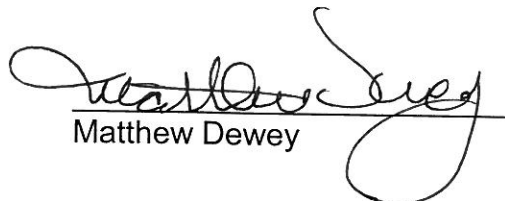
1 A. Yes, it does.

DATED: DECEMBER 21, 2015

STATE OF DELAWARE)
)
COUNTY OF KENT)

AFFIDAVIT OF MATTHEW DEWEY

MATTHEW DEWEY, being first duly sworn according to law, on oath deposes and says that he is the witness whose testimony appears as "Chesapeake Utilities Corporation, Delaware Division, Direct Testimony of Matthew Dewey"; that, if asked the questions which appear in the text of the direct testimony, he would give the answers that are therein set forth; and that he adopts this testimony as his sworn direct testimony in these proceedings.

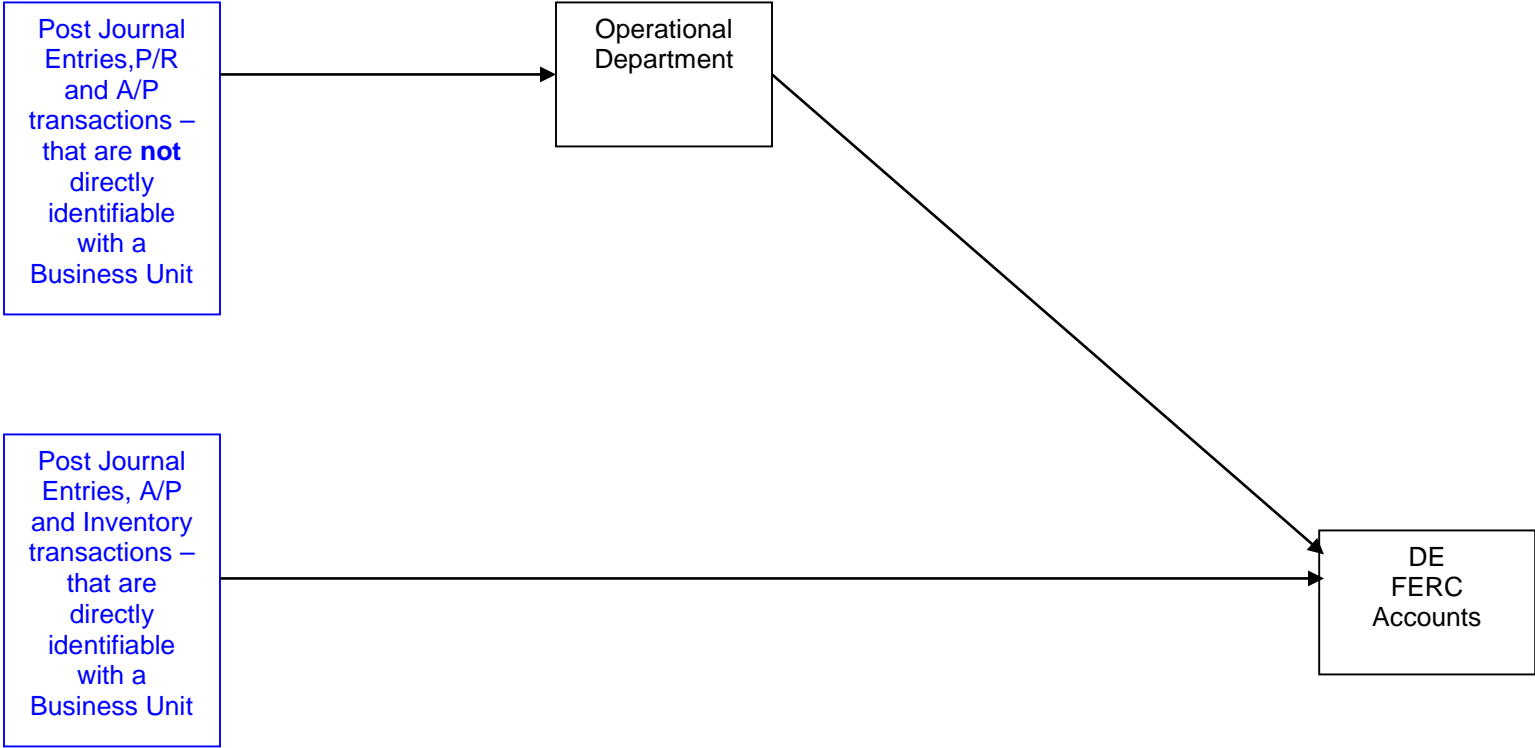

Matthew Dewey

Then personally appeared this 21st day of December 2015 the above-named Matthew Dewey and acknowledged the foregoing Testimony to be his free act and deed.
Before me,




Notary Public
My Commission Expires: 7-17-18

Chesapeake Utilities Corporation – Delaware Division
Cost Settlement Flow Chart
Exhibit MD-1



Chesapeake Utilities Corporation
Delaware Division Account Analysis
Summary by FERC
Test Period Adjusted - 12 Months Ended 3/31/2016
Exhibit MD - 2 (Page 1 of 2)

| | Test Year Unadjusted | Inflation Adjustment No. 1 | Total Payroll & Staffing Adjustment No. 2 | Non-Payroll Staffing & Payroll- Related Adjustment No. 3 | Benefits Adjustment No. 4 | Insurance Adjustment No. 5 | ECIS Adjustment No. 6 | Depreciation Adjustment No. 7 | Regulatory Commission Adjustment No. 8 | Bad Debt Adjustment No. 9 | Maintenance Adjustment No. 10 | GC110 Removal Adjustment No. 11 | Misc. Adjustment No. 12 | Non-Payroll Taxes Other than Income Adjustment No. 13 | Test Period as Adjusted |
|--|-------------------------|----------------------------------|---|---|---------------------------------|----------------------------------|-----------------------------|-------------------------------------|--|---------------------------------|-------------------------------------|--|-------------------------------|---|----------------------------|
| PRODUCTION | | | | | | | | | | | | | | | |
| Liquefied Petroleum Gas Expenses | 717 | \$ 30,314.33 | \$ 858.97 | \$ - | \$ - | \$ - | \$ - | \$ (1,208.02) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 29,866 |
| Operation labor and expenses | 841 | 30,007.69 | 710.43 | - | - | - | - | - | - | - | - | - | - | - | 30,718.12 |
| Total Production Operations | | \$ 60,322.02 | \$ 1,570.40 | \$ - | \$ - | \$ - | \$ - | \$ (1,208.02) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 60,684 |
| Maintenance of Production Equipment | 742 | \$ 89,616.11 | \$ 2,639.68 | \$ 1,935.12 | \$ - | \$ - | \$ - | \$ (745.18) | \$ - | \$ - | \$ (45,984.57) | \$ - | \$ - | \$ - | \$ 47,461 |
| Total Production Expenses | | \$ 149,938.13 | \$ 4,210.08 | \$ 1,935.12 | \$ - | \$ - | \$ - | \$ (1,953.20) | \$ - | \$ - | \$ (45,984.57) | \$ - | \$ - | \$ - | \$ 108,146 |
| DISTRIBUTION EXPENSES | | | | | | | | | | | | | | | |
| Operation Supervision and Engineering | 870 | \$ 421,208.66 | \$ 9,333.76 | \$ 40,673.99 | \$ - | \$ - | \$ - | \$ 342.38 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 471,559 |
| Distribution Load Dispatching | 871 | 111,071.43 | 2,549.73 | 46,049.12 | - | - | - | - | - | - | - | \$ (143,104.75) | \$ (16,565.52) | - | \$ 0.00 |
| Mains and Services Expenses | 874 | 477,407.22 | 10,912.52 | 3,702.84 | - | - | - | \$ (1,222.19) | - | - | - | - | - | - | \$ 490,800.39 |
| Measuring and Regulating Station Expenses - General | 875 | 13,820.48 | 219.34 | 159.83 | - | - | - | \$ (55.97) | - | - | - | - | - | - | \$ 14,143.68 |
| Measuring and Regulating Station Expenses - Industrial | 876 | 18,296.97 | 470.33 | 1,944.88 | - | - | - | \$ 155.28 | - | - | - | - | - | - | \$ 20,867.46 |
| Measuring and Regulating Station Expenses - City Gate | 877 | 10,450.78 | 228.62 | 425.90 | - | - | - | \$ (582.71) | - | - | - | - | - | - | \$ 10,522.59 |
| Meter and House Regulator Expenses | 878 | 352,364.74 | 7,671.11 | 8,663.22 | - | - | - | \$ 9,544.82 | - | - | - | - | - | - | \$ 378,243.89 |
| Customer Installations Expenses | 879 | 58,801.19 | 2,038.65 | 8,564.40 | - | - | - | \$ (3,358.59) | - | - | - | - | - | - | \$ 66,045.65 |
| Other Expenses | 880 | 3,153.62 | 67.39 | 16.15 | - | - | - | \$ (1.51) | - | - | - | - | - | - | \$ 3,235.65 |
| Rents | 881 | 5,765.10 | 116.06 | - | - | - | - | - | - | - | - | - | - | - | \$ 5,881.16 |
| Total Distribution Operations | | \$ 1,472,340.19 | \$ 33,607.50 | \$ 110,200.33 | \$ - | \$ - | \$ - | \$ 4,821.51 | \$ - | \$ - | \$ - | \$ (143,104.75) | \$ (16,565.52) | \$ - | \$ 1,461,299 |
| Maintenance of Mains | 887 | \$ 214,769.12 | \$ 3,249.54 | \$ 6,539.10 | \$ - | \$ - | \$ - | \$ 12,009.53 | \$ - | \$ - | \$ 78,864.80 | \$ - | \$ - | \$ - | \$ 315,432 |
| Maintenance of M&R Station Equipment - General | 889 | 37,687.84 | 724.99 | 10,709.03 | - | - | - | \$ (728.24) | - | - | \$ (19,692.43) | - | - | - | \$ 28,701.19 |
| Maintenance of M&R Station Equipment - Industrial | 890 | 37,863.13 | 959.06 | 1,952.01 | - | - | - | \$ 224.32 | - | - | \$ 24,714.14 | - | - | - | \$ 65,712.66 |
| Maintenance of M&R Station Equipment - City Gate | 891 | 4,289.45 | 113.38 | 1,664.67 | - | - | - | \$ (198.10) | - | - | \$ (971.27) | - | - | - | \$ 4,898.12 |
| Maintenance of Services | 892 | 140,704.56 | 3,005.48 | 1,455.50 | - | - | - | \$ 9,008.06 | - | - | \$ (15,516.69) | - | - | - | \$ 138,656.91 |
| Maintenance of Meters and House Regulators | 893 | 146,460.65 | 3,311.60 | 5,436.53 | - | - | - | \$ 222.59 | - | - | \$ (55,311.50) | - | - | - | \$ 100,119.87 |
| Maintenance of Other Equipment | 894 | 23,807.98 | 432.34 | - | - | - | - | - | - | - | \$ (7,205.36) | - | - | - | \$ 17,034.97 |
| Total Distribution Maintenance | | \$ 605,582.73 | \$ 11,796.39 | \$ 27,756.84 | \$ - | \$ - | \$ - | \$ 20,538.16 | \$ - | \$ - | \$ 4,881.69 | \$ - | \$ - | \$ - | \$ 670,556 |
| Total Distribution Expenses | | \$ 2,077,922.92 | \$ 45,403.88 | \$ 137,957.18 | \$ - | \$ - | \$ - | \$ 25,359.67 | \$ - | \$ - | \$ 4,881.69 | \$ (143,104.75) | \$ (16,565.52) | \$ - | \$ 2,131,855 |
| CUSTOMER SERVICE EXPENSES | | | | | | | | | | | | | | | |
| Supervision-Customer Accounting | 901 | \$ 264,491.42 | \$ 6,000.64 | \$ (2,262.02) | \$ - | \$ - | \$ - | \$ 156.02 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 268,386 |
| Meter Reading Expenses | 902 | 252,184.97 | 5,706.73 | 14,438.92 | - | - | - | \$ (365.60) | - | - | - | - | - | - | \$ 271,965.02 |
| Customer Records & Collection Expenses | 903 | 1,562,645.49 | 34,432.35 | 97,721.26 | 192.03 | - | - | \$ 6,434.27 | - | - | - | - | \$ 895.48 | - | \$ 1,702,320.87 |
| Uncollectible Accounts | 904 | 143,160.90 | 3,012.02 | - | - | - | - | - | - | - | - | - | - | - | \$ 128,977.06 |
| Info & Inst Advertising | 909 | 62,750.10 | 1,882.50 | - | - | - | - | - | - | - | \$ (17,195.86) | - | - | - | \$ 64,632.80 |
| Total Customer Service Expenses | | \$ 2,285,232.88 | \$ 51,034.25 | \$ 109,896.15 | \$ 192.03 | \$ - | \$ - | \$ 6,224.69 | \$ - | \$ - | \$ (17,195.86) | \$ - | \$ - | \$ 895.48 | \$ 2,436,282 |
| SALES | | | | | | | | | | | | | | | |
| Demonstrating and Selling Expenses | 912 | \$ 605,814.83 | \$ 13,921.04 | \$ 173,297.20 | \$ - | \$ - | \$ - | \$ 1,704.42 | \$ - | \$ - | \$ - | \$ - | \$ (2,782.75) | \$ - | \$ 791,955 |
| Advertising Expenses | 913 | 141,391.54 | 3,222.74 | - | - | - | - | - | - | - | - | - | - | - | \$ 144,614.28 |
| Total Sales | | \$ 747,206.37 | \$ 17,143.78 | \$ 173,297.20 | \$ - | \$ - | \$ - | \$ 1,704.42 | \$ - | \$ - | \$ - | \$ - | \$ (2,782.75) | \$ - | \$ 936,569 |
| ADMINISTRATIVE AND GENERAL EXPENSES | | | | | | | | | | | | | | | |
| Administrative and General Salaries | 920 | \$ 2,865,700.98 | \$ 65,370.28 | \$ 402,496.28 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 7,863.90 | \$ - | \$ 3,341,431 |
| Office Supplies and Expenses | 921 | 834,574.44 | 18,265.33 | - | \$ (45,843.00) | - | - | \$ (1,867.06) | - | - | - | - | - | - | \$ 852,814.75 |
| Outside Services Employed | 923 | 2,213,958.47 | 25,823.90 | - | \$ (63,559.42) | - | - | \$ (1,130,453.80) | - | - | - | - | \$ (13,139.03) | - | \$ 1,032,630.13 |
| Property Insurance | 924 | 28,294.45 | 655.90 | - | \$ (8.35) | - | \$ (3,223.41) | - | - | - | - | - | - | - | \$ 25,718.59 |
| Injuries and Damages | 925 | 354,295.23 | 7,418.55 | - | \$ (16,026.21) | - | \$ (10,703.77) | \$ 382.72 | - | - | - | \$ (301.24) | \$ (12.63) | - | \$ 335,052.65 |
| Employee Pensions and Benefits | 926 | 1,266,344.94 | 28,093.36 | - | \$ (24,493.11) | \$ 200,039.86 | - | - | - | - | - | \$ (29,352.76) | \$ (31,558.98) | - | \$ 1,409,073.31 |
| Regulatory Commission Expense | 928 | 139,105.01 | 3,089.90 | - | - | - | - | - | \$ 104,938.68 | - | - | - | - | - | \$ 247,133.59 |
| General Advertising Expenses | 930.1 | 39,344.64 | 795.67 | - | \$ (2,044.48) | - | - | - | - | - | - | - | \$ (16,116.43) | - | \$ 21,979.40 |
| Miscellaneous General Expenses | 930.2 | 246,444.46 | 5,385.76 | - | \$ (35,822.84) | - | - | - | - | - | - | - | \$ 43,462.04 | - | \$ 259,469.43 |
| Rents | 931 | 318,244.89 | 7,073.98 | - | \$ (4,276.84) | - | - | - | - | - | - | - | - | - | \$ 331,063.35 |
| Administrative and General-Operation | | \$ 8,306,307.51 | \$ 161,972.63 | \$ 402,496.28 | \$ (192,074.23) | \$ 200,039.86 | \$ (13,927.18) | \$ (1,130,453.80) | \$ (1,484.34) | \$ 104,938.68 | \$ - | \$ (29,654.00) | \$ 48,805.23 | \$ - | \$ 7,856,967 |
| Maintenance of General Plant | 932 | \$ 139,056.36 | \$ 3,544.81 | \$ 11,428.50 | \$ (1,200.26) | \$ - | \$ - | \$ (2,711.76) | \$ - | \$ - | \$ (30,399.84) | \$ - | \$ 140.18 | \$ - | \$ 119,858 |
| Administrative and General -Maintenance | | \$ 139,056.36 | \$ 3,544.81 | \$ 11,428.50 | \$ (1,200.26) | \$ - | \$ - | \$ (2,711.76) | \$ - | \$ - | \$ (30,399.84) | \$ - | \$ 140.18 | \$ - | \$ 119,858 |
| Total Administrative and General Expense | | \$ 8,445,363.87 | \$ 165,517.44 | \$ 413,924.78 | \$ (193,274.49) | \$ 200,039.86 | \$ (13,927.18) | \$ (1,130,453.80) | \$ (4,196.10) | \$ 104,938.68 | \$ - | \$ (30,399.84) | \$ (29,654.00) | \$ 48,945.41 | \$ 7,976,825 |
| TOTAL O&M and A&G EXPENSES | | \$ 13,705,664.17 | \$ 283,309.43 | \$ 837,012.43 | \$ (193,082.46) | \$ 200,039.86 | \$ (13,927.18) | \$ (1,130,453.80) | \$ 27,139.48 | \$ 104,938.68 | \$ (17,195.86) | \$ (71,502.71) | \$ (172,758.75) | \$ 30,492.61 | \$ 13,589,676 |
| Taxes Other than Income | | | | | | | | | | | | | | | |
| | 408.1 | \$ 1,807,906.92 | \$ 41,401.53 | \$ - | \$ 85,782.39 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ (10,846.64) | \$ (1,153.74) | \$ 116,793.00 | \$ 2,039,883 |
| Depreciation | | | | | | | | | | | | | | | |
| | 403 | \$ 2,292,563.72 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 237,356.22 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 2,529,919.94 |
| Asset Removal Costs | 403.2 | \$ 110,267.09 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 13,863.47 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 124,130.56 |

Chesapeake Utilities Corporation
Delaware Division Account Analysis
Summary by FERC
Test Period Adjusted - 12 Months Ended 3/31/2016
Exhibit MD - 2 (Page 2 of 2)

| | Test Year Unadjusted | Inflation Adjustment No. 1 | Total Payroll & Staffing Adjustment No. 2 | Non-Payroll Staffing & Payroll-Related Adjustment No. 3 | Benefits Adjustment No. 4 | Insurance Adjustment No. 5 | ECIS Adjustment No. 6 | Depreciation Adjustment No. 7 | Regulatory Commission Adjustment No. 8 | Bad Debt Adjustment No. 9 | Maintenance Adjustment No. 10 | GC110 Removal Adjustment No. 11 | Misc. Adjustment No. 12 | Non-Payroll Taxes Other than Income Adjustment No. 13 | Test Period as Adjusted |
|--|-------------------------|----------------------------------|---|--|------------------------------|-------------------------------|--------------------------|----------------------------------|--|------------------------------|----------------------------------|------------------------------------|----------------------------|--|----------------------------|
| PRODUCTION | | | | | | | | | | | | | | | |
| Liquefied Petroleum Gas Expenses | 717 | | | | | | | | | | | | | | |
| Operation labor and expenses | 841 | | | | | | | | | | | | | | |
| Total Production Operations | | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Maintenance of Production Equipment | 742 | | | | | | | | | | | | | | |
| Total Production Expenses | | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| DISTRIBUTION EXPENSES | | | | | | | | | | | | | | | |
| Operation Supervision and Engineering | 870 | | | | | | | | | | | | | | |
| Distribution Load Dispatching | 871 | | | | | | | | | | | | | | |
| Mains and Services Expenses | 874 | | | | | | | | | | | | | | |
| Measuring and Regulating Station Expenses - General | 875 | | | | | | | | | | | | | | |
| Measuring and Regulating Station Expenses - Industrial | 876 | | | | | | | | | | | | | | |
| Measuring and Regulating Station Expenses - City Gate | 877 | | | | | | | | | | | | | | |
| Meter and House Regulator Expenses | 878 | | | | | | | | | | | | | | |
| Customer Installations Expenses | 879 | | | | | | | | | | | | | | |
| Other Expenses | 880 | | | | | | | | | | | | | | |
| Rents | 881 | | | | | | | | | | | | | | |
| Total Distribution Operations | | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Maintenance of Mains | 887 | | | | | | | | | | | | | | |
| Maintenance of M&R Station Equipment - General | 889 | | | | | | | | | | | | | | |
| Maintenance of M&R Station Equipment - Industrial | 890 | | | | | | | | | | | | | | |
| Maintenance of M&R Station Equipment - City Gate | 891 | | | | | | | | | | | | | | |
| Maintenance of Services | 892 | | | | | | | | | | | | | | |
| Maintenance of Meters and House Regulators | 893 | | | | | | | | | | | | | | |
| Maintenance of Other Equipment | 894 | | | | | | | | | | | | | | |
| Total Distribution Maintenance | | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Distribution Expenses | | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| CUSTOMER SERVICE EXPENSES | | | | | | | | | | | | | | | |
| Supervision-Customer Accounting | 901 | | | | | | | | | | | | | | |
| Meter Reading Expenses | 902 | | | | | | | | | | | | | | |
| Customer Records & Collection Expenses | 903 | 13,476.38 | 286.75 | - | 192.03 | - | - | - | - | - | - | - | 895.48 | - | 14,850.64 |
| Uncollectible Accounts | 904 | | | | | | | | | | | | | | |
| Info & Inst Advertising | 909 | | | | | | | | | | | | | | |
| Total Customer Service Expenses | | \$ 13,476.38 | \$ 286.75 | \$ - | \$ 192.03 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 895.48 | \$ - | \$ 14,850.64 |
| SALES | | | | | | | | | | | | | | | |
| Demonstrating and Selling Expenses | 912 | | | | | | | | | | | | | | |
| Advertising Expenses | 913 | | | | | | | | | | | | | | |
| Total Sales | | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| ADMINISTRATIVE AND GENERAL EXPENSES | | | | | | | | | | | | | | | |
| Administrative and General Salaries | 920 | \$ 1,616,150.32 | \$ 36,084.90 | \$ 263,646.24 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 1,915,881.46 |
| Office Supplies and Expenses | 921 | 625,928.93 | 13,718.06 | - | (47,481.61) | - | - | - | - | - | - | - | 39,821.13 | - | 631,986.52 |
| Outside Services Employed | 923 | 721,074.83 | 17,361.66 | - | (63,559.42) | - | - | - | - | - | - | - | (13,139.03) | - | 661,738.05 |
| Property Insurance | 924 | 142.45 | 3.31 | - | (8.35) | - | (15.82) | - | - | - | - | - | - | - | 121.59 |
| Injuries and Damages | 925 | 6,871.50 | 145.90 | - | 477.10 | - | 413.86 | - | - | - | - | - | - | - | 7,908.36 |
| Employee Pensions and Benefits | 926 | 315,534.10 | 7,271.70 | - | (21,170.70) | 100,722.37 | - | - | - | - | - | - | (30,255.94) | - | 372,101.53 |
| Regulatory Commission Expense | 928 | | | | | | | | | | | | | | |
| General Advertising Expenses | 930.1 | 39,344.64 | 795.67 | - | (2,044.48) | - | - | - | - | - | - | - | (16,116.43) | - | 21,979.40 |
| Miscellaneous General Expenses | 930.2 | 246,444.46 | 5,385.76 | - | (35,822.84) | - | - | - | - | - | - | - | 43,462.04 | - | 259,469.43 |
| Rents | 931 | 67,550.10 | 1,516.61 | - | (6,427.81) | - | - | - | - | - | - | - | 10,621.33 | - | 73,260.23 |
| Administrative and General-Operation | | \$ 3,639,041.33 | \$ 82,283.58 | \$ 263,646.24 | \$ (176,038.10) | \$ 100,722.37 | \$ 398.04 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 34,393.10 | \$ - | \$ 3,944,446.56 |
| Maintenance of General Plant | 932 | \$ 14,877.37 | \$ 382.57 | \$ - | \$ (1,495.42) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 140.18 | \$ - | \$ 13,904.70 |
| Administrative and General -Maintenance | | \$ 14,877.37 | \$ 382.57 | \$ - | \$ (1,495.42) | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 140.18 | \$ - | \$ 13,904.70 |
| Total Administrative and General Expense | | \$ 3,653,918.70 | \$ 82,666.15 | \$ 263,646.24 | \$ (177,533.52) | \$ 100,722.37 | \$ 398.04 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 34,533.28 | \$ - | \$ 3,958,351.25 |
| TOTAL O&M and A&G EXPENSES | | \$ 3,667,395.08 | \$ 82,952.90 | \$ 263,646.24 | \$ (177,341.49) | \$ 100,722.37 | \$ 398.04 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 35,428.76 | \$ - | \$ 3,973,201.89 |
| Taxes Other than Income | | | | | | | | | | | | | | | |
| Taxes Other than Income | 408.1 | \$ 92,809.46 | \$ 2,121.20 | \$ - | \$ 24,268.54 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 119,199.20 |
| Total | | \$ 3,760,204.54 | \$ 85,074.10 | \$ 263,646.24 | \$ (153,072.96) | \$ 100,722.37 | \$ 398.04 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 35,428.76 | \$ - | \$ 4,092,401.09 |

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION OF)
CHESAPEAKE UTILITIES CORPORATION)
FOR A GENERAL INCREASE IN ITS) PSC Docket No. 15-
NATURAL GAS RATES AND FOR)
APPROVAL OF CERTAIN OTHER)
CHANGES TO ITS NATURAL GAS TARIFF)

DIRECT TESTIMONY OF LISA C. ELDER

On Behalf of Chesapeake Utilities Corporation

Delaware Division

Submitted for filing: December 21, 2015

1 Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

2 A. My name is Lisa C. Elder, and I am the Director of Financial Reporting and
3 Tax for Chesapeake Utilities Corporation ("Chesapeake"). My business
4 address is 909 Silver Lake Boulevard, Dover, Delaware 19904.
5

6 Q. DESCRIBE BRIEFLY YOUR EDUCATION AND RELEVANT
7 PROFESSIONAL BACKGROUND.

8 A. I received my Bachelor of Science in Accounting from Goldey Beacom
9 College in Wilmington, Delaware in 2000 and my Master of Science in
10 Taxation from the same college in 2015. In addition, I am a Certified Public
11 Accountant, licensed in the state of Delaware, with over 15 years of
12 professional accounting experience. I spent eight of my 15 years of
13 experience in financial accounting, holding positions of Staff Accountant,
14 Senior Financial Reporting and Corporate Accounting Manager. My
15 remaining ten years of experience were in public accounting and cost
16 accounting positions, including Staff Accountant and Senior Accountant. In
17 March 2014, I assumed my current role of Director of Financial Reporting
18 and Tax for Chesapeake Utilities Corporation.
19

20 Q. HAVE YOU PREVIOUSLY TESTIFIED IN RATE PROCEEDINGS?

21 A. I have submitted testimony on behalf of Sandpiper Energy in Case No. 9410,
22 filed with the Maryland Public Service Commission.

1 Q. WHAT ARE YOUR PRESENT DUTIES AND RESPONSIBILITIES?

2 A. As Director of Financial Reporting, I am responsible for the Company's
3 external reporting, including earnings releases, Form 10-Q and Form 10-K,
4 and compliance of accounting standards. I am also responsible for income
5 taxes.

6

7 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS
8 PROCEEDING?

9 A. The purpose of my testimony is to provide support for income taxes in the
10 cost of service and deferred income taxes in the rate base.

11

12 Q. PLEASE SUMMARIZE THE STATE AND FEDERAL TAXES INCLUDED IN
13 THE COST OF SERVICE.

14 A. The state and federal income taxes included in the Test Period Cost of
15 Service were calculated using the statutory tax rates for State and Federal
16 income taxes currently in effect for Sandpiper Energy. Additionally, the effect
17 of permanent differences and the amortization of unfunded deferred income
18 tax liabilities were included in the calculation. They are shown on Schedules
19 3-I, 3-J, and 3-K

20

21 Q. PLEASE SUMMARIZE THE STATE AND FEDERAL DEFERRED INCOME
22 TAXES INCLUDED IN THE RATE BASE.

1 A. The state and federal deferred income taxes included in the rate base are
2 the tax effect of temporary differences between the tax basis of an asset or
3 liability and its reported amount in the financial statements that will result in
4 taxable amounts or deductible amounts in future years when the reported
5 amount of the asset is recovered or when the reported amount of the liability
6 is a settled liability. The temporary differences and their related tax effect are
7 listed on Schedule 3-K.

8

9 Q. HOW WERE THE TEST PERIOD ACCUMULATED DEFERRED INCOME
10 TAXES CALCULATED?

11 A. The Delaware Division calculated the average Test Period Accumulated
12 Deferred Income Taxes by taking the June 30, 2015 balances and
13 forecasting changes to the balances for the period of July 1, 2015 through
14 March 31, 2016. Additionally, deferred income taxes related to un-recovered
15 purchased gas costs were subtracted from the total deferred taxes. The
16 average of the forecasted March 31, 2016 and the actual March 31, 2015
17 (adjusted for un-recovered purchased gas costs) balances were used as the
18 average Test Period Accumulated Deferred Income Taxes.

19

20 Q. DOES THIS CONCLUDE YOUR TESTIMONY?


21 A. Yes, it does.

DATED: DECEMBER 21, 2015

STATE OF DELAWARE)
)
COUNTY OF KENT)

AFFIDAVIT OF LISA C. ELDER

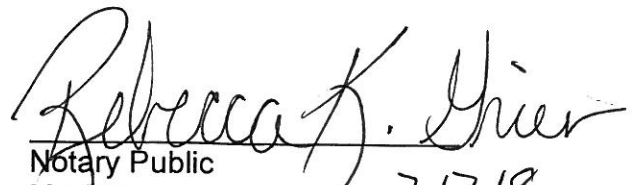
LISA C. ELDER, being first duly sworn according to law, on oath deposes and says that she is the witness whose testimony appears as "Chesapeake Utilities Corporation, Delaware Division, Direct Testimony of Lisa C. Elder"; that, if asked the questions which appear in the text of the direct testimony, she would give the answers that are therein set forth; and that she adopts this testimony as her sworn direct testimony in these proceedings.



Lisa C. Elder

Then personally appeared this 21st day of December 2015 the above-named Lisa C. Elder and acknowledged the foregoing Testimony to be her free act and deed.
Before me,





Notary Public
My Commission Expires: 7-17-18

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION

| | |
|---------------------------------------|--------------------|
| IN THE MATTER OF THE APPLICATION OF) | |
| CHESAPEAKE UTILITIES CORPORATION) | |
| FOR A GENERAL INCREASE IN ITS) | PSC DOCKET NO. 15- |
| NATURAL GAS RATES AND FOR) | |
| APPROVAL OF CERTAIN OTHER) | |
| CHANGES TO ITS NATURAL GAS TARIFF) | |

DIRECT TESTIMONY OF CHRISTOPHER REDD

On Behalf of Chesapeake Utilities Corporation
Delaware Division.

Submitted for filing: December 21, 2015

1 Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

2 A. My name is Christopher Redd, and I am the Director of Gas Operations and
3 Engineering for Chesapeake Utilities Corporation ("Chesapeake"). My
4 business address is 350 South Queen Street, Dover, Delaware 19904. I
5 support Chesapeake's natural gas distribution businesses in Delaware and
6 Maryland.

7

8 Q. DESCRIBE BRIEFLY YOUR EDUCATION AND RELEVANT PROFESSIONAL
9 BACKGROUND.

10 A. I received a Bachelor of Arts in Accounting from Park University in Parkville,
11 Missouri in 2001 and my Masters in Business Administration from Wilmington
12 University in New Castle, Delaware in 2007. I joined Chesapeake in 2004 and
13 spent 2 years in accounting and analytical roles within the corporate office
14 before joining the Delaware and Maryland distribution segment. I held the
15 position of Senior Business Analyst and Distribution Expansion and Planning
16 Manager before I was promoted to Director of Gas Operations and Engineering
17 in 2011. In my current role I have direct responsibility for engineering, field
18 operations and conversions activities in Delaware and Maryland.

19

20 Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE DELAWARE PUBLIC
21 SERVICE COMMISSION ("COMMISSION")?

22 A. No, I have not. However, I do have testimony pending before the Maryland
23 Public Service Commission in a base rate proceeding.

1 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS
2 PROCEEDING?

3 A. The purpose of my testimony is to provide an overview of Chesapeake's
4 Delaware Division ("Delaware Division" or "the Company") natural gas
5 distribution system as well as discuss the primary reasons for the increase in
6 rate base since the last base rate proceeding.

7

8 Q. DESCRIBE DELAWARE DIVISION'S NATURAL GAS DISTRIBUTION
9 SYSTEM.

10 A. Delaware Division's natural gas distribution system consists of approximately
11 970 miles of main and 47,000 service lines. The distribution system is
12 interconnected directly with the Eastern Shore Natural Gas transmission
13 pipeline system via sixty (60) metered receipt points.

14

15 Q. WHAT AREAS DOES DELAWARE DIVISION SERVE?

16 A. Delaware Division operates natural gas distribution systems in southern New
17 Castle County, Kent County and Sussex County, Delaware serving residential,
18 commercial, and industrial customers. The majority of those customers utilize
19 natural gas for heat, requiring the Company to build distribution systems that
20 are capable of providing service during extremely cold weather when the
21 demand peaks.

22

23 Q. HOW HAS CHESAPEAKE'S RATE BASE CHANGED SINCE ITS LAST RATE

1 FILING IN 2007 AND WHAT ARE THE PRIMARY REASONS?

2 A. In its last base rate filing in July 2007, Chesapeake's filed rate base was
3 approximately \$43.4 million. As described in the direct testimony of Mr.
4 Matthew Everngam, the rate base in this filing is approximately \$70.9 million.
5 The increase has been primarily caused by customer growth and pipeline
6 replacements.

7

8 Q. THAT IS A SIGNIFICANT INCREASE IN RATE BASE SINCE 2007. HAS THIS
9 CAPITAL INVESTMENT HAD AN IMPACT ON CUSTOMERS' RATES?

10 A. Aside from a rate structure designed to facilitate expansion in eastern Sussex
11 County (PSC Docket No. 12-292), until recently the Company has been able to
12 earn a reasonable return on its investment with no impact on our customers'
13 delivery service rates. This has been accomplished through increased revenue
14 from additional customers as well as controlling expenses.

15

16 Q. PLEASE EXPLAIN THE INCREASE IN RATE BASE RELATED TO
17 CUSTOMER GROWTH.

18 A. Since 2007, the number of customers served by Chesapeake has increased
19 from 36,224 in 2007 to 47,013 through November 2015. As a result of this
20 growth, the mains component of plant in service has increased approximately
21 \$20.8 million since the rate base rate filing.

22

23 Q. WHAT ARE THE REASONS WHY THE DELAWARE DIVISION WOULD

1 NEED TO REPLACE ITS NATURAL GAS PIPELINES?

2 A. The majority of the Delaware Division pipe being replaced is unprotected bare
3 steel pipe installed before the 1970's. This type of pipe is particularly subject
4 to the risk of corrosion. This includes both distribution main and services. The
5 Company has also replaced cast iron pipe because this material was used in
6 the early days of providing natural gas supply when manufactured gas was
7 prevalent. Manufactured gas is wetter and allowed the seals to remain more
8 pliable. With the introduction of drier natural gas the unions of cast iron pipe
9 are much more prone to leak. Additionally iron pipe is more susceptible to
10 cracking over time than steel. Other instances that require the Company to
11 replace pipe include pipe relocations for the Delaware Department of
12 Transportation ("DelDOT") and various municipality projects. In these
13 instances, the Company is required to relocate pipe due to road and
14 infrastructure improvement projects.

15

16 Q. HOW MUCH BARE STEEL AND CAST IRON HAS BEEN RETIRED SINCE
17 JANUARY 2007?

18 A. Approximately 27 miles of bare steel and cast iron distribution main have been
19 retired since January 2007. During that same time period over 800 services
20 have been replaced as well.

21

22 Q. HOW MUCH HAS BEEN SPENT ON REPLACING PIPE?

23 A. Delaware Division has spent approximately \$10.7 million on main and service

1 replacements from January 2007 through November 2015. We estimate an
2 additional \$600,000 will be spent through March of 2016.

3

4 Q. HOW DOES THIS EXPENDITURE IMPACT CUSTOMERS' RATES?

5 A. The replacement of cast iron and bare steel pipe to improve the integrity and
6 safety of the distribution system does not generate additional revenue for the
7 Company. Without new revenues to support the investment, it is reasonable
8 to expect that at some point Customers' rates will need to increase to enable
9 the Company to earn its authorized return on the investment being made to
10 replace this infrastructure.

11

12 Q. HOW MUCH BARE STEEL AND CAST IRON MAIN IS REMAINING AS OF
13 NOVEMBER 2015?

14 A. There is approximately eight (8) miles of bare steel distribution main and 200
15 bare steel services remaining on Delaware Division's distribution system. All
16 cast iron main has been replaced. The Company anticipates that the majority
17 of this bare steel will be replaced by the end of 2017.

18

19 Q. ARE THERE ANY OTHER LARGE CAPITAL EXPENDITURES YOU WOULD
20 LIKE TO MENTION?

21 A. Yes. Included in the test period rate base is a parcel of land acquired by
22 Chesapeake located in Dover, Delaware. Among other things, Chesapeake
23 intends to build a new administrative and operations facility on this property in

1 the near future. At this time, the Company intends to file a limited issue
2 application seeking recovery of the costs associated with this facility once they
3 are incurred.

4

5 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

6 A. Yes, it does.

DATED: DECEMBER 21, 2015

STATE OF DELAWARE)
)
COUNTY OF KENT)

AFFIDAVIT OF CHRISTOPHER REDD

CHRISTOPHER REDD, being first duly sworn according to law, on oath deposes and says that he is the witness whose testimony appears as "Chesapeake Utilities Corporation, Delaware Division, Direct Testimony of Christopher Redd"; that, if asked the questions which appear in the text of the direct testimony, he would give the answers that are therein set forth; and that he adopts this testimony as his sworn direct testimony in these proceedings.



Christopher Redd

Then personally appeared this 21st day of December 2015 the above-named Christopher Redd and acknowledged the foregoing Testimony to be his free act and deed.
Before me,



Notary Public
My Commission Expires: 7-17-18

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION

| | |
|---------------------------------------|--------------------|
| IN THE MATTER OF THE APPLICATION OF) | |
| CHESAPEAKE UTILITIES CORPORATION) | |
| FOR A GENERAL INCREASE IN ITS) | PSC DOCKET NO. 15- |
| NATURAL GAS RATES AND FOR) | |
| APPROVAL OF CERTAIN OTHER) | |
| CHANGES TO ITS NATURAL GAS TARIFF) | |

DIRECT TESTIMONY OF AUTUMN CHALABALA

On Behalf of Chesapeake Utilities Corporation
Delaware Division.

Submitted for filing: December 21, 2015

1 Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

2 A. My name is Autumn Chalabala, and I am the Manager of Financial Analysis
3 and Services for Chesapeake Utilities Corporation ("Chesapeake"). My
4 business address is 350 South Queen Street, Dover, Delaware 19904. I
5 support the Company's natural gas distribution businesses in Delaware and
6 Maryland.

7

8 Q. DESCRIBE BRIEFLY YOUR EDUCATION AND RELEVANT PROFESSIONAL
9 BACKGROUND.

10 A. I received a Bachelor of Science degree in Business Administration with a
11 concentration in Business Management from Pennsylvania State University in
12 York, Pennsylvania in 2000. I received my Masters of Business Administration
13 from Wilmington University in Dover, Delaware in 2012. Prior to joining
14 Chesapeake, I was employed by Sinclair Broadcast Group as the Senior
15 Financial Analyst, Yorktowne Cabinetry, Inc. and USA Direct, Inc. as the
16 Accounting Manager. My career at Chesapeake began in 2010 and I initially
17 held the position of Financial Analyst prior to being promoted to Operations
18 Analysis Manager. I was promoted to Manager of Financial Analysis and
19 Services in 2015. In my current role I have direct responsibility for reviewing
20 and reporting financial activities as they pertain to the operating and capital
21 budgets for the Delaware and Maryland Divisions of Chesapeake and
22 Sandpiper Energy, Inc.

1 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS
2 PROCEEDING?

3 A. The purpose of my testimony is to provide an overview of the increased
4 Operations and Maintenance ("O&M") expenses that have been experienced
5 in Chesapeake's Delaware Division ("Delaware Division") since the last
6 Delaware rate case proceeding, which was filed in July of 2007.

7
8 Q. PLEASE BRIEFLY DESCRIBE THE CUSTOMER GROWTH EXPERIENCED
9 BY DELAWARE DIVISION.

10 A. Since the 2007 rate case, Delaware Division has increased its customer base
11 from 36,224 customers in 2007 to 47,013 customers through November 2015.
12 This is an increase of approximately 30%. The growth has been a mix of
13 residential, commercial and industrial customers and has occurred across the
14 service territory.

15
16 Q. WHY ARE DELAWARE DIVISION'S O&M COSTS GREATER IN 2015 THAN
17 2007?

18 A. Delaware Division O&M costs have increased primarily due to the customer
19 growth previously mentioned, the rising costs of labor and the impact of
20 inflation. Employment and compensation costs continue to grow which includes
21 wages, benefits and labor-related taxes. The general price of goods and
22 services required to provide service to our customers has gradually increased
23 over the past eight years. There are also increased costs associated with

1 meeting regulatory requirements, such as the Distribution Integrity
2 Management plan and Environmental Protection Agency reporting
3 requirements. Specific changes in O&M costs are more thoroughly
4 documented in the direct testimony of Mr. Jeffrey Weiss and Mr. Matthew
5 Dewey.

6
7 Q. WHY DOES THE INCREASE IN CUSTOMERS DIRECTLY LEAD TO AN
8 INCREASE IN O&M COSTS?

9 A. There are a number of costs that are incurred by Chesapeake and are directly
10 impacted by the number of customers on our system. Meter reading costs are
11 a perfect example. Every customer addition adds one more meter that will
12 need to be read every month. Costs related to billing are another example.
13 Each new customer will require 12 additional bills to be mailed each month. A
14 final example is the cost for leak surveys. As our distribution system expands,
15 there are additional surveys to be done.

16
17 Q. HAS THE VARIABLE COST PER CUSTOMER INCREASED AS WELL
18 SINCE THE LAST RATE PROCEEDING?

19 A. Yes. Every year the Company files a report with the Commission outlining the
20 inputs to its Internal Rate of Return Models for that particular year. A
21 component of this filing is the average variable cost per customer addition. It
22 is derived by taking a simple average of the prior three years O&M costs (for
23 accounts deemed "variable") and dividing that by a three year average of

1 customers. This variable cost per customer has increased from \$106 per
2 customer addition in 2007 to \$130 per customer in 2015, for an increase of \$24
3 per customer, or a 23% increase in O&M costs.

4

5 Q. ARE THERE ANY OTHER TRENDS IN O&M COSTS THAT YOU WOULD
6 LIKE TO MENTION?

7 A. Yes. The Company is discovering that the level of O&M costs are becoming
8 increasingly more volatile in today's economy. The volatility of O&M costs are
9 difficult to predict and there is a need for revenue stability which is discussed
10 in the testimony of Mr. Ronald Amen. Also, there are large technology projects
11 planned to update or replace the Company's existing technology systems. The
12 request of regulatory treatment for non-capitalized costs associated with the
13 set-up and implementation of new technology is discussed in the testimony of
14 Mr. Matthew Dewey.

15

16 Q. PLEASE BRIEFLY DESCRIBE THE VOLATILITY OF O&M COSTS.

17 A. Vehicle fuel prices are a perfect example demonstrating the volatility of O&M
18 costs. Since the time of the last rate proceeding, vehicle fuel prices have varied
19 from a high of \$4.19 per gallon in November 2012 to a low of \$2.13 per gallon
20 in May 2011. Vehicle fuel prices are also completely subject to the market and
21 outside of the Company's control.

1 Q. WHAT IS YOUR CONCLUSION WITH REGARD TO THE DELAWARE
2 DIVISION'S O&M COSTS?

3 A. The forecast of the costs associated with the O&M of the Delaware Division
4 distribution system are reasonable. These expenses reflect our commitment
5 toward sustaining safe and reliable service to our customers while also striving
6 to control expenses without compromising safety or regulatory compliance.

7

8 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

9 A. Yes, it does.

DATED: DECEMBER 21, 2015

STATE OF DELAWARE)
)
COUNTY OF KENT)

AFFIDAVIT OF AUTUMN CHALABALA

AUTUMN CHALABALA, being first duly sworn according to law, on oath deposes and says that she is the witness whose testimony appears as "Chesapeake Utilities Corporation, Delaware Division, Direct Testimony of Autumn Chalabala"; that, if asked the questions which appear in the text of the direct testimony, she would give the answers that are therein set forth; and that she adopts this testimony as her sworn direct testimony in these proceedings.

Autumn Chalabala
Autumn Chalabala

Then personally appeared this 21st day of December 2015 the above-named Autumn Chalabala and acknowledged the foregoing Testimony to be her free act and deed. Before me,



Rebecca K. Grier
Notary Public
My Commission Expires: 7-17-18

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION OF)
CHESAPEAKE UTILITIES CORPORATION)
FOR A GENERAL INCREASE IN ITS)
NATURAL GAS RATES AND FOR)
APPROVAL OF CERTAIN OTHER)
CHANGES TO ITS NATURAL GAS TARIFF)

P.S.C. DOCKET NO. 15-

DIRECT TESTIMONY OF SHANE BREAKIE

On Behalf of Chesapeake Utilities Corporation

Delaware Division.

Submitted for filing: December 21, 2015

1 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

2 A. My name is Shane Breakie, and my business address is Chesapeake Utilities
3 Corporation, 350 South Queen Street, Dover, Delaware 19904.

4

5 Q. PLEASE DESCRIBE YOUR BUSINESS EXPERIENCE AND EDUCATIONAL
6 BACKGROUND.

7 A. I hold Bachelor of Science Degrees from the University of Delaware in
8 Accounting and in Finance and a Master's Degree in Business Administration
9 from Wilmington University (formerly "Wilmington College"). I began my career
10 at Chesapeake Utilities Corporation ("Chesapeake") in 1993 and have held
11 various positions including Accountant, Accounting Manager, Regional
12 Distribution Customer Service Manager, Director of Consumer Services, and
13 Director of Operations. My current position title is Director of Energy Services
14 and I have held this position since 2009. In this position I support
15 Chesapeake's natural gas distribution businesses in Delaware and Maryland,
16 as well as Sandpiper Energy, Inc.

17

18 Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION OR
19 ANY OTHER COMMISSION OR REGULATORY BODY?

20 A. Yes. I have testified previously before the Delaware Public Service Commission
21 on behalf of Chesapeake's Delaware Division (the "Company") in its Gas Sales
22 Service Rate proceeding.

1 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

2 A. My testimony will present several programs designed to facilitate system
3 expansion and any associated changes or additions to the retail gas service
4 tariff of the Company. First, I will discuss the Company's proposal to allow for
5 a financial contribution that may be provided to builders, developers or owners
6 of multi-family housing to offset the initial cost of piping and venting of
7 appliances to individually metered apartments or condominium units, provided
8 that the extension project still generates an internal rate of return ("IRR") that
9 meets or exceeds the Company's authorized rate of return. The Company uses
10 its IRR test to ensure that anticipated revenues from an expansion project
11 warrant the extent of investment required for the project, in accordance with its
12 line extension tariff, as further explained below.

13 Second, the Company proposes to provide gas compression services to
14 qualified commercial customers under separate, negotiated agreements with
15 the customer. The compression services would be optional for the customer
16 and conditioned upon arrangements mutually satisfactory to the customer and
17 the Company for design, location, construction and operation of the required
18 compression facilities. The compression facilities (e.g., compressors, gas
19 dryers, storage vessels and any other equipment required to supply enhanced
20 gas pressure to the customer's facilities) would be owned, operated and
21 maintained by the Company but located in appropriate areas on the customer's
22 premises. No tariff change is required because each negotiated contract would

1 be subject to separate Commission review, under the existing NCR rate
2 schedule.

3 Third, the Company proposes a new program applicable to municipalities or
4 incorporated towns (referred collectively as “towns”) seeking to extend gas
5 distribution service into designated areas within the town limits. Pursuant to
6 the rider, towns would submit an application to the Company describing the
7 areas in which they require gas infrastructure. In evaluating the expansion
8 project, the Company would estimate the construction costs and would agree
9 to advance the town that amount to fund the construction of the gas main
10 infrastructure expansion. The town would agree to pay back the amount
11 advanced within a six (6) year period from the time of the installation of the
12 mains. Any delivery service revenues received from customers that connect to
13 the main for gas service within this six (6) year period would be applied toward
14 the amount advanced by the Company. All of the Company’s carrying costs
15 related to the advance for the particular municipal expansion project would be
16 recorded as a regulatory asset and reviewed in the Company’s subsequent rate
17 case for recovery in base rates.

18 Fourth, the Company proposes to revise its IRR economic test to allow for the
19 costs of utilizing temporary gas storage tanks and equipment conversion costs
20 to be included in the costs of a particular project when construction of the main
21 extension will not be complete by the in-service date for the project. (The
22 temporary gas storage tank typically will be for propane but could also be for
23 compressed natural gas (“CNG”), if CNG is readily available.) The Company

1 submits that a tariff change is not required for it to revise its economic test in
2 this way because its current tariff, at Section 6.2 of the Rules and Regulations,
3 provides that main extensions “are limited to the extent of new investment
4 warranted by the anticipated revenues.” However, by revising its economic test
5 as part of this rate case, the Company is seeking a finding that, moving forward,
6 such costs (if reasonable in amount) may be capitalized as part of the
7 expansion project and will be recoverable in rate base. By allowing recovery
8 of the costs associated with temporary gas storage facilities, new residential
9 developments or businesses will be able to benefit from gas even if the gas
10 lines are not complete by the in-service date for the new construction.

11 Fifth, the Company proposes to make a modification to the eligibility criteria for
12 Transportation services specifically for the growers within the poultry industry.
13 The Company proposes to allow the poultry house grower accounts to transport
14 if the sum of their consumption for all of their accounts is greater than 30,000
15 CCF per year.

16 Sixth, the Company is proposing minor changes to its tariff to enable it to sell
17 or deliver natural gas to compressed natural gas (“CNG”) providers, without
18 violating the general prohibition on “sales for resale” included in its tariff.

19

20 Q. DO YOU SPONSOR ANY EXHIBITS IN SUPPORT OF YOUR TESTIMONY?

21 A. The proposed tariff changes are contained in the redlined tariff within this
22 application. Specific tariff sheets are; Sheets No. 12.1 and 43.

23

- 1 Q. PLEASE EXPLAIN THE PROPOSED MULTI-FAMILY HOUSING PROGRAM.
- 2 A. The Company proposes to provide a per-unit financial contribution to the
3 builders, developers, or owners of multi-family housing on a project-specific
4 basis that would offset the initial cost of venting of gas appliances and gas
5 piping to individually metered apartments or condominium units. The Company
6 would provide the contribution only if the total investment required for the
7 project, including any contribution, meets the Company's IRR economic test.
8 In other words, the contribution will only be available when the project produces
9 sufficient revenue to justify the total investment required, including the
10 contribution, which will ensure that existing customers do not subsidize the
11 multi-family housing project. The proposed tariff language establishing the
12 program is included under the Rules and Regulations under the existing
13 Section 6.2 Main Extensions – New Residential Development.
14
- 15 Q. AGAIN, PLEASE DESCRIBE THE COSTS TO WHICH THE CONTRIBUTION
16 MAY BE APPLIED.
- 17 A. The contribution will only be permitted to offset the costs of: (1) venting gas
18 appliances and (2) the associated gas piping of the multi-family unit under
19 consideration. The contribution will not be applicable to any costs associated
20 with the procurement of gas appliances.
21
- 22 Q. PLEASE EXPLAIN HOW THE PROPOSED MULTI-FAMILY HOUSING
23 PROGRAM WILL OPERATE.

1 A. The Company will evaluate each multi-family housing project as it currently
2 does; that is, using its IRR test to determine whether an extension project is
3 “economic.” A project is economic if the IRR test demonstrates that the
4 anticipated revenues from the project produce a rate of return on the required
5 investment for the project at least equal to the Company’s authorized rate of
6 return. Under the proposed tariff change, if the project’s rate of return is
7 determined to be greater than the Company’s authorized rate of return, then
8 the Company could provide a contribution toward the builder’s cost of gas
9 piping and venting in an amount up to, but not in excess of, the calculated
10 overage. If the project fails to pass the IRR economic test, then no contribution
11 can be provided. Any authorized contribution will only be provided once the
12 Company has verified all costs associated with the project. For a housing
13 project to be considered “multi-family housing” it must have a least four (4)
14 individually metered dwelling units per building.

15
16 Q. WHAT MARKET PROBLEMS DOES THIS PROPOSAL ADDRESS?

17 A. Historically, multi-family housing developers have been reluctant to include gas
18 within their new units due to the upfront costs associated with installing gas
19 facilities in a building, which can be considerable. These costs are attributable
20 to the extensive additional piping required throughout a multi-family building
21 and the necessary venting related to the gas appliances. These upfront costs
22 represent the primary impediment for multi-family unit developers that may
23 want to provide units with gas.

1

2 Q. DOES THIS PROPOSAL PROVIDE OTHER BENEFITS TO CUSTOMERS?

3 A. Yes. This multi-family housing incentive will facilitate tenant access to a clean
4 and low cost energy source when compared to electricity and other forms of
5 energy. Given the abundance of natural gas, the cost advantages of natural
6 gas are expected to continue for the foreseeable future. The multi-family
7 housing sector provides a solution for many limited income households and
8 first-time home buyers. The lower energy bills associated with natural gas will
9 provide a particular economic benefit to this population. Furthermore, qualified
10 income eligible customers may also have access to the Chesapeake
11 Emergency Energy Recipient Program, also known as Sharing, which can
12 provide grants to assist them with their energy bills in times of need.

13

14 Q. WILL THE MULTI-FAMILY HOUSING PROGRAM PROVIDE ANY BENEFITS
15 TO EXISTING CUSTOMERS?

16 A. Yes. Growing the number of gas customers, within the parameters of the
17 Company's IRR economic test, allows the fixed costs of the Company to be
18 spread across a larger customer base. This should result in lower rates, over
19 time, than otherwise would result from a stagnant or declining customer base.
20 With only a limited number of multi-family units signing up for gas service, the
21 Company's existing customers have a large untapped source of additional
22 customers over which fixed costs can be allocated.

1 Q. HAS THE COMMISSION APPROVED ANY PROGRAM SIMILAR TO THE
2 MULTI-FAMILY HOUSING PROGRAM?

3 A. Chesapeake is not aware of any similar programs in Delaware. In Maryland,
4 however, in Case No. 9322, the Proposed Order of the Public Utility Law Judge
5 (dated October 10, 2013) approved a similar multi-family housing program
6 proposed by Washington Gas & Light Company. No party to that case objected
7 to the program and no party appealed that part of the Proposed Order. (See
8 ML# 150004, at pages 138-139.)
9

10 Q. PLEASE DESCRIBE THE COMPANY'S PROPOSAL TO OFFER
11 COMPRESSED NATURAL GAS SERVICE UNDER NEGOTIATED RATES.

12 A. The Company is proposing to offer a compression service under negotiated
13 contract terms that will allow customers to realize the economic and
14 environmental benefits of gas usage in lieu of other energy sources.
15 Specifically, the Company is seeking authority to include in rate base the cost-
16 effective construction costs of Company-owned and maintained compression
17 facilities that may be used to support industrial compressors, gas dryers,
18 storage vessels and any other equipment necessary to provide gas pressure
19 to a commercial customer's facilities at the times and levels required by the
20 customer.

21 Under the proposed NCR offering, The Company will construct, own and
22 operate equipment associated with the compression of gas in order to meet the
23 pressure demands specified by the customer. The terms of the particular

1 arrangement with a compression service customer will be agreed upon in
2 advance between the customer and the Company. The contract terms with the
3 compression customer will include the rate components, compression
4 requirements and payment terms.

5 Specifically, the Company and the compression customer will negotiate a rate
6 structure based on the Company's expected cost of service over a period
7 agreed upon by the parties. The rate structure shall be designed to recover
8 costs including, but not limited to, depreciation, returns on capital, income
9 taxes, property taxes, O&M expense, repair expense, A&G expense, franchise
10 fees, uncollectibles and insurance. Upon early termination of the compression
11 services agreement for any reason (other than the Company's default), the
12 Company shall recover from the customer an amount based on the Company's
13 unrecovered ownership and removal costs and any early-termination
14 provisions in the Company's subcontracts.

15 The proposed tariff language establishing the program is included under the
16 Rules and Regulations under the existing Section 6.2 Main Extensions –
17 Commercial and Industrial Main Extensions.

18

19 Q. WHAT PROBLEM IS THE NEW COMPRESSION SERVICE DESIGNED TO
20 ADDRESS?

21 A. This compression service offering is designed to address one of the most
22 significant hurdles faced by commercial customers seeking gas service – the
23 significant up-front costs of building and operating compression facilities.

1

2 Q. HOW DOES THE COMPANY'S COMPRESSION SERVICE NCR RELATE TO
3 THE STANDARD IRR ECONOMIC TEST APPLIED TO NEW CUSTOMERS
4 UNDER THE EXISTING TARIFF?

5 A. If the Company provides a facilities extension and the compression equipment
6 needed to provide the required pressure, the Company would use the same
7 IRR calculation as the economic test to examine whether to construct the
8 extension. The Company's proposed new NCR offering would allow the
9 customer to repay the costs (including carrying costs on the unpaid balance) of
10 furnishing the compression and associated facilities over the agreed upon time
11 period (e.g., 10 years) rather than entirely upfront. Again, the application of the
12 IRR economic test protects existing customers from subsidizing compression
13 service customers.

14

15 Q. HAS THE COMMISSION APPROVED ANY PROGRAM SIMILAR TO THE
16 COMPRESSION SERVICE OFFERING?

17 A. Chesapeake is not aware of any similar programs in Delaware. In Maryland,
18 however, in Case No. 9322, the Proposed Order of the Public Utility Law Judge
19 (dated October 10, 2013) approved a compression service offering proposed
20 by Washington Gas & Light Company, including combined heat and power
21 energy production services. (See ML# 150004, at pages 139-141.)

22 No party to that case objected to the compression service offering and no party
23 appealed that part of the Proposed Order.

1

2 Q. PLEASE DESCRIBE THE COMPANY'S PROPOSAL TO IMPLEMENT A
3 MUNICIPAL NATURAL GAS INFRASTRUCTURE EXPANSION PROGRAM.

4 A. The proposed program will provide a potential solution to those municipalities
5 or incorporated towns (referred collectively as "towns") seeking to extend
6 natural gas distribution service into designated areas within the town limits.
7 Pursuant to the program, towns would have the option of submitting an
8 application to the Company describing the areas in which they require natural
9 gas infrastructure. In evaluating the expansion project, the Company would
10 obtain a cost estimate to construct the facilities requested and would agree to
11 advance the town that amount to fund the construction of the gas main
12 infrastructure expansion. The town would agree to pay back the amount
13 advanced within a six (6) year period from the time of the installation of the
14 mains. Any Delivery Service Revenues received from customers that tie into
15 the main for gas service within this six (6) year period would be applied toward
16 the amount advanced by the Company. At the expiration of the six (6) year
17 period, the Company will compare the amount advanced to the town (*i.e.*, six
18 times the expected revenues) with the amount actually spent by the Company.
19 If the actual investment exceeds the amount of the funds advanced, then the
20 town will pay the difference.

21 Although the proposed advance and repayment structure already fits with
22 existing tariff language of its Rules and Regulations, at Section 6.3 Financial
23 Guarantees, the Company seeks Commission approval to create a regulatory

1 asset for the Company's carrying costs related to the advance, which will be
2 reviewed in the Company's subsequent rate case for recovery in delivery
3 service rates.

4

5 Q. WHY IS THE COMPANY PROPOSING THE MUNICIPAL GAS
6 INFRASTRUCTURE EXPANSION PROGRAM?

7 A. The program is designed to support economic development in towns and
8 municipalities that seek natural gas service and to provide energy savings to
9 their residents and businesses. The Company understands that the availability
10 of natural gas in an area is a significant factor that new home developers and
11 businesses consider when deciding where to locate. The program is
12 completely voluntary on behalf of the towns. Moreover, the expansion program
13 will allow the towns to provide low-cost natural gas to customers in areas that
14 would otherwise not be served including those in urban areas with fixed or
15 limited incomes or in assisted living facilities. In return, the town will receive the
16 benefit of additional property taxes and potentially increased property values
17 created by the introduction of natural gas to the area.

18

19 Q. PLEASE DESCRIBE THE COMPANY'S PROPOSAL FOR A TEMPORARY
20 GAS STORAGE TANK PROGRAM.

21 A. The Company proposes to include the costs of utilizing temporary propane (or
22 CNG) gas storage tanks and associated equipment conversion costs related to
23 a particular project when performing the applicable economic test under the

1 Company's line extension tariff. Equipment conversion costs can include the
2 costs associated with switching the appliances from propane to natural gas
3 when that appliance is temporarily setup to use propane during the interim time
4 period after a new home or business has been constructed but before the
5 natural gas infrastructure to the new home or business is complete. Under the
6 proposal, the Company will only be allowed to proceed with a particular project
7 if the anticipated revenues exceed the cost of the investment under the
8 applicable economic test - inclusive of the additional costs for the temporary
9 storage tanks and equipment conversions.

10

11 Q. WHY IS THE COMPANY PROPOSING THIS REVISION/CLARIFICATION?

12 A. As the Company has expanded into the lower eastern shore area, interest in,
13 and the demand for, natural gas has increased significantly. Recently, the
14 construction of new homes on the Delmarva Peninsula have increased and, in
15 response, the Company is preparing to accelerate its main extension
16 construction program. Moreover, construction and building restrictions in
17 certain resort areas in Sussex County limit the periods during the calendar year
18 which the Company is authorized to perform the roadwork necessary to install
19 its mains. Since much of the potential expansion is located in the resort areas,
20 this restriction further complicates the Company's ability to extend gas mains
21 to these newly constructed homes in a timely manner.

22

23 Q. WHY SHOULD THE COMMISSION APPROVE THIS REQUEST?

1 A. Again, the costs for utilizing temporary gas storage tanks and the conversion
2 of the equipment may only be included if their inclusion either meets the six (6)
3 times net revenue test or the IRR test, depending on which test is applicable
4 under the tariff. If the project meets the applicable economic test, then existing
5 customers will not be subsidizing any of the costs for the particular extension
6 project. In addition, the proposal is intended for those projects that the
7 Company estimates completion of the main installation within one (1) year from
8 the date of the request but may be delayed due to permitting, weather, or
9 restrictions during the summer vacation period while the homes are being
10 constructed. By revising its economic test in this manner as part of this rate
11 case, the Company is seeking a finding that, moving forward, such costs (if
12 reasonable in amount) will be recoverable in rate base.

13 While the Company does not believe that a tariff change is necessary to
14 implement this program, the Main Extension Policies on file with the
15 Commission, which originated as Exhibit A to the settlement agreement
16 adopted in Docket No. 12-292, may need to be amended to specify that the
17 temporary storage tank and equipment conversion costs are appropriate costs
18 for inclusion in the economic analysis.

19 Q. PLEASE DESCRIBE YOUR PROPOSAL TO MODIFY THE
20 TRANSPORTATION SERVICE CRITERIA FOR POULTRY HOUSE
21 ACCOUNTS.

22 A. The Company is proposing to modify its transportation service criteria to allow
23 the poultry houses that are set up under a common name for billing purposes

1 to aggregate their consumption for purposes of meeting the 30,000 CCF usage
2 requirement for eligibility for transportation service. The proposed tariff
3 change is included on Section 1.1 of the Transportation and Balancing Rider,
4 at Sheet 43.

5
6 Q. WHY IS THE COMPANY PROPOSING TO MAKE THIS CHANGE?

7 A. The poultry industry provides significant benefits to the regional economy
8 encompassing Delaware and the Delmarva Peninsula. Several large poultry
9 companies operate in the region including Perdue, Mountaire Farms, Allen
10 Harim, Amick Farms and Tyson Foods. Over the past few years, the poultry
11 companies located on the Delmarva Peninsula have converted nearly all of
12 their large processing plants, feed mills and grain dryers to natural gas. The
13 owners/operators of several poultry houses have contacted the Company
14 requesting natural gas for their facilities. Per the Delmarva Poultry Industry
15 there are over 1,700 growers on Delmarva with over 5,000 poultry houses.
16 However, the poultry houses typically do not meet the current minimum usage
17 requirements for qualification of transportation service. Modifying the criteria
18 so that the poultry houses can transport allows the poultry industry to have
19 longer term control over their costs. Currently a single poultry farm with multiple
20 houses most likely will not meet the minimum volumetric requirement but
21 allowing those under the same account name to aggregate will increase their
22 ability to utilize transportation services.

1 Q. PLEASE DESCRIBE THE PROPOSED TARIFF CHANGES RELATING TO
2 CNG SERVICES.

3 A. The current tariff permits “sales for resale” of natural gas when a customer
4 makes a “retail sale as a fuel to natural gas vehicles.” This language appears
5 in the Rate Schedules for all commercial and industrial classes under the
6 “Special Terms and Conditions of Service.” This allowance for vehicle fuel is
7 an exception to the general prohibition on “sales for resale” (appearing in
8 Sections 10.3 and 16.1) and enables CNG providers to sell CNG as vehicle
9 fuel. The Company proposes to expand this exception to include customers
10 who transport or sell the natural gas as CNG to third parties.

11 If approved, the tariff change would enable owners or operators of CNG
12 facilities (or CNG transportation providers) to be sales or transportation
13 customers of the Company and to compress the natural gas and/or transport
14 the CNG to third parties that are not connected to a natural gas transmission
15 or distribution system. In addition to modifying the Special terms and
16 Conditions for each commercial and industrial customer class to include CNG
17 deliveries by truck to end users, the Company proposes to revise Section 10.3
18 of the Rules and Regulations of the Tariff to clarify that the prohibition on sales
19 for resale only applies “unless otherwise specified in the Tariff.” The “unless
20 otherwise specified in the Tariff” language also appears in Section 16.1
21 Definition of the Term “Customer” and, if added to Section 10.3, will clarify that
22 resales of CNG as vehicle fuel or to end users are permitted.
23

1 Q. AS AN ENERGY SOURCE, DOES NATURAL GAS COMPARE FAVORABLY
2 TO OTHER ENERGY SOURCES SUCH AS ELECTRICITY?

3 A. Yes. Generally, natural gas retains approximately 90% of its energy value
4 during the process required to extract, process and deliver gas to the customer.
5 On the other hand, electricity retains roughly 30% of its energy value from its
6 source to end-use by the customer (due to its physical properties, a significant
7 amount of energy is lost when transmitting electrical power over long
8 distances). As a result, natural gas utilized for space or water heating is
9 significantly more efficient than the use of electricity for the same purpose.

10 In addition, natural gas exhibits environmental advantages because it is clean
11 burning. In fact, natural gas is significantly cleaner than carbon intense fossil
12 fuels because it is composed chiefly of methane (the simple chemical
13 composition of natural gas is one carbon atom and four hydrogen atoms).
14 When methane is burned completely, the principal products of combustion are
15 carbon dioxide and water vapor. The advantages of natural gas over other
16 fuels include that it has fewer impurities and is less chemically complex, which
17 results in a combustion process that generally produces less pollution. In most
18 applications, using natural gas results in less of the following substances than
19 oil or coal: carbon dioxide (CO₂) (which is the primary greenhouse gas); sulfur
20 dioxide (which is the primary cause of acid rain); nitrogen oxides (which is the
21 primary cause of smog); and particulate matter (which can affect health and
22 visibility).¹ Advances in technology allow for cleaner energy production than

¹ Source: Energy Information Administration (www.eia.doe.gov).

1 ever before for all fuels, but the inherent cleanliness of natural gas
2 demonstrates its worth as the preferred fuel option.

3 Due to the ability to harness supply resources such as the Marcellus Shale,
4 natural gas is more abundant locally than ever before. This abundance is likely
5 to keep gas commodity prices low for the foreseeable future. The advantages
6 relating to energy efficiency, fewer environmental emissions and low prices
7 support the Commission's approval of all of the programs, and related tariff
8 changes, described herein.

9

10 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

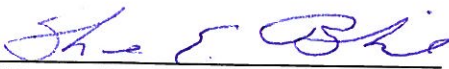
11 A. Yes it does.

DATED: DECEMBER 21, 2015

STATE OF DELAWARE)
)
COUNTY OF KENT)

AFFIDAVIT OF SHANE BREAKIE

SHANE BREAKIE, being first duly sworn according to law, on oath deposes and says that he is the witness whose testimony appears as "Chesapeake Utilities Corporation, Delaware Division, Direct Testimony of Shane Breakie"; that, if asked the questions which appear in the text of the direct testimony, he would give the answers that are therein set forth; and that he adopts this testimony as his sworn direct testimony in these proceedings.


Shane Breakie

Then personally appeared this 21st day of December 2015 the above-named Shane Breakie and acknowledged the foregoing Testimony to be his free act and deed.
Before me,




Notary Public
My Commission Expires: 7-17-18

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION OF)
CHESAPEAKE UTILITIES CORPORATION)
FOR A GENERAL INCREASE IN ITS) PSC DOCKET NO. 15-
NATURAL GAS RATES AND FOR)
APPROVAL OF CERTAIN OTHER)
CHANGES TO ITS NATURAL GAS TARIFF)

DIRECT TESTIMONY OF KATHRYN G. McVAY

On Behalf of Chesapeake Utilities Corporation

Delaware Division

Submitted for filing: December 21, 2015

1 Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

2 A. My name is Kathryn G. McVay and I am an independent consultant for
3 Chesapeake Utilities Corporation ("Chesapeake"). My business address is 701
4 Spinnaker Street, Middletown, Delaware 19709.

5

6 Q. DESCRIBE BRIEFLY YOUR EDUCATION AND RELEVANT PROFESSIONAL
7 BACKGROUND.

8 A. I received a Bachelor of Science Degree in Commerce (Accounting major) from
9 the University of Virginia and a Masters of Business Administration from Virginia
10 Commonwealth University. I am also a Certified Public Accountant. From 1978
11 to 1983 I was employed by Price Waterhouse in the Audit Department. From
12 1983 to 1989 I was employed as an Internal Audit Manager at Best Products,
13 Inc. I worked as an accounting recruiter for Don Richard Associates during 1990
14 – 1991. I was hired by Chesapeake Utilities Corporation as Director of Internal
15 Audit in April of 1991 and was promoted to Corporate Controller in 2001. In May
16 2005, I became an independent contractor and have been performing consulting
17 work on a part-time basis.

18

19 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS
20 PROCEEDING?

21 A. The purpose of my testimony is to request authorization to use deferral
22 accounting and to create a regulatory asset or regulatory liability to record
23 charges or credits that would have otherwise been recorded in equity pursuant

1 to the balance sheet treatment required by the Financial Accounting Standards
2 Board ("FASB") Accounting Standards Codification ("ASC") Section 715
3 Compensation – Retirement Benefits, ASC 715-30-25-1 and ASC 715-60-25-1
4 (formerly included in Statement of Financial Accounting Standards ("SFAS") No.
5 158). Additionally, Chesapeake Utilities Corporation respectfully requests that
6 the Commission acknowledge that, if amounts represented by the establishment
7 of regulatory assets or liabilities pursuant to this order were to be recognized in
8 expense through a future curtailment, settlement or termination event under
9 ASC 715-30 and ASC 715-60, the recognized costs would be includable as a
10 cost of service for ratemaking purposes, subject to the Commission's normal
11 ability to review the amounts for reasonableness.

12

13 Q. DO YOU SPONSOR ANY ATTACHMENTS IN SUPPORT OF YOUR
14 TESTIMONY?

15 A. Yes, I do. Attachment KGM-1 displays the journal entries that are required in
16 order to comply with ASC 715 and the journal entries that Chesapeake Utilities
17 Corporation is seeking the Commission's approval to create in order to record
18 the regulatory asset or regulatory liability for its Delaware Division related to the
19 unfunded liability of Pension, Deferred Compensation and Other Post-
20 Retirement Benefits.

21

1 Q. PLEASE EXPLAIN THE REASON YOU ARE REQUESTING APPROVAL FOR
2 THE DEFERRAL ACCOUNTING AND REGULATORY TREATMENT OF
3 PENSION, DEFERRED COMPENSATION AND OTHER POST RETIREMENT
4 BENEFITS.

5 A. The Company's financial reporting is governed by Generally Accepted
6 Accounting Principles ("GAAP"), of which the ASC is a part. ASC 715-30-25-1
7 requires employers to recognize a liability that equals the unfunded projected
8 benefit obligation, if the projected benefit obligation exceeds the fair value of
9 plan assets. If the fair value of plan assets exceeds the projected benefit
10 obligation, the employer shall recognize an asset that equals the overfunded
11 projected benefit obligation. At the time of Chesapeake's last rate case, interest
12 rates were relatively stable. Since then, there has been significant volatility in
13 interest rates, which impacts the discount rates used to calculate pension
14 liabilities. This has created volatility in the Accumulated Other Comprehensive
15 Income and Pension liability accounts. Looking forward, the recent increase in
16 interest rates by the Federal Open Market Committee of the Federal Reserve
17 and their comments surrounding future changes in rates, suggest that volatility
18 will continue. Adopting deferral accounting would eliminate this volatility in the
19 equity accounts.

20

21 Q. WHAT ARE THE REQUIREMENTS FOR ADOPTING DEFERRAL
22 ACCOUNTING?

1 A. ASC 980 Regulated Operations (formerly Statement of Accounting Standards
2 No. 71) allows regulated companies to defer costs and create regulatory assets
3 provided the regulatory agency grants authority for such a deferral. As stated in
4 ASC 980-10-05-5 and ASC 980-10-05-6:
5 “Regulators sometimes include costs in allowable costs in a period other than
6 the period in which the costs would be charged to expense by an unregulated
7 entity. For the regulated entity, that procedure can do any of the following:
8 a. create assets (future cash inflows that will result from the rate-making
9 process)
10 b. reduce assets (reductions of future cash inflows that will result from the
11 rate-making process)
12 c. create liabilities (future cash outflows that will result from the rate-
13 making process).
14 For general-purpose financial reporting, an incurred cost for which a regulator
15 permits recovery in a future period is accounted for like an incurred cost that is
16 reimbursable under a cost-reimbursement-type contract.”
17 Additional qualification requirements are stated in ASC 980-340-25-1:
18 “Rate actions of a regulator can provide reasonable assurance of the existence
19 of an asset. An entity shall capitalize all or part of an incurred cost that would
20 otherwise be charged to expense if both of the following criteria are met:
21 a. It is probable (as defined in Topic 450) that future revenue in an amount
22 at least equal to the capitalized cost will result from inclusion of that cost
23 in allowable costs for rate-making purposes.

1 b. Based on available evidence, the future revenue will be provided to
2 permit recovery of the previously incurred cost rather than to provide for
3 expected levels of similar future costs. If the revenue will be provided
4 through an automatic rate-adjustment clause, this criterion requires that
5 the regulator's intent clearly be to permit recovery of the previously
6 incurred cost."

7 Chesapeake Utilities Corporation is requesting approval of deferral accounting
8 and acknowledgement of the likelihood of recovery of the previously incurred
9 pension, deferred compensation and other post-retirement benefit costs in order
10 to meet the requirements of ASC 980-340-25-1.

11

12 Q. WHAT ARE THE KEY CONSIDERATIONS IN CONCLUDING THAT PENSION
13 DEFERRAL MEETS THE REQUIREMENT OF ASC 980-340-25-1?

14 A. In order to demonstrate that pension deferral meets the requirements of ASC
15 980-340-25-1, Chesapeake must demonstrate that it is probable that future
16 revenue in an amount at least equal to the capitalized cost will result from
17 inclusion of that cost in allowable costs for rate-making purposes. In
18 Chesapeake's prior rate filing, it included pension costs calculated in accordance
19 with ASC 715 Compensation – Retirement Benefits. The Commission has not
20 disallowed inclusion of pension costs in prior rate cases. At this time, we are
21 asking the Commission to confirm that their current practice is to allow in rates
22 pension costs calculated in accordance with ASC 715. Additionally we are
23 asking for confirmation that, if amounts represented by the establishment of

1 regulatory assets or liabilities pursuant to this order were to be recognized in
2 expense through the operation of the pension expense calculation or a
3 subsequent curtailment, settlement or termination event under ASC 715-30 and
4 ASC 715-60, the Commission would allow these costs to be included in
5 determining rates. Recovery of such costs would be subject to the Commission's
6 normal ability to review the amounts for reasonableness.

7

8 Q. WILL ADOPTION OF DEFERRAL ACCOUNTING AND THE CREATION OF A
9 REGULATORY ASSET OR REGULATORY LIABILITY CHANGE EXPENSE
10 RECOGNITION FOR PENSION, DEFERRED COMPENSATION OR OTHER
11 POST-RETIREMENT BENEFITS?

12 A. No, adoption of deferral accounting and the creation of a regulatory asset does
13 not change expense recognition for pension, deferred compensation or other
14 post-retirement benefits.

15

16 Q. WHAT DEFINED BENEFIT PLANS DOES CHESAPEAKE UTILITIES
17 CORPORATION SPONSOR?

18 A. Chesapeake sponsors a defined benefit pension plan, a defined benefit deferred
19 compensation plan and a postretirement health care and life insurance plan.
20 The defined benefit pension plan and the defined benefit deferred compensation
21 plans have been frozen since December 31, 2004 and future benefits under
22 these plans are no longer increasing due to years of service or pay increases.
23 The postretirement healthcare and life insurance plans were modified as of

1 January 1, 1994. At that time, employee contributions were increased for future
2 participants. Employees who had achieved 20 years of service and attained age
3 55 on that date would be required to pay 25% of the insurance cost, employees
4 who had achieved 20 years of service, but were not yet 55, would be required to
5 pay 50% of the cost and employees who did not meet that criteria would be
6 eligible to participate, but must pay 100% of the cost of the insurance. There
7 was no change to the benefits of those who retired prior to January 1, 1994.
8 Chesapeake's plan requires all retirees eligible for Medicare to use Medicare as
9 their primary insurance. Participation in the retiree healthcare plan is optional.

10
11
12 **Closing**

13
14 Q. IS THE INFORMATION SET FORTH IN SCHEDULE KGM-1 TRUE AND
15 CORRECT TO THE BEST OF YOUR KNOWLEDGE AND BELIEF?

16 A. Yes, it is.

17
18 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

19 A. Yes, it does.

DATED: DECEMBER 21, 2015

STATE OF DELAWARE)
)
COUNTY OF KENT)

AFFIDAVIT OF KATHRYN G. MCVAY

KATHRYN G. MCVAY, being first duly sworn according to law, on oath deposes and says that she is the witness whose testimony appears as "Chesapeake Utilities Corporation, Delaware Division, Direct Testimony of Kathryn G. McVay"; that, if asked the questions which appear in the text of the direct testimony, she would give the answers that are therein set forth; and that she adopts this testimony as her sworn direct testimony in these proceedings.

Kathryn G. McVay
Kathryn G. McVay

Then personally appeared this 21st day of December 2015 the above-named Kathryn G. McVay and acknowledged the foregoing Testimony to be her free act and deed.

Before me,



Rebecca K. Grier
Notary Public
My Commission Expires: 7.17.18

Proposed Accounting Entries

The following journal entries are required to record the unfunded liability for Pension, Deferred Compensation and Other Post-Retirement Benefits. These unfunded liabilities represent the excess of the Projected Benefit Obligation (for Pension and Deferred Compensation) and Accumulated Post-Retirement Benefit Obligation (for Other Post-Retirement Benefits) over the fair value of plan assets for the Pension and the recorded benefit liabilities for the Deferred Compensation and Other Post-Retirement Benefits Plans, which are unfunded.

| | | Dr. | Cr. |
|------------|---|------------|------------|
| 219 | Accumulated Other Comprehensive Income (after tax) | X | |
| 182 | Regulatory tax asset – SFAS No. 158-related (tax effect) | X | |
| 228 | Liabilities for Pension & Deferred Compensation | | X |
| 228 | Liability for Other Post-Retirement Benefits (SFAS No. 106) | | X |

The following journal entries would be made to reclassify the after-tax amounts charged from Accumulated Other Comprehensive Income to a Regulatory Asset.

| | | Dr. | Cr. |
|------------|--|------------|------------|
| 182 | Regulatory asset – benefit related | X | |
| 219 | Accumulated Other Comprehensive Income | | X |

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION OF)
CHESAPEAKE UTILITIES CORPORATION)
FOR A GENERAL INCREASE IN ITS) PSC Docket No. 15-XXX
NATURAL GAS RATES AND FOR)
APPROVAL OF CERTAIN OTHER)
CHANGES TO ITS NATURAL GAS TARIFF)

DIRECT TESTIMONY OF JOHN D. TAYLOR

On Behalf of Chesapeake Utilities Corporation

Delaware Division

Submitted for filing: December 21, 2015

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Appendix A – Resume

Appendix B – Affidavit

I. Introduction

Q. Please state your name and business address.

A. My name is John D. Taylor and my business address is 14401 Lamar Avenue, Overland Park, KS 66211.

Q. By whom are you employed and in what capacity?

A. I am employed by Black & Veatch Corporation ("Black & Veatch") as a Project Manager in the Finance & Regulatory Services Practice of Black & Veatch's Management Consulting group. Black & Veatch is a leading provider of consulting services to electric and gas utilities and other energy-related and network businesses.

Q. Please describe the firm of Black & Veatch.

A. Black & Veatch has provided comprehensive engineering and management services to utility, industrial, and governmental entities since 1915. Its Management Consulting Division delivers management consulting solutions in the energy and water sectors. Our services include broad-based strategic, regulatory, financial, and information systems consulting. In the energy sector, Black & Veatch Management Consulting delivers a variety of services for companies involved in the generation, transmission, and distribution of electricity and natural gas. From an industry-wide perspective, Black & Veatch has extensive experience in all aspects of the North American natural gas industry, including utility costing and pricing, gas supply and transportation planning, competitive market analysis and regulatory practices and policies gained through management and operating responsibilities at gas distribution, pipeline and other energy-related companies, and through a wide

1 variety of client assignments. Black & Veatch has assisted numerous gas
2 distribution companies located in the U.S. and Canada.

3 **Q. Please describe your professional background and education.**

4 A. As a Principal Consultant with Black and Veatch I am involved in a variety of
5 energy and utility related projects regarding matters pertaining to economics,
6 finance, and public policy. This includes: asset divestitures, allocated class cost
7 of service studies, rate of return, cash working capital, tax litigation, rate design
8 analysis, auction analysis, and affiliate cost allocation. Part of my role within
9 these projects is to conduct various analyses which take into account both
10 accounting and financial considerations and the particular operational
11 configuration of a company's assets. This includes studies such as: allocated
12 class cost of service studies; valuation modeling; affiliate cost allocation; and
13 various cost of service analyses. I have filed testimony on class cost of service
14 studies as well as statistical audit sampling. I have filed expert testimony in
15 Indiana, Maine, Minnesota, Illinois, and Pennsylvania. I began my education
16 studying electrical and mechanical engineering and worked for an industrial
17 inspection company which provided me with hands on experience with utility
18 assets and equipment. I received an undergraduate degree in Environmental
19 Economics, with an emphasis in econometrics and regulatory policy. I also
20 earned a Masters in Economics from American University in Washington, D.C. A
21 copy of my resume is provided as Appendix A.

22 **Q. What is your assignment in this proceeding?**

23 A. Black & Veatch has been retained by Chesapeake Utilities Corporation's
24 Delaware Division ("Chesapeake" or the "Company") as a consultant in the area

1 of utility costing and rate design and related regulatory matters. Among the
2 varied consulting support for Chesapeake's general rate case, Chesapeake has
3 requested that we assist the Company by conducting an Allocated Cost of
4 Service Study (ACOSS) for which I am sponsoring.

5 **II. Purpose of Testimony**

6
7 **Q. What is the purpose of your direct testimony in this docket?**

8 A. First, I will discuss various principles of cost allocation and factors that influence
9 the cost allocation framework; as well as, general methods and approaches used
10 to allocate costs to customer classes. Second, I will discuss the underlying
11 methodology and basis used in the ACOSS studies I conducted and am
12 sponsoring. I will describe the studies of relative costs and other analyses
13 employed to apportion the various categories of plant and operation and
14 maintenance ("O&M") expenses to the respective customer classes. I will present
15 the class-by-class rate of return results and corresponding revenue surpluses or
16 deficiencies from the ACOSS.

17 **Q. Mr. Taylor, are you sponsoring any exhibits in this proceeding?**

18 A. Yes. I am sponsoring Exhibits JDT-1, JDT-2, and JDT-3.

19 **Q. Would you briefly describe the contents of Exhibits JDT-1, JDT-2, and JDT-3?**

20 A. Exhibit JDT-1 contains the class-by-class rate of return results and
21 corresponding revenue surpluses or deficiencies from the ACOSS for the test
22 year and test period. The studies contained in Exhibit JDT-2 are based on costs
23 and operating conditions for the test period ended March 31, 2016. This exhibit
24 provides a summary of the results, a printout of the cost assignment and

1 allocation detail, and supporting schedules showing functionalization of the costs
2 and the cost allocation factors used. Exhibit JDT-3 provides additional
3 descriptions and backup material used in the development of the
4 functionalization of Distribution Mains and the development of allocation factors.
5 The results of these studies were applied to expenses and plant balances for the
6 test year and the test period.

7 **III. Overview of ACOSS**

8
9 **Q. Please describe the general approach used to develop the ACOSS?**

10 A. In this proceeding, the purpose of the ACOSS is to allocate Chesapeake's
11 Delaware Division's overall adjusted revenues and costs to the various classes of
12 service in a manner that reflects the relative costs of providing service to each
13 class. This is accomplished through analyzing costs and assigning each
14 customer or rate class its proportionate share of the utility's total revenues and
15 costs within the historical test year and the partially forecasted test period. The
16 results of these studies can be utilized to determine the relative cost of service
17 for each customer class and to help determine the individual class revenue
18 responsibility. In order to allocate costs to the various classes, I reviewed
19 Chesapeake's expense and plant accounts and developed studies of the relative
20 costs of providing facilities and services for each rate class and analyzed the key
21 factors that cause the costs to vary.

22 **Q. Please describe the model that was used in conducting the ACOSS filed in**
23 **this proceeding.**

1 A. I used the same model in this proceeding as was used in the Company's 2001
2 and 2007 rate filings; a Cost of Service Model purchased by Chesapeake from
3 Navigant Consulting, Inc.

4 **Q. Is the preparation of a cost allocation study an exact science?**

5 A. No, it is not. The fundamental purpose of a cost allocation study is to aid in the
6 design of rates to be charged by identifying all of the capital and operating costs
7 incurred by a utility to provide service to all of its customers, and then assigning
8 or allocating those costs to individual rate classes on the basis of how those rate
9 classes cause the costs to be incurred. This process inherently requires a
10 substantial level of judgment and can be more accurately described as
11 engineering/accounting art, rather than science. Although there may be no
12 single, absolutely perfect methodology for allocating costs, there are certain
13 fundamental and foundational principles, i.e., cost causation and consistency that
14 should be followed in order to produce more accurate and reasonable results.
15 As described in further detail below, Chesapeake's cost allocation studies follow
16 these principles.

17 **Q. What is the guiding principle that should be followed when performing an**
18 **ACOSS?**

19 A. Cost causation is the fundamental principle applicable to all cost studies for
20 purposes of allocating costs to customer groups. Cost causation addresses the
21 question of which customer or group of customers causes the utility to incur
22 particular types of costs. In order to answer this question, it is necessary to
23 establish a relationship between the services used by a utility's customers and
24 the particular costs incurred by the utility in serving those customers. In other

words, the costs assigned or allocated to particular customers should be those costs that the particular customers caused the utility to incur because of the characteristics of the customers' usage of utility service.

Q. What are the steps to performing an ACROSS?

A. In order to establish the cost responsibility of each customer class, a three step analysis of the utility's total operating costs must first be performed. The three steps which are the predicate for an ACROSS are: (1) cost functionalization; (2) cost classification; and (3) cost allocation. The first step, functionalization, identifies and separates plant and expenses into specific categories based on the various characteristics of utility operation. The Company's functional cost categories associated with gas service include: production and gathering, transmission, distribution and general. Classification of costs, the second step, further separates the functionalized plant and expenses into the three cost-defining characteristics previously discussed: (1) customer, (2) demand or capacity, and (3) commodity. The final step is the allocation of each functionalized and classified cost element to the individual customer class. Costs typically are allocated on customer, demand, commodity or revenue allocation factors.

Q. How does one establish the cost and utility service relationships you previously discussed?

A. To establish these relationships, the Company must analyze its gas system design and operations, its accounting records as well as its system and customer load data (e.g., annual and peak period gas consumption levels). From the results of those analyses, methods of direct assignment and "common" cost

1 allocation methodologies can be chosen for all of the utility's plant and expense
2 elements.

3 **Q. Please explain what you mean by the term "direct assignment."**

4 A. The term "direct assignment" relates to a specific identification and isolation of
5 plant and/or expense incurred exclusively to serve a specific customer or group
6 of customers. Direct assignments best reflect the cost causation characteristics
7 of serving individual customers or groups of customers. Therefore, in performing
8 an ACOSS, the cost analyst seeks to maximize the amount of plant and expense
9 directly assigned to particular customer groups to avoid the need to rely upon
10 other more generalized allocation methods.

11 Direct assignments of plant and expenses to particular customers or
12 classes of customers are generally made on the basis of special studies
13 wherever the necessary data are available. These assignments are developed
14 by detailed analyses of the utility's maps and records, work order descriptions,
15 property records and customer accounting records. Within time and budgetary
16 constraints, the greater the magnitude of cost responsibility based upon direct
17 assignments, the less reliance need be placed on common plant allocation
18 methodologies associated with joint use plant.

19 **Q. Is it realistic to assume that a large portion of the plant and expenses of a**
20 **utility can be directly assigned?**

21 A. No. The nature of utility operations is characterized by the existence of common
22 or joint use facilities. Out of necessity, then, to the extent a utility's plant and
23 expense cannot be directly assigned to customer groups, common allocation

1 methods must be derived to assign or allocate the remaining costs to the
2 customer classes.

3 **Q. What is required to appropriately classify costs as Customer, Demand, and**
4 **Commodity?**

5 A. Usually a determination on the classification of costs can be made simply by
6 knowing the type of expense related activities or utility plant assets that reside in
7 a particular FERC account. In these instances the account as a whole can be
8 classified. However, for some FERC account functions it is beneficial to conduct
9 classification studies which determine which portion of an account is associated
10 with each classification.

11 **III. Black and Veatch's ACOSS**

12 **Q. What is the source of the cost data analyzed in Chesapeake's ACOSS?**

13 A. All cost of service data have been extracted from the Company's total cost of
14 service (i.e., basic rate revenue requirement) contained in this general rate case
15 filing for the test year ending June 30, 2015, the partially forecasted test period
16 ending March 31, 2016. Where more detailed information was required to
17 perform various analyses related to certain plant and expense elements, the data
18 was derived from the historical books and records of the Company and
19 information provided by company personnel.

20 **Q. How are the rate classes structured for purposes of the ACOSS?**

21 A. The ACOSS evaluated eight rate classes: RS-1 (Residential Service-1), RS-2
22 (Residential Service-2), GS (General Service), MVS (Medium Volume Service),

1 LVS (Large Volume Service), HLFS (High Load Factor Service), GLR (Gas
2 Lighting Residential), and IS (Interruptible Transportation Service). For cost
3 allocation purposes those customers within expansion areas were included in
4 their corresponding rate (e.g., ERS-1, Expansion Area Residential Service-1
5 customers were included in RS-1). Further; GS, MVS, LVS, and HLFS included
6 costs and revenues from both the sales and transportation customers.

7 **Q. How were Production Plant costs treated in the ACOSS?**

8 A. The plant related to Chesapeake's Liquid Petroleum assets were allocated to the
9 customer classes on the basis of their respective contribution to peak day
10 demand under system design weather conditions; on a "design day" basis.

11 **Q. How did the Company's ACOSS classify and allocate investment in**
12 **Distribution Mains?**

13 A. The Company classified 57.5% of its investment in distribution mains as
14 customer related and 42.5% of the investment as demand related. The customer
15 related portion of the distribution mains investment was then allocated based on
16 the number of customers on Chesapeake's system. The demand related
17 investment was allocated to the customer classes on the basis of their respective
18 contribution to peak day demand under system design weather conditions, in
19 other words, on a "design day" basis.

20 **Q. Was this similar to the study utilized in Chesapeake's 2007 general base**
21 **rate filing?**

22 A. Yes. The methodology is the same as the method utilized in the 2007 study.
23 However the 2007 study assumed a minimum size main of 1¼ inch; which
24 resulted in a 71.9% customer component. Whereas the study that is being relied

1 upon in this proceeding utilized a 2 inch minimum sized main, resulting in a
2 57.5% customer component.

3 **Q. Are there generally accepted methods for preparing classification studies?**

4 A. It is widely accepted that distribution mains (FERC Account No. 376) are installed
5 to meet both system peak period load requirements and to connect customers to
6 the Local Distribution Company's ("LDC's") gas system. Therefore, to ensure
7 that the rate classes that cause the Company to incur this plant investment or
8 expense are charged with its cost, distribution mains should be allocated to the
9 rate classes in proportion to their peak period load requirements and number of
10 customers.

11 There are two cost factors that influence the level of distribution mains
12 facilities installed by an LDC in expanding its gas distribution system. First, the
13 size of the distribution main (i.e., the diameter of the main) is directly influenced
14 by the sum of the peak period gas demands placed on the LDC's gas system by
15 its customers. Secondly, the total installed footage of distribution mains is
16 influenced by the need to expand the distribution system grid to connect new
17 customers to the system. Therefore, to recognize that these two cost factors
18 influence the level of investment in distribution mains, it is appropriate to allocate
19 such investment based on both peak period demands and the number of
20 customers served by the LDC.

21 **Q. Is the method used by the Company to determine a customer cost**
22 **component of distribution mains a generally accepted technique for**
23 **determining customer costs?**

1 A. Yes. The two most commonly used methods for determining the customer cost
2 component of distribution mains facilities consist of the following: (1) the zero-
3 intercept approach and (2) the most commonly installed, minimum-sized unit of
4 plant investment. Under the minimum-sized unit approach, which is the method
5 utilized in the Company's cost study, a customer cost component is developed
6 through re-calculating the cost of a minimum size system by replacing all mains
7 at the unit cost of a minimum diameter main (2 inch main in this study). The
8 calculated cost of this minimum sized system is then divided into the total cost of
9 the mains to determine the portion that is customer related and the remaining
10 portion is classified as demand related. The analysis in support of this study is
11 included in Exhibit JDT-3.

12 Two of the more commonly accepted literary references relied upon when
13 preparing embedded cost of service studies, Electric Utility Cost Allocation
14 Manual, by John J. Doran et al, National Association of Regulatory Utility
15 Commissioners ("NARUC"), and Gas Rate Fundamentals, American Gas
16 Association, both describe minimum system concepts and methods as an
17 appropriate technique for determining the customer component of utility
18 distribution facilities. The existence and utilization of a customer component of
19 distribution facilities, specifically for distribution mains, is a fully supportable and
20 commonly used approach in the gas industry.

21 **Q. How were Distribution Plant costs treated in the ACOSS?**

22 A. As indicated above, Distribution Mains were functionalized to customer and
23 demand and allocated based on the customer count and design day allocator.

1 Where possible, costs were directly allocated to the customer classes based on
2 the data contained in the Company plant records (i.e., FERC Account 383 -
3 House Regulators. Special studies were conducted for the costs in FERC
4 Account Nos. 380 (Services); 381 (Meters); 382 (Meter Installations); and 385
5 (Industrial M&R Equipment). Details on these studies are provided in JDT-3
6 including a narrative description of the process undertaken. The costs in FERC
7 Account Nos. 378 (General M&R Equipment) and 379 (City Gate M&R
8 Equipment) were allocated on a "Peak and Average" allocator; in this instance a
9 50/50 weighting of a class's contribution to the system's design day and the
10 system's total annual throughput.

11 **Q. How were the General Plant costs classified and allocated in the ACOSS?**

12 A. General Plant costs were classified and allocated to the rate classes based on an
13 internal allocation factor generated from the results of the classification and
14 allocation of production and distribution plant costs.

15 **Q. How were Operation and Maintenance expenses classified and allocated in**
16 **the ACOSS?**

17 A. Generally, the classification and allocation of the Operation and Maintenance
18 ("O&M") expenses followed the treatment of the related plant accounts with the
19 exception of Account Nos. 870 (Distribution Operations Supervision and
20 Engineering), 871 (Distribution Load Dispatching), 880 (Distribution Office), and
21 881 (Distribution Rents). The distribution supervision, office and rent expenses
22 were allocated on internal factors based on the classification and allocation of the
23 directly allocated costs. Account No. 871 was allocated on total throughput.

Further, FERC Account No. 879 (Customer Installation Expenses) was directly assigned to those classes for which installations expense were incurred.

Q. Please describe the classification and allocation of Customer Accounts and Customer Service expenses in the ACOSS?

A. All of these expenses were classified as customer-related costs and allocated based on the number of customers by class. Exceptions to this treatment were Account Nos. 901 (Supervision) and 904 (Bad Debt Write-offs). Supervision expenses were allocated based on the other directly allocated costs in the category. Bad debt expenses were assigned to the classes based on the historical expense levels for each class.

Q. Please explain the treatment of Administrative and General expenses in the ACOSS?

A. The majority of the Administrative and General ("A&G") expenses were classified and allocated based on either labor or plant according to the nature of the underlying costs, that is, whether the particular A&G expense was labor-related or plant-related. Account 928 (Regulatory Commission) expenses, which consist of legal, consulting and other outside services fees related to the processing of the Company's general rate case, were allocated on the basis of rate base.

Q. Please explain how Depreciation expenses and Taxes Other Than Income were treated in the ACOSS?

A. The classification and allocation of Depreciation expenses followed the allocation of the plant to which these costs are related. Taxes Other Than Income were allocated on the basis of either labor (e.g., Payroll taxes) or plant (e.g., Property

1 taxes) depending on the nature of the tax, that is, the basis upon which the tax or
2 fee is assessed.

3 **IV. ACOSS Results**

4 **Q. Please summarize the results of the ACOSS.**

5 A. As shown on Exhibit JDT-1 page 3, the ACOSS indicates that at current rates the
6 Company's overall rate of return is 6.20% for the test year, and 4.61% for the test
7 period (page 4) which is below the proposed overall rate of return of 8.55% (page
8 5). For the test period, as detailed on page 4, the non-interruptible class rates of
9 return vary from a negative 4.84% to a positive 23.76%.

10 Exhibit JDT-1 page 5 contains the revenue requirement at equal rates of
11 return such that the company would recover its requested 8.55% return equally
12 from all rate classes. Page 6 provides similar information at the proposed
13 revenues by class as described in more detail by Company Witness Ronald
14 Amen. The remaining pages of Exhibit JDT-1 provide the functional rate base
15 and functional revenue requirement inclusive and exclusive of Miscellaneous Fee
16 Revenue.

17 **VI. Conclusion**

18
19 **Q. Does this conclude your testimony?**

20 A. Yes.

John D. Taylor

Mr. Taylor has supported projects involving financial analysis, regulatory support and strategy, market assessment, litigation support, and organizational and operations reviews. Mr. Taylor's work often involves providing support for regulatory proceedings by conducting various studies and analyses related to revenue requirements, affiliate transactions, class cost of service, and cash working capital studies. He also has experience in asset and corporate valuation, the application of real options analysis, and various risk management techniques. Mr. Taylor has also been involved in the sale of generating assets, supporting due diligence efforts and regulatory approval processes. He has filed testimony as an expert witness on class cost of service studies and on the appropriate use of statistical analysis during audit testing.

REPRESENTATIVE PROJECT EXPERIENCE

Rate Design and Regulatory Proceedings

Mr. Taylor has worked on several electric and gas rate cases including the development of revenue requirements, class cost of service studies, and projects related to utility rate design issues. Specifically, he has:

- Supported the development of an allocated class cost of service study and rate design for a Midwest electric utility.
- Developed revenue requirement model to comply with a new performance based formula ratemaking process for a Midwest electric utility.
- Supported the developed of time of use rates.
- Assessed the consequences of a divestiture on the cost of service model for a New England gas distribution company.
- Analyzed and summarized allocation methodology for a shared services company.
- Constructed the cost of service model for a Texas electric distribution utility.
- Assessed the reasonableness of costs through various benchmarking efforts.
- Led the effort to collect and organize plant addition documentation for six Midwest utilities associated with the state commission's audit of rate base.
- Supported lead-lag analysis and testimony.
- Analyzed customer usage profiles to support reclassification of rate classes for a gas utility.
- Helped conduct a marginal cost analysis to support rate design testimony.
- Conducted research on performance-based ratemaking and applicable precedents.

PRINCIPAL CONSULTANT

Specialization:

Utility Costing and Pricing, Expert Witness Testimony, Transaction Facilitation, Revenue Requirements, Statistics, Valuation, Market Studies, Rate Case Management, Transaction Facilitation, Energy Litigation Support, Expert Testimony

Office Location

Richmond, VA

Education

- M.A., Economics, American University, 2005
- B.A., Environmental Economics, University of North Carolina at Asheville, 2004...

Year Career Started

2000

Year Started with B&V

2015

- Conducted a regression analysis to forecast use per customer to support a rate case for a gas utility.

Transaction Experience

Mr. Taylor has been involved with several generating asset transactions supporting both buy side and sell side analysis and due diligence. His work has included:

- Helped facilitate and manage processes for a nuclear plant auction by processing Q&A, collecting relevant documentation and managing the virtual data room for auction participants.
- Supported the auction process for steam and chilled water distribution and generation assets in the Midwest.
- Provided research on comparable transactions, previous mergers and acquisitions, and potential transaction opportunities for several clients.

Litigation Support and Expert Testimony

Mr. Taylor has testified in several cases on class cost of service studies and statistical audit methods. He has also supported numerous other expert testimonies. Specifically, he has:

- Filed testimony as an expert witness on allocated class cost of service studies.
- Filed testimony as an expert witness on the application of statistical analysis.
- Compared revenue recovery mechanisms in multiple jurisdictions in support of return on equity testimony.
- Supported affiliate cost testimony for a New England utility and for a Midwest utility.
- Supported testimony relating to the regulatory approval of assets sales and the recovery of shared services charges to regulated affiliates.
- Performed asset valuations associated with spent nuclear fuel litigation.
- Conducted research to support testimony associated with the decoupling of gas rates.
- Supported testimony and produced a discounted cash flow analysis relating to a 'lease in lease out' transaction in the Netherlands.
- Provided research on precedents and ratemaking theory regarding consolidated tax adjustments to support expert testimony.

Financial Analysis

Other financial analysis Mr. Taylor has conducted include:

- Modeling alternative mechanisms for the allocation of overhead costs to a nuclear plant.

- Analyzing the implications of a merchant power plant entering into a financial swap.
- Assisting with the creation of a replacement cost model used to value generation assets.
- Researching regulations associated with a foreign company establishing a U.S. natural gas marketing division.

Market Research Experience

Other market research activities Mr. Taylor has been involved with include:

- Developed distributed CNG/LNG market studies for two separate utilities and two separate competitive market participants.
- Participated in the development of a peak shaving service market study for a mid-Atlantic utility.
- Researching and creating summaries of recent pipeline projects and LNG receiving facilities.
- Conducting research on potential Caribbean investment opportunities.
- Researching market dynamics and analyzing incentive structures in several restructured states.

DATED: DECEMBER 21, 2015

STATE OF DELAWARE)
)
COUNTY OF KENT)


AFFIDAVIT OF JOHN TAYLOR

JOHN TAYLOR, being first duly sworn according to law, on oath deposes and says that he is the witness whose testimony appears as "Chesapeake Utilities Corporation, Delaware Division, Direct Testimony of John Taylor"; that, if asked the questions which appear in the text of the direct testimony, he would give the answers that are therein set forth; and that he adopts this testimony as his sworn direct testimony in these proceedings.


John Taylor

Then personally appeared this 21st day of December 2015 the above-named John Taylor and acknowledged the foregoing Testimony to be his free act and deed.
Before me,




Notary Public
My Commission Expires: 7-17-18

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION
CHESAPEAKE UTILITIES CORPORATION
EXHIBIT JDT-1
COST ALLOCATION STUDY RESULTS

Witness: John D. Taylor

Docket No. 15-XXX

CHESAPEAKE UTILITIES CORPORATION

EXHIBIT JDT-1

COST ALLOCATION STUDY RESULTS – INDEX

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Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Current Revenue Summary
Test Year at Current Revenues

| | System Total | Residential Service - 1 | Residential Service - 2 | General Service | Medium Volume Service | Large Volume Service | High Load Factor Service | Gas Lighting Residential | Interruptible Service |
|---|---------------|----------------------------|----------------------------|-----------------|--------------------------|-------------------------|-----------------------------|-----------------------------|--------------------------|
| REVENUES | \$ 23,989,324 | \$ 1,061,598 | \$ 14,661,975 | \$ 1,570,559 | \$ 897,520 | \$ 1,811,378 | \$ 3,821,311 | \$ 709 | \$ 164,272 |
| EXPENSES | | | | | | | | | |
| O & M Expense | \$ 5,260,300 | \$ 435,281 | \$ 3,843,387 | \$ 356,371 | \$ 154,442 | \$ 200,014 | \$ 265,923 | \$ 230 | \$ 4,653 |
| A & G Expense | \$ 8,445,364 | \$ 654,164 | \$ 5,994,950 | \$ 582,689 | \$ 280,488 | \$ 420,720 | \$ 503,152 | \$ 322 | \$ 8,879 |
| Depreciation Expense | \$ 2,402,831 | \$ 167,272 | \$ 1,610,697 | \$ 171,339 | \$ 96,831 | \$ 170,241 | \$ 183,210 | \$ 66 | \$ 3,175 |
| Interest on Customer Deposits | \$ 74,347 | \$ 7,070 | \$ 58,355 | \$ 6,632 | \$ 1,078 | \$ 454 | \$ 758 | \$ - | \$ - |
| Taxes Other than Income | \$ 1,807,906 | \$ 133,218 | \$ 1,258,923 | \$ 125,838 | \$ 64,797 | \$ 106,122 | \$ 117,016 | \$ 64 | \$ 1,929 |
| <i>Total Expenses</i> | \$ 17,990,748 | \$ 1,397,005 | \$ 12,766,312 | \$ 1,242,868 | \$ 597,635 | \$ 897,550 | \$ 1,070,059 | \$ 683 | \$ 18,637 |
| OPERATING INCOME BEFORE INTEREST & TAXES | \$ 5,998,576 | \$ (335,407) | \$ 1,895,664 | \$ 327,691 | \$ 299,885 | \$ 913,828 | \$ 2,751,252 | \$ 27 | \$ 145,636 |
| INCOME TAXES | \$ 1,914,520 | \$ (169,991) | \$ 420,874 | \$ 95,710 | \$ 99,673 | \$ 333,965 | \$ 1,075,960 | \$ (8) | \$ 58,338 |
| OPERATING INCOME | \$ 4,084,056 | \$ (165,416) | \$ 1,474,790 | \$ 231,981 | \$ 200,212 | \$ 579,864 | \$ 1,675,293 | \$ 34 | \$ 87,298 |
| RATE BASE | \$ 65,854,598 | \$ 4,477,783 | \$ 44,685,470 | \$ 4,748,331 | \$ 2,778,716 | \$ 4,547,753 | \$ 4,552,375 | \$ 2,400 | \$ 61,770 |
| Earned Return | 6.20% | -3.69% | 3.30% | 4.89% | 7.21% | 12.75% | 36.80% | 1.44% | 141.33% |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Current Revenue Summary
Test Period at Current Revenues

| | System Total | Residential Service - 1 | Residential Service - 2 | General Service | Medium Volume Service | Large Volume Service | High Load Factor Service | Gas Lighting Residential | Interruptible Service |
|---|---------------|----------------------------|----------------------------|-----------------|--------------------------|-------------------------|-----------------------------|-----------------------------|--------------------------|
| REVENUES | \$ 22,965,902 | \$ 887,136 | \$ 14,369,772 | \$ 1,506,503 | \$ 905,193 | \$ 2,171,020 | \$ 2,960,465 | \$ 709 | \$ 165,105 |
| EXPENSES | | | | | | | | | |
| O & M Expense | \$ 5,612,851 | \$ 431,787 | \$ 4,184,528 | \$ 381,438 | \$ 166,684 | \$ 209,387 | \$ 234,800 | \$ 245 | \$ 3,983 |
| A & G Expense | \$ 7,976,825 | \$ 565,497 | \$ 5,712,251 | \$ 545,253 | \$ 267,853 | \$ 406,781 | \$ 470,120 | \$ 299 | \$ 8,770 |
| Depreciation Expense | \$ 2,654,050 | \$ 167,715 | \$ 1,788,664 | \$ 190,981 | \$ 111,685 | \$ 193,682 | \$ 197,829 | \$ 72 | \$ 3,422 |
| Interest on Customer Deposits | \$ 74,347 | \$ 6,440 | \$ 58,960 | \$ 6,618 | \$ 1,129 | \$ 477 | \$ 723 | \$ - | \$ - |
| Taxes Other than Income | \$ 2,039,883 | \$ 136,118 | \$ 1,425,868 | \$ 141,993 | \$ 75,643 | \$ 125,384 | \$ 132,603 | \$ 70 | \$ 2,206 |
| <i>Total Expenses</i> | \$ 18,357,957 | \$ 1,307,558 | \$ 13,170,272 | \$ 1,266,283 | \$ 622,993 | \$ 935,711 | \$ 1,036,074 | \$ 685 | \$ 18,381 |
| OPERATING INCOME BEFORE INTEREST & TAXES | \$ 4,607,945 | \$ (420,422) | \$ 1,199,500 | \$ 240,220 | \$ 282,200 | \$ 1,235,308 | \$ 1,924,391 | \$ 24 | \$ 146,725 |
| INCOME TAXES | \$ 1,340,647 | \$ (207,845) | \$ 114,019 | \$ 58,418 | \$ 92,003 | \$ 469,778 | \$ 754,326 | \$ (10) | \$ 59,958 |
| OPERATING INCOME | \$ 3,267,298 | \$ (212,577) | \$ 1,085,481 | \$ 181,802 | \$ 190,198 | \$ 765,530 | \$ 1,170,065 | \$ 33 | \$ 86,767 |
| RATE BASE | \$ 70,938,750 | \$ 4,392,927 | \$ 48,316,146 | \$ 5,155,528 | \$ 3,086,925 | \$ 4,995,536 | \$ 4,924,340 | \$ 2,447 | \$ 64,902 |
| Earned Return | 4.61% | -4.84% | 2.25% | 3.53% | 6.16% | 15.32% | 23.76% | 1.35% | 133.69% |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Revenue Requirement Summary
Revenue Requirement at Equal Rates of Return

| | System Total | Residential Service - 1 | Residential Service -2 | General Service | Medium Volume Service | Large Volume Service | High Load Factor Service | Gas Lighting Residential | Interruptible Service |
|--|---------------|-------------------------|------------------------|-----------------|-----------------------|----------------------|--------------------------|--------------------------|-----------------------|
| RATE BASE | \$ 70,938,750 | \$ 4,392,969 | \$ 48,316,435 | \$ 5,155,441 | \$ 3,086,864 | \$ 4,995,449 | \$ 4,924,245 | \$ 2,447 | \$ 64,900 |
| PROPOSED RATE OF RETURN | 8.55% | 8.55% | 8.55% | 8.55% | 8.55% | 8.55% | 8.55% | 8.55% | 8.55% |
| RETURN ALLOWANCE | \$ 6,065,263 | \$ 375,599 | \$ 4,131,055 | \$ 440,790 | \$ 263,927 | \$ 427,111 | \$ 421,023 | \$ 209 | \$ 5,549 |
| INCOME TAXES | \$ 3,257,426 | \$ 201,720 | \$ 2,218,635 | \$ 236,732 | \$ 141,745 | \$ 229,385 | \$ 226,116 | \$ 112 | \$ 2,980 |
| EXPENSES | | | | | | | | | |
| O & M Expense | \$ 5,625,697 | \$ 433,005 | \$ 4,195,675 | \$ 381,822 | \$ 166,732 | \$ 209,404 | \$ 234,832 | \$ 245 | \$ 3,982 |
| A & G Expense | \$ 7,976,825 | \$ 565,511 | \$ 5,712,354 | \$ 545,199 | \$ 267,825 | \$ 406,766 | \$ 470,102 | \$ 299 | \$ 8,770 |
| Depreciation Expense | \$ 2,654,050 | \$ 167,715 | \$ 1,788,664 | \$ 190,981 | \$ 111,685 | \$ 193,682 | \$ 197,829 | \$ 72 | \$ 3,422 |
| Interest on Customer Deposits | \$ 74,347 | \$ 6,440 | \$ 58,960 | \$ 6,618 | \$ 1,129 | \$ 477 | \$ 723 | \$ - | \$ - |
| Taxes Other than Income | \$ 2,054,108 | \$ 137,001 | \$ 1,435,568 | \$ 143,021 | \$ 76,259 | \$ 126,384 | \$ 133,588 | \$ 70 | \$ 2,219 |
| <i>Total Expenses</i> | \$ 18,385,028 | \$ 1,309,672 | \$ 13,191,221 | \$ 1,267,640 | \$ 623,631 | \$ 936,712 | \$ 1,037,074 | \$ 685 | \$ 18,393 |
| REVENUE REQUIREMENT | | | | | | | | | |
| Total Expenses | \$ 18,385,028 | \$ 1,309,672 | \$ 13,191,221 | \$ 1,267,640 | \$ 623,631 | \$ 936,712 | \$ 1,037,074 | \$ 685 | \$ 18,393 |
| Total Income Taxes | \$ 3,257,426 | \$ 201,720 | \$ 2,218,635 | \$ 236,732 | \$ 141,745 | \$ 229,385 | \$ 226,116 | \$ 112 | \$ 2,980 |
| Total Return on Rate Base | \$ 6,065,263 | \$ 375,599 | \$ 4,131,055 | \$ 440,790 | \$ 263,927 | \$ 427,111 | \$ 421,023 | \$ 209 | \$ 5,549 |
| Total Revenue Requirement | \$ 27,707,717 | \$ 1,886,991 | \$ 19,540,911 | \$ 1,945,162 | \$ 1,029,303 | \$ 1,593,208 | \$ 1,684,212 | \$ 1,007 | \$ 26,923 |
| less: Miscellaneous Fee Revenue | \$ (742,783) | \$ (62,248) | \$ (470,704) | \$ (36,880) | \$ (14,564) | \$ (56,336) | \$ (99,579) | \$ (4) | \$ (2,469) |
| Remaining Revenue Requirement | \$ 26,964,933 | \$ 1,824,743 | \$ 19,070,207 | \$ 1,908,282 | \$ 1,014,739 | \$ 1,536,872 | \$ 1,584,634 | \$ 1,003 | \$ 24,454 |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Revenue Requirement at Proposed Rates of Return

| REVENUES | | | | | | | | | | | | | | | | | | |
|-------------------------------|----|-------------|----|-----------|----|------------|----|-----------|----|-----------|----|-----------|----|-----------|----|-------|----|---------|
| Base Rate Margins | \$ | 26,964,933 | \$ | 1,189,216 | \$ | 17,713,486 | \$ | 1,908,282 | \$ | 1,014,740 | \$ | 2,114,683 | \$ | 2,860,886 | \$ | 1,003 | \$ | 162,637 |
| Miscellaneous Fee Revenue | \$ | 742,783 | \$ | 62,248 | \$ | 470,704 | \$ | 36,880 | \$ | 14,564 | \$ | 56,336 | \$ | 99,579 | \$ | 4 | \$ | 2,469 |
| Total Revenues | \$ | 27,707,717 | \$ | 1,251,464 | \$ | 18,184,190 | \$ | 1,945,162 | \$ | 1,029,304 | \$ | 2,171,020 | \$ | 2,960,465 | \$ | 1,007 | \$ | 165,105 |
| EXPENSES | | | | | | | | | | | | | | | | | | |
| O & M Expense | \$ | 5,625,697 | \$ | 433,005 | \$ | 4,195,675 | \$ | 381,822 | \$ | 166,732 | \$ | 209,404 | \$ | 234,832 | \$ | 245 | \$ | 3,982 |
| A & G Expense | \$ | 7,976,825 | \$ | 565,511 | \$ | 5,712,354 | \$ | 545,199 | \$ | 267,825 | \$ | 406,766 | \$ | 470,102 | \$ | 299 | \$ | 8,770 |
| Depreciation Expense | \$ | 2,654,050 | \$ | 167,715 | \$ | 1,788,664 | \$ | 190,981 | \$ | 111,685 | \$ | 193,682 | \$ | 197,829 | \$ | 72 | \$ | 3,422 |
| Interest on Customer Deposits | \$ | 74,347 | \$ | 6,440 | \$ | 58,960 | \$ | 6,618 | \$ | 1,129 | \$ | 477 | \$ | 723 | \$ | - | \$ | - |
| Taxes Other than Income | \$ | 2,054,108 | \$ | 137,001 | \$ | 1,435,568 | \$ | 143,021 | \$ | 76,259 | \$ | 126,384 | \$ | 133,588 | \$ | 70 | \$ | 2,219 |
| Total Expenses | \$ | 18,385,028 | \$ | 1,309,672 | \$ | 13,191,221 | \$ | 1,267,640 | \$ | 623,631 | \$ | 936,712 | \$ | 1,037,074 | \$ | 685 | \$ | 18,393 |
| Interest Expense | \$ | (1,354,930) | \$ | (83,906) | \$ | (922,844) | \$ | (98,469) | \$ | (58,959) | \$ | (95,413) | \$ | (94,053) | \$ | (47) | \$ | (1,240) |
| INCOME PRIOR TO TAXES | \$ | 7,967,759 | \$ | (204,362) | \$ | 3,599,421 | \$ | 542,174 | \$ | 332,150 | \$ | 1,082,558 | \$ | 1,729,760 | \$ | 271 | \$ | 143,004 |
| Total Income Taxes | \$ | 3,257,426 | \$ | (58,100) | \$ | 1,663,973 | \$ | 236,732 | \$ | 141,746 | \$ | 465,609 | \$ | 747,881 | \$ | 112 | \$ | 59,473 |
| OPERATING INCOME | \$ | 6,065,263 | \$ | (108) | \$ | 3,328,997 | \$ | 440,790 | \$ | 263,927 | \$ | 768,698 | \$ | 1,175,511 | \$ | 209 | \$ | 87,239 |
| RATE BASE | \$ | 70,938,750 | \$ | 4,392,969 | \$ | 48,316,435 | \$ | 5,155,441 | \$ | 3,086,864 | \$ | 4,995,449 | \$ | 4,924,245 | \$ | 2,447 | \$ | 64,900 |
| Proposed Return | | 8.55% | | 0.00% | | 6.89% | | 8.55% | | 8.55% | | 15.39% | | 23.87% | | 8.55% | | 134.42% |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Functional Rate Base

| | System Total | Residential Service - 1 | Residential Service - 2 | General Service | Medium Volume Service | Large Volume Service | High Load Factor Service | Gas Lighting Residential | Interruptible Service |
|------------------------------|----------------------|-------------------------|-------------------------|---------------------|-----------------------|----------------------|--------------------------|--------------------------|-----------------------|
| Gas Supply | | | | | | | | | |
| Demand | \$ 1,525,623 | \$ 19,692 | \$ 736,957 | \$ 97,051 | \$ 105,268 | \$ 285,530 | \$ 281,125 | \$ - | \$ - |
| Commodity | \$ 1,807,272 | \$ 27,479 | \$ 1,240,718 | \$ 137,403 | \$ 141,776 | \$ 141,314 | \$ 118,562 | \$ 20 | \$ - |
| Customer | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Sub-total | \$ 3,332,895 | \$ 47,171 | \$ 1,977,675 | \$ 234,454 | \$ 247,044 | \$ 426,844 | \$ 399,687 | \$ 20 | \$ - |
| Distribution | | | | | | | | | |
| Demand | \$ 17,144,528 | \$ 219,195 | \$ 8,222,690 | \$ 1,080,160 | \$ 1,174,119 | \$ 3,216,532 | \$ 3,228,291 | \$ 4 | \$ 3,537 |
| Commodity | \$ (27,933) | \$ (206) | \$ (9,128) | \$ (1,003) | \$ (1,272) | \$ (5,806) | \$ (10,255) | \$ (0) | \$ (262) |
| Customer | \$ 51,970,082 | \$ 4,252,032 | \$ 39,270,445 | \$ 3,978,434 | \$ 1,689,530 | \$ 1,367,313 | \$ 1,348,307 | \$ 2,407 | \$ 61,614 |
| Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Sub-total | \$ 69,086,677 | \$ 4,471,021 | \$ 47,484,007 | \$ 5,057,591 | \$ 2,862,377 | \$ 4,578,038 | \$ 4,566,343 | \$ 2,411 | \$ 64,890 |
| Customer Acct/Billing | | | | | | | | | |
| Demand | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Commodity | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Customer | \$ (1,531,204) | \$ (129,805) | \$ (1,187,228) | \$ (139,640) | \$ (22,988) | \$ (9,528) | \$ (42,042) | \$ 15 | \$ 11 |
| Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Sub-total | \$ (1,531,204) | \$ (129,805) | \$ (1,187,228) | \$ (139,640) | \$ (22,988) | \$ (9,528) | \$ (42,042) | \$ 15 | \$ 11 |
| Customer Services | | | | | | | | | |
| Demand | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Commodity | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Customer | \$ 50,382 | \$ 4,582 | \$ 41,981 | \$ 3,036 | \$ 431 | \$ 95 | \$ 256 | \$ - | \$ - |
| Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Sub-total | \$ 50,382 | \$ 4,582 | \$ 41,981 | \$ 3,036 | \$ 431 | \$ 95 | \$ 256 | \$ - | \$ - |
| ~ | | | | | | | | | |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| TOTAL | | | | | | | | | |
| Demand | \$ 18,670,151 | \$ 238,887 | \$ 8,959,647 | \$ 1,177,211 | \$ 1,279,388 | \$ 3,502,062 | \$ 3,509,416 | \$ 4 | \$ 3,537 |
| Commodity | \$ 1,779,339 | \$ 27,273 | \$ 1,231,590 | \$ 136,400 | \$ 140,504 | \$ 135,508 | \$ 108,307 | \$ 20 | \$ (262) |
| Customer | \$ 50,489,259 | \$ 4,126,809 | \$ 38,125,198 | \$ 3,841,830 | \$ 1,666,973 | \$ 1,357,879 | \$ 1,306,522 | \$ 2,423 | \$ 61,625 |
| Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| TOTAL RATE BASE | \$ 70,938,750 | \$ 4,392,969 | \$ 48,316,435 | \$ 5,155,441 | \$ 3,086,864 | \$ 4,995,449 | \$ 4,924,245 | \$ 2,447 | \$ 64,900 |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Functional Revenue Requirement (Inclusive of Miscellaneous Fee Revenue)
Revenue Requirement at Equal Rates of Return

| | System Total | Residential Service - 1 | Residential Service -2 | General Service | Medium Volume Service | Large Volume Service | High Load Factor Service | Gas Lighting Residential | Interruptible Service |
|----------------------------------|----------------------|-------------------------|------------------------|---------------------|-----------------------|----------------------|--------------------------|--------------------------|-----------------------|
| Gas Supply | | | | | | | | | |
| Demand | \$ 592,273 | \$ 7,645 | \$ 286,099 | \$ 37,677 | \$ 40,867 | \$ 110,848 | \$ 109,138 | \$ - | \$ - |
| Commodity | \$ 292,612 | \$ 4,348 | \$ 191,901 | \$ 21,699 | \$ 22,538 | \$ 27,690 | \$ 24,434 | \$ 3 | \$ - |
| Customer | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| <i>Sub-total</i> | <i>\$ 884,884</i> | <i>\$ 11,992</i> | <i>\$ 478,000</i> | <i>\$ 59,375</i> | <i>\$ 63,405</i> | <i>\$ 138,537</i> | <i>\$ 133,572</i> | <i>\$ 3</i> | <i>\$ -</i> |
| Distribution | | | | | | | | | |
| Demand | \$ 4,506,490 | \$ 56,545 | \$ 2,131,154 | \$ 278,565 | \$ 304,088 | \$ 849,479 | \$ 883,917 | \$ 3 | \$ 2,740 |
| Commodity | \$ 368,397 | \$ 2,714 | \$ 120,390 | \$ 13,223 | \$ 16,780 | \$ 76,579 | \$ 135,257 | \$ 4 | \$ 3,450 |
| Customer | \$ 15,576,086 | \$ 1,262,234 | \$ 11,654,227 | \$ 1,189,432 | \$ 524,293 | \$ 468,184 | \$ 456,827 | \$ 605 | \$ 20,284 |
| Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| <i>Sub-total</i> | <i>\$ 20,450,972</i> | <i>\$ 1,321,493</i> | <i>\$ 13,905,770</i> | <i>\$ 1,481,220</i> | <i>\$ 845,161</i> | <i>\$ 1,394,241</i> | <i>\$ 1,476,001</i> | <i>\$ 612</i> | <i>\$ 26,474</i> |
| Customer Acct/Billing | | | | | | | | | |
| Demand | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Commodity | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Customer | \$ 4,409,500 | \$ 375,029 | \$ 3,521,980 | \$ 286,309 | \$ 103,951 | \$ 56,737 | \$ 64,652 | \$ 392 | \$ 449 |
| Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| <i>Sub-total</i> | <i>\$ 4,409,500</i> | <i>\$ 375,029</i> | <i>\$ 3,521,980</i> | <i>\$ 286,309</i> | <i>\$ 103,951</i> | <i>\$ 56,737</i> | <i>\$ 64,652</i> | <i>\$ 392</i> | <i>\$ 449</i> |
| Customer Services | | | | | | | | | |
| Demand | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Commodity | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Customer | \$ 1,962,361 | \$ 178,477 | \$ 1,635,161 | \$ 118,257 | \$ 16,786 | \$ 3,693 | \$ 9,988 | \$ - | \$ - |
| Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| <i>Sub-total</i> | <i>\$ 1,962,361</i> | <i>\$ 178,477</i> | <i>\$ 1,635,161</i> | <i>\$ 118,257</i> | <i>\$ 16,786</i> | <i>\$ 3,693</i> | <i>\$ 9,988</i> | <i>\$ -</i> | <i>\$ -</i> |
| ~ | | | | | | | | | |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| TOTAL | | | | | | | | | |
| Demand | \$ 5,098,763 | \$ 64,190 | \$ 2,417,253 | \$ 316,242 | \$ 344,955 | \$ 960,327 | \$ 993,054 | \$ 3 | \$ 2,740 |
| Commodity | \$ 661,008 | \$ 7,062 | \$ 312,291 | \$ 34,921 | \$ 39,318 | \$ 104,268 | \$ 159,691 | \$ 7 | \$ 3,450 |
| Customer | \$ 21,947,946 | \$ 1,815,739 | \$ 16,811,367 | \$ 1,593,999 | \$ 645,030 | \$ 528,614 | \$ 531,467 | \$ 997 | \$ 20,733 |
| Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Revenue Requirement | \$ 27,707,717 | \$ 1,886,991 | \$ 19,540,911 | \$ 1,945,162 | \$ 1,029,303 | \$ 1,593,208 | \$ 1,684,212 | \$ 1,007 | \$ 26,923 |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Functional Revenue Requirement (Exclusive of Miscellaneous Fee Revenue)
Revenue Requirement at Equal Rates of Return

| | System Total | Residential Service - 1 | Residential Service -2 | General Service | Medium Volume Service | Large Volume Service | High Load Factor Service | Gas Lighting Residential | Interruptible Service |
|----------------------------------|----------------------|-------------------------|------------------------|---------------------|-----------------------|----------------------|--------------------------|--------------------------|-----------------------|
| Gas Supply | | | | | | | | | |
| Demand | \$ 573,464 | \$ 7,392 | \$ 279,208 | \$ 36,962 | \$ 40,289 | \$ 106,928 | \$ 102,685 | \$ - | \$ - |
| Commodity | \$ 284,691 | \$ 4,204 | \$ 187,279 | \$ 21,287 | \$ 22,219 | \$ 26,710 | \$ 22,989 | \$ 3 | \$ - |
| Customer | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| <i>Sub-total</i> | <i>\$ 858,156</i> | <i>\$ 11,597</i> | <i>\$ 466,486</i> | <i>\$ 58,250</i> | <i>\$ 62,508</i> | <i>\$ 133,638</i> | <i>\$ 125,674</i> | <i>\$ 3</i> | <i>\$ -</i> |
| Distribution | | | | | | | | | |
| Demand | \$ 4,361,155 | \$ 54,680 | \$ 2,079,818 | \$ 273,283 | \$ 299,785 | \$ 819,441 | \$ 831,655 | \$ 3 | \$ 2,489 |
| Commodity | \$ 353,898 | \$ 2,625 | \$ 117,490 | \$ 12,972 | \$ 16,543 | \$ 73,871 | \$ 127,260 | \$ 4 | \$ 3,133 |
| Customer | \$ 15,178,322 | \$ 1,220,595 | \$ 11,373,498 | \$ 1,166,881 | \$ 516,875 | \$ 451,629 | \$ 429,817 | \$ 603 | \$ 18,424 |
| Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| <i>Sub-total</i> | <i>\$ 19,893,374</i> | <i>\$ 1,277,899</i> | <i>\$ 13,570,806</i> | <i>\$ 1,453,136</i> | <i>\$ 833,203</i> | <i>\$ 1,344,940</i> | <i>\$ 1,388,733</i> | <i>\$ 610</i> | <i>\$ 24,046</i> |
| Customer Acct/Billing | | | | | | | | | |
| Demand | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Commodity | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Customer | \$ 4,299,520 | \$ 362,658 | \$ 3,437,142 | \$ 280,881 | \$ 102,480 | \$ 54,731 | \$ 60,829 | \$ 391 | \$ 408 |
| Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| <i>Sub-total</i> | <i>\$ 4,299,520</i> | <i>\$ 362,658</i> | <i>\$ 3,437,142</i> | <i>\$ 280,881</i> | <i>\$ 102,480</i> | <i>\$ 54,731</i> | <i>\$ 60,829</i> | <i>\$ 391</i> | <i>\$ 408</i> |
| Customer Services | | | | | | | | | |
| Demand | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Commodity | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Customer | \$ 1,913,884 | \$ 172,589 | \$ 1,595,773 | \$ 116,015 | \$ 16,548 | \$ 3,562 | \$ 9,397 | \$ - | \$ - |
| Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| <i>Sub-total</i> | <i>\$ 1,913,884</i> | <i>\$ 172,589</i> | <i>\$ 1,595,773</i> | <i>\$ 116,015</i> | <i>\$ 16,548</i> | <i>\$ 3,562</i> | <i>\$ 9,397</i> | <i>\$ -</i> | <i>\$ -</i> |
| ~ | | | | | | | | | |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| ~ | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| TOTAL | | | | | | | | | |
| Demand | \$ 4,934,619 | \$ 62,072 | \$ 2,359,026 | \$ 310,246 | \$ 340,074 | \$ 926,369 | \$ 934,340 | \$ 3 | \$ 2,489 |
| Commodity | \$ 638,589 | \$ 6,829 | \$ 304,768 | \$ 34,259 | \$ 38,762 | \$ 100,581 | \$ 150,250 | \$ 7 | \$ 3,133 |
| Customer | \$ 21,391,725 | \$ 1,755,841 | \$ 16,406,413 | \$ 1,563,777 | \$ 635,903 | \$ 509,922 | \$ 500,044 | \$ 993 | \$ 18,832 |
| Revenue | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Revenue Requirement | \$ 26,964,933 | \$ 1,824,743 | \$ 19,070,207 | \$ 1,908,282 | \$ 1,014,739 | \$ 1,536,872 | \$ 1,584,634 | \$ 1,003 | \$ 24,454 |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

| | | | | | | | | | |
|---------------------------------|------------------|---------------|------------------|----------------|----------------|------------------|------------------|-----------|---------------|
| <i>Transportation and Sales</i> | <i>7,763,775</i> | <i>57,200</i> | <i>2,537,154</i> | <i>278,664</i> | <i>353,638</i> | <i>1,613,856</i> | <i>2,850,480</i> | <i>84</i> | <i>72,699</i> |
| <i>Sales (in Mcf)</i> | <i>3,637,221</i> | <i>57,200</i> | <i>2,537,154</i> | <i>269,796</i> | <i>284,167</i> | <i>235,908</i> | <i>252,912</i> | <i>84</i> | <i>0</i> |
| <i>Average Customers * 12</i> | <i>565,236</i> | <i>51,036</i> | <i>467,580</i> | <i>34,416</i> | <i>5,868</i> | <i>2,472</i> | <i>3,780</i> | <i>60</i> | <i>24</i> |

Unit Cost - Customer Basis

| | System Total | Residential Service - 1 | Residential Service - 2 | General Service | Medium Volume Service | Large Volume Service | High Load Factor Service | Gas Lighting Residential | Interruptible Service |
|------------------------|-----------------|-------------------------|-------------------------|-----------------|-----------------------|----------------------|--------------------------|--------------------------|-----------------------|
| Gas Supply | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Distribution | \$ 26.85 | \$ 23.92 | \$ 24.32 | \$ 33.91 | \$ 88.08 | \$ 182.70 | \$ 113.71 | \$ 10.04 | \$ 767.69 |
| Customer Acct/Billing | \$ 7.61 | \$ 7.11 | \$ 7.35 | \$ 8.16 | \$ 17.46 | \$ 22.14 | \$ 16.09 | \$ 6.51 | \$ 16.99 |
| Customer Services | \$ 3.39 | \$ 3.38 | \$ 3.41 | \$ 3.37 | \$ 2.82 | \$ 1.44 | \$ 2.49 | \$ - | \$ - |
| - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Unit Cost | \$ 37.85 | \$ 34.40 | \$ 35.09 | \$ 45.44 | \$ 108.37 | \$ 206.28 | \$ 132.29 | \$ 16.55 | \$ 784.67 |

Unit Cost - Usage Basis

| | | | | | | | | | |
|--------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Gas Supply - Demand | \$ 0.07 | \$ 0.13 | \$ 0.11 | \$ 0.13 | \$ 0.11 | \$ 0.07 | \$ 0.04 | \$ - | \$ - |
| Gas Supply - Commodity | \$ 0.04 | \$ 0.07 | \$ 0.07 | \$ 0.08 | \$ 0.06 | \$ 0.02 | \$ 0.01 | \$ 0.03 | \$ - |
| Distribution - Demand | \$ 0.56 | \$ 0.96 | \$ 0.82 | \$ 0.98 | \$ 0.85 | \$ 0.51 | \$ 0.29 | \$ 0.04 | \$ 0.03 |
| Distribution - Commodity | \$ 0.05 | \$ 0.05 | \$ 0.05 | \$ 0.05 | \$ 0.05 | \$ 0.05 | \$ 0.04 | \$ 0.05 | \$ 0.04 |
| Total Unit Cost | \$ 0.72 | \$ 1.20 | \$ 1.05 | \$ 1.24 | \$ 1.07 | \$ 0.64 | \$ 0.38 | \$ 0.12 | \$ 0.08 |

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION
CHESAPEAKE UTILITIES CORPORATION
EXHIBIT JDT-2
ALLOCATED CLASS COST OF SERVICE STUDY
TEST PERIOD

Witness: John D. Taylor

Docket No. 15-XXX

CHESAPEAKE UTILITIES CORPORATION
EXHIBIT JDT-2
ALLOCATED CLASS COST OF SERVICE STUDY
TEST YEAR – INDEX

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Chesapeake Utilities - Delaware Division

Cost of Service Analysis - Inputs

Account Factor Choice

Test Period at Proposed Revenues

| No. | Account Description | Amount | Function | Classifier | DEM | COM | CUS | REV | Internal |
|---------------------------|--------------------------------|--------------------|----------|------------|------|-----|---------|-----|-----------|
| RATE BASE | | | | | | | | | |
| Plant-in Service | | | | | | | | | |
| Intangible Plant | | | | | | | | | |
| | Organization Expense | 6,038 | | | | | | | PD_PLANT |
| | Franchise and Consent | 248 | | | | | | | PD_PLANT |
| | Misc. Intangible Plant | 3,000 | | | | | | | PD_PLANT |
| | Sub-total | 9,286 | | | | | | | |
| Production Plant | | | | | | | | | |
| | Land and Land Rights | 1,236,589 | F_PRODU | DEM | DD | | | | |
| | Depreciable Land Rights | - | F_PRODU | DEM | DD | | | | |
| | Structures and Improvements | 224,540 | F_PRODU | DEM | DD | | | | |
| | Liquid Petroleum Gas Equipment | 3,346,977 | F_PRODU | DEM | DD | | | | |
| | Sub-total | 4,808,105 | | | | | | | |
| Distribution Plant | | | | | | | | | |
| | Mains | 63,275,399 | F_DISTR | MIN | DD | | CUST | | |
| | M & R Stations - General | 209,392 | F_DISTR | DEM | PAVG | | | | |
| | M & R Stations - City Gate | 1,042,889 | F_DISTR | DEM | PAVG | | | | |
| | Services | 32,773,250 | F_DISTR | CUS | | | SERVICE | | |
| | Meters | 11,037,872 | F_DISTR | CUS | | | MET | | |
| | Meter Installations | 5,901,032 | F_DISTR | CUS | | | MET | | |
| | Regulating Equipment | 2,143,325 | F_DISTR | CUS | | | REG | | |
| | M & R Stations - Industrial | 1,727,660 | F_DISTR | CUS | | | MNR | | |
| | Other Equipment | 363,074 | | | | | | | DIS_PLANT |
| | Sub-total | 118,473,894 | | | | | | | |
| General Plant | | | | | | | | | |
| | Structures and Improvements | 287,023 | | | | | | | PD_PLANT |
| | Office Equipment | 1,052,106 | | | | | | | PD_PLANT |
| | Vax System Equipment | - | | | | | | | PD_PLANT |
| | Transportation Equipment | 2,040,017 | | | | | | | PD_PLANT |
| | Tools and Work Equipment | 434,368 | | | | | | | PD_PLANT |
| | Laboratory Equipment | - | | | | | | | PD_PLANT |
| | Power Operated Equipment | 674,971 | | | | | | | PD_PLANT |
| | Communication Equipment | - | | | | | | | PD_PLANT |
| | Miscellaneous Equipment | 248,188 | | | | | | | PD_PLANT |
| | Other Intangible Property | - | | | | | | | PD_PLANT |
| | Plant Leased to Others | - | | | | | | | PD_PLANT |
| | Sub-total | 4,736,673 | | | | | | | |
| | TOTAL PLANT-IN-SERVICE | 128,027,958 | | | | | | | |

Chesapeake Utilities - Delaware Division

Cost of Service Analysis - Inputs

Account Factor Choice

Test Period at Proposed Revenues

| No. | Account Description | Amount | Function | Classifier | DEM | COM | CUS | REV | Internal |
|---|-----------------------------------|---------------------|----------|------------|------|-----|---------|-----|-----------|
| Accumulated Reserve for Depreciation | | | | | | | | | |
| Intangible Plant | | | | | | | | | |
| | Organization Expense | - | | | | | | | PD_PLANT |
| | Franchise and Consent | - | | | | | | | PD_PLANT |
| | Misc. Intangible Plant | - | | | | | | | PD_PLANT |
| | Sub-total | - | | | | | | | |
| Production Plant | | | | | | | | | |
| | Land and Land Rights | (101,996) | F_PRODU | DEM | DD | | | | |
| | Depreciable Land Rights | - | F_PRODU | DEM | DD | | | | |
| | Structures and Improvements | (143,206) | F_PRODU | DEM | DD | | | | |
| | Liquid Petroleum Gas Equipment | (1,757,693) | F_PRODU | DEM | DD | | | | |
| | Sub-total | (2,002,895) | | | | | | | |
| Distribution Plant | | | | | | | | | |
| | Mains | (15,193,054) | F_DISTR | MIN | DD | | CUST | | |
| | M & R Stations - General | (50,311) | F_DISTR | DEM | PAVG | | | | |
| | M & R Stations - City Gate | (482,002) | F_DISTR | DEM | PAVG | | | | |
| | Services | (11,632,528) | F_DISTR | CUS | | | SERVICE | | |
| | Meters | (301,233) | F_DISTR | CUS | | | MET | | |
| | Meter Installations | (1,869,000) | F_DISTR | CUS | | | MET | | |
| | Regulating Equipment | (573,834) | F_DISTR | CUS | | | REG | | |
| | M & R Stations - Industrial | (649,227) | F_DISTR | CUS | | | MNR | | |
| | Other Equipment | (54,182) | | | | | | | DIS_PLANT |
| | Sub-total | (30,805,372) | | | | | | | |
| General Plant | | | | | | | | | |
| | Structures and Improvements | (285,944) | | | | | | | PD_PLANT |
| | Office Equipment | 7,441 | | | | | | | PD_PLANT |
| | Vax System Equipment | - | | | | | | | PD_PLANT |
| | Transportation Equipment | (1,140,185) | | | | | | | PD_PLANT |
| | Tools and Work Equipment | (36,706) | | | | | | | PD_PLANT |
| | Laboratory Equipment | - | | | | | | | PD_PLANT |
| | Power Operated Equipment | (371,658) | | | | | | | PD_PLANT |
| | Communication Equipment | 57,843 | | | | | | | PD_PLANT |
| | Miscellaneous Equipment | (170,666) | | | | | | | PD_PLANT |
| | Other Intangible Property | - | | | | | | | PD_PLANT |
| | Plant Leased to Others | - | | | | | | | PD_PLANT |
| | Sub-total | (1,939,874) | | | | | | | |
| | Retirement Work in Process | 10,942 | | | | | | | PD_PLANT |
| | TOTAL DEPRECIATION ACCRUAL | (34,737,200) | | | | | | | |

Chesapeake Utilities - Delaware Division

Cost of Service Analysis - Inputs

Account Factor Choice

Test Period at Proposed Revenues

| No. | Account Description | Amount | Function | Classifier | DEM | COM | CUS | REV | Internal |
|--|--------------------------------|---------------------|----------|------------|-----|--------|---------|-----|-----------|
| Rate Base Adjustments and Working Capital | | | | | | | | | |
| Accumulated Deferred Income Tax | | | | | | | | | |
| | Accelerated Depreciation | (23,689,863) | | | | | | | DEP |
| | Bad Debts | 47,610 | F_DISTR | CUS | | | BADDEBT | | |
| | Capital Interest & Overheads | 176,551 | | | | | | | DIS_PLANT |
| | Pension | 196,895 | | | | | | | LABOR |
| | Incentive Compenstation | 207,781 | | | | | | | LABOR |
| | Other Post Retirement Benefits | 210,778 | | | | | | | LABOR |
| | Insurance Reserves | (60,896) | | | | | | | DIS_PLANT |
| | Self-Insurance | 214,028 | | | | | | | LABOR |
| | Regulatory Asset | 59,148 | | | | | | | OM |
| | Real Property and Repairs | (300,581) | | | | | | | DIS_PLANT |
| | Sub-total | (22,938,550) | | | | | | | |
| Other Rate Base Adjustments | | | | | | | | | |
| | Customer Deposits | (1,698,560) | F_CBILL | CUS | | | CUSDEP | | |
| | Customer Advances | (27,692) | F_CBILL | CUS | | | CUSADV | | |
| | Operating Reserves | (1,547,011) | | | | | | | LABOR |
| | Nat. Gas in Storage | 1,538,611 | F_PRODU | COM | | SSALES | | | |
| | Propane in Storage | 264,685 | F_PRODU | COM | | CDD | | | |
| | Plant M&S | 365,301 | | | | | | | PD_PLANT |
| | Cash Working Capital | 1,028,566 | | | | | | | OM |
| | CWIP | 662,641 | | | | | | | MAINS |
| | Sub-total | 586,541 | | | | | | | |
| | TOTAL OTHER RATE BASE | (22,352,008) | | | | | | | |
| | TOTAL RATE BASE | 70,938,750 | | | | | | | |

Chesapeake Utilities - Delaware Division

Cost of Service Analysis - Inputs

Account Factor Choice

Test Period at Proposed Revenues

| No. | Account Description | Amount | Function | Classifier | DEM | COM | CUS | REV | Internal |
|------------------------------|--|------------------|----------|------------|------|------|----------|-----|-----------|
| EXPENSES | | | | | | | | | |
| O & M Expenses | | | | | | | | | |
| Production Ops | | | | | | | | | |
| | Liquefied Petroleum Gas Expenses | 29,966 | F_PRODU | COM | | CDD | | | |
| | Liquefied Petroleum Gas | - | F_PRODU | COM | | CDD | | | |
| | Operation Labor & Expense | 30,718 | F_PRODU | DEM | DD | | | | |
| | Sub-total | 60,684 | | | | | | | |
| Purchased Gas Expense | | | | | | | | | |
| | - | - | | | | | | | |
| | - | - | | | | | | | |
| | - | - | | | | | | | |
| | - | - | | | | | | | |
| | - | - | | | | | | | |
| | - | - | | | | | | | |
| | - | - | | | | | | | |
| | Sub-total | - | | | | | | | |
| Distribution Ops | | | | | | | | | |
| | Operation Supervision & Engineering | 471,559 | | | | | | | DIS_LABOR |
| | Distribution Load Dispatching - Direct | - | | | | | | | |
| | Distribution Load Dispatching | 0 | F_DISTR | COM | | THRU | | | |
| | Mains & Services Expenses | 490,800 | | | | | | | M_S |
| | M & R Station Expense - General | 14,144 | F_DISTR | DEM | PAVG | | | | |
| | M & R Station Expense - Industrial | 20,867 | F_DISTR | CUS | | | MNR | | |
| | M & R Station Expenses - City Gate | 10,523 | F_DISTR | DEM | PAVG | | | | |
| | Meter and House Regulator Expense | 378,244 | | | | | | | M_HR |
| | Customer Installation Expenses | 66,046 | F_DISTR | CUS | | | CINSTALL | | |
| | Other Expenses - Distribution | 3,236 | | | | | | | DIS_PLANT |
| | Rents - Distribution | 5,881 | | | | | | | DIS_PLANT |
| | Negative Salvage Value | - | | | | | | | |
| | Sub-total | 1,461,299 | | | | | | | |
| Customer Service Ops | | | | | | | | | |
| | Supervision - Customer Accounting | 268,386 | | | | | | | C_LABOR |
| | Meter Reading Expenses | 271,965 | F_CBILL | CUS | | | CMET | | |
| | Customer Records & Collection Expenses | 1,702,321 | F_CBILL | CUS | | | CREC | | |
| | Uncollectible Accounts | 141,823 | F_CBILL | CUS | | | BADDEBT | | |
| | Info & Instructional Exp | 64,633 | F_CBILL | CUS | | | SCUSTS | | |
| | Sub-total | 2,449,128 | | | | | | | |
| Sales Ops | | | | | | | | | |
| | - | - | | | | | | | |
| | Demonstrating & Selling Expenses | 791,955 | F_CSERV | CUS | | | SCUSTS | | |
| | Advertising Expenses | 144,614 | F_CSERV | CUS | | | SCUSTS | | |
| | Sub-total | 936,569 | | | | | | | |

Chesapeake Utilities - Delaware Division

Cost of Service Analysis - Inputs

Account Factor Choice

Test Period at Proposed Revenues

| No. | Account Description | Amount | Function | Classifier | DEM | COM | CUS | REV | Internal |
|---------------------------------|--|------------------|----------|------------|------|------|----------|-----|-----------|
| Production Maintenance | | | | | | | | | |
| | Maintenance of Structures & Improvements | - | | | | | | | P_PLANT |
| | Maintenance of Production Equipment | 47,461 | | | | | | | P_PLANT |
| | Sub-total | 47,461 | | | | | | | |
| Distribution Maintenance | | | | | | | | | |
| | Structures & Improvements | - | | | | | | | DIS_PLANT |
| | Mains & Services Expenses | 315,432 | | | | | | | M_S |
| | M & R Station Equipment - General | 28,701 | F_DISTR | DEM | PAVG | | | | |
| | M & R Station Equipment - Industrial | 65,713 | F_DISTR | CUS | | | MNR | | |
| | M & R Station Equipment - City Gate | 4,898 | F_DISTR | DEM | PAVG | | | | |
| | Services | 138,657 | F_DISTR | CUS | | | SERVICE | | |
| | Meters & House Regulators | 100,120 | | | | | | | M_HR |
| | Other Equipment | 17,035 | | | | | | | DIS_PLANT |
| | Sub-total | 670,556 | | | | | | | |
| | TOTAL O & M EXPENSES | 5,625,697 | | | | | | | |
| Labor Expense | | | | | | | | | |
| Production Ops | | | | | | | | | |
| | Liquefied Petroleum Gas Expenses | 9,377 | F_PRODU | COM | | CDD | | | |
| | Liquefied Petroleum Gas | - | F_PRODU | COM | | CDD | | | |
| | Operation Labor & Expense | - | F_PRODU | DEM | DD | | | | |
| | Sub-total | 9,377 | | | | | | | |
| Distribution Ops | | | | | | | | | |
| | Operation Supervision & Engineering | 407,188 | | | | | | | DIS_LABOR |
| | Distribution Load Dispatching | 152,294 | F_DISTR | COM | | THRU | | | |
| | Mains & Services Expenses | 317,881 | | | | | | | M_S |
| | M & R Station Expense - General | 778 | F_DISTR | DEM | PAVG | | | | |
| | M & R Station Expense - Industrial | 10,600 | F_DISTR | CUS | | | MNR | | |
| | M & R Station Expenses - City Gate | 5,612 | F_DISTR | DEM | PAVG | | | | |
| | Meter and House Regulator Expense | 283,521 | | | | | | | M_HR |
| | Customer Installation Expenses | 110,223 | F_DISTR | CUS | | | CINSTALL | | |
| | Other Expenses - Distribution | 153 | | | | | | | DIS_PLANT |
| | Rents - Distribution | - | | | | | | | DIS_PLANT |
| | Sub-total | 1,288,251 | | | | | | | |
| Customer Service Ops | | | | | | | | | |
| | Supervision - Customer Accounting | 218,064 | | | | | | | C_LABOR |
| | Meter Reading Expenses | 222,802 | F_CBILL | CUS | | | CMET | | |
| | Customer Records & Collection Expenses | 995,377 | F_CBILL | CUS | | | CREC | | |
| | Uncollectible Accounts | - | F_CBILL | CUS | | | BADDEBT | | |
| | Customer Assistance Expenses | - | F_CBILL | CUS | | | SCUSTS | | |
| | Sub-total | 1,436,243 | | | | | | | |

Chesapeake Utilities - Delaware Division

Cost of Service Analysis - Inputs

Account Factor Choice

Test Period at Proposed Revenues

| No. | Account Description | Amount | Function | Classifier | DEM | COM | CUS | REV | Internal |
|---|--|------------------|----------|------------|------|-----|---------|-----|-----------|
| Sales Ops | | | | | | | | | |
| | Demonstrating & Selling Expenses | 674,073 | F_CSERV | CUS | | | SCUSTS | | |
| | Advertising Expenses | - | F_CSERV | CUS | | | SCUSTS | | |
| | Sub-total | 674,073 | | | | | | | |
| Distribution Maintenance | | | | | | | | | |
| | Structures & Improvements | - | | | | | | | DIS_PLANT |
| | Mains & Services Expenses | 125,645 | | | | | | | M_S |
| | M & R Station Equipment - General | 28,095 | F_DISTR | DEM | PAVG | | | | |
| | M & R Station Equipment - Industrial | 17,790 | F_DISTR | CUS | | | MNR | | |
| | M & R Station Equipment - City Gate | 4,009 | F_DISTR | DEM | PAVG | | | | |
| | Services | 88,852 | F_DISTR | CUS | | | SERVICE | | |
| | Meters & House Regulators | 20,024 | | | | | | | M_HR |
| | Other Equipment | - | | | | | | | DIS_PLANT |
| | Sub-total | 284,415 | | | | | | | |
| Production Maintenance | | | | | | | | | |
| | Maintenance of Structures & Improvements | - | | | | | | | P_PLANT |
| | Maintenance of Production Equipment | 8,194 | | | | | | | P_PLANT |
| | Sub-total | 8,194 | | | | | | | |
| | TOTAL LABOR EXPENSE | 3,700,554 | | | | | | | |
| A & G Expenses | | | | | | | | | |
| Administrative & General Ops | | | | | | | | | |
| | Administrative & General Salaries | 3,341,431 | | | | | | | LABOR |
| | Office Supplies & Expenses | 852,815 | | | | | | | PD_PLANT |
| | Outside Services | 1,032,630 | | | | | | | PD_PLANT |
| | Property Insurance | 25,719 | | | | | | | PD_PLANT |
| | Injuries & Damages | 335,053 | | | | | | | PD_PLANT |
| | Employee Pensions & Benefits | 1,409,073 | | | | | | | LABOR |
| | Regulatory Commission Expenses | 247,134 | | | | | | | BASE |
| | General Advertising - A & G | 21,979 | | | | | | | PD_PLANT |
| | Misc. General Expenses | 259,469 | | | | | | | PD_PLANT |
| | Rents - A & G | 331,663 | | | | | | | LABOR |
| | Sub-total | 7,856,967 | | | | | | | |
| Administrative & General Maintenance | | | | | | | | | |
| | General Plant | 119,858 | | | | | | | PD_PLANT |
| | Sub-total | 119,858 | | | | | | | |
| | TOTAL A&G EXPENSES | 7,976,825 | | | | | | | |

Chesapeake Utilities - Delaware Division

Cost of Service Analysis - Inputs

Account Factor Choice

Test Period at Proposed Revenues

| No. | Account Description | Amount | Function | Classifier | DEM | COM | CUS | REV | Internal |
|--|-----------------------------------|-------------------|----------|------------|------|-----|---------|-----|-----------|
| Depreciation & Amortization Expense | | | | | | | | | |
| Intangible Plant | | | | | | | | | |
| | Organization Expense | - | | | | | | | PD_PLANT |
| | Franchise and Consent | - | | | | | | | PD_PLANT |
| | Misc. Intangible Plant | - | | | | | | | PD_PLANT |
| | UtiliCIS | - | F_CSERV | CUS | | | CUST | | |
| | Sub-total | - | | | | | | | |
| Production Plant | | | | | | | | | |
| | Land and Land Rights | - | F_PRODU | DEM | DD | | | | |
| | Depreciable Land Rights | 14,812 | F_PRODU | DEM | DD | | | | |
| | Structures and Improvements | 4,090 | F_PRODU | DEM | DD | | | | |
| | Liquid Petroleum Gas Equipment | 110,841 | F_PRODU | DEM | DD | | | | |
| | Sub-total | 129,743 | | | | | | | |
| Distribution Plant | | | | | | | | | |
| | Mains | 1,076,974 | F_DISTR | MIN | DD | | CUST | | |
| | M & R Stations - General | 7,910 | F_DISTR | DEM | PAVG | | | | |
| | M & R Stations - City Gate | 39,734 | F_DISTR | DEM | PAVG | | | | |
| | Services | 712,438 | F_DISTR | CUS | | | SERVICE | | |
| | Meters | 268,755 | F_DISTR | CUS | | | MET | | |
| | Meter Installations | 138,926 | F_DISTR | CUS | | | MET | | |
| | Regulating Equipment | 38,489 | F_DISTR | CUS | | | REG | | |
| | M & R Stations - Industrial | 73,721 | F_DISTR | CUS | | | MNR | | |
| | Other Equipment | 15,319 | | | | | | | DIS_PLANT |
| | Sub-total | 2,372,266 | | | | | | | |
| General Plant | | | | | | | | | |
| | Structures and Improvements | 57,405 | | | | | | | PD_PLANT |
| | Office Equipment | 43,182 | | | | | | | PD_PLANT |
| | Vax System Equipment | - | | | | | | | PD_PLANT |
| | Transportation Equipment | (15,426) | | | | | | | PD_PLANT |
| | Tools and Work Equipment | 11,165 | | | | | | | PD_PLANT |
| | Laboratory Equipment | - | | | | | | | PD_PLANT |
| | Power Operated Equipment | 44,696 | | | | | | | PD_PLANT |
| | Communication Equipment | - | | | | | | | PD_PLANT |
| | Miscellaneous Equipment | 11,020 | | | | | | | PD_PLANT |
| | Other Intangible Property | - | | | | | | | PD_PLANT |
| | Plant Leased to Others | - | | | | | | | PD_PLANT |
| | Sub-total | 152,042 | | | | | | | |
| | TOTAL DEPRECIATION EXPENSE | 2,654,050 | | | | | | | |
| | TOTAL EXPENSES | 16,256,572 | | | | | | | |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis - Inputs

Account Factor Choice
Test Period at Proposed Revenues

| No. | Account Description | Amount | Function | Classifier | DEM | COM | CUS | REV | Internal |
|-------------------------------|--|-------------------|--------------|------------|-----|-----|--------|-----|----------|
| Interest on Customer Deposits | | | | | | | | | |
| | Interest on Customer Deposits | 74,347 | F_DISTR | CUS | | | CUSDEP | | |
| | Sub-total | 74,347 | | | | | | | |
| | TOTAL INTEREST ON CUSTOMER DEPOSITS | 74,347 | | | | | | | |
| TAXES (other than Income) | | | | | | | | | |
| | Taxes (other than Income) | | | | | | | | |
| | Payroll | 511,237 | | | | | | | LABOR |
| | Property | 1,359,722 | | | | | | | PD_PLANT |
| | Revenue Related | 157,057 | | | | | | | BASE |
| | Other Taxes | 26,092 | | | | | | | BASE |
| | Sub-total | 2,054,108 | | | | | | | |
| | TOTAL TAXES OTHER THAN INCOME | 2,054,108 | | | | | | | |
| Income Taxes | | | | | | | | | |
| | Income Taxes | 3,257,426 | | | | | | | BASE |
| | Sub-total | 3,257,426 | | | | | | | |
| | TOTAL INCOME TAXES | 3,257,426 | | | | | | | |
| REVENUE | | | | | | | | | |
| | Base Revenue | 22,223,119 | REV_BASE | | | | | | |
| | Other Revenue | 455,585 | REV_OTHER | | | | | | |
| | Unbilled | 3,518 | REV_UNBILLED | | | | | | |
| | NGV Revenue | 2,606 | REV_BASE | | | | | | |
| | Rent from Gas Property | 21,600 | REV_RENT | | | | | | |
| | Margin Sharing | 186,628 | REV_THRU | | | | | | |
| | Revenue Related Taxes | 72,846 | REV_THRU | | | | | | |
| | - | - | | | | | | | |
| | - | - | | | | | | | |
| | - | - | | | | | | | |
| | - | - | | | | | | | |
| | TOTAL REVENUE | 22,965,902 | | | | | | | |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Functionalization

| Test Period at Proposed Revenues | | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | |
|----------------------------------|--------------------------------|-------------|------------|------------|--------------|----------------|-------------|--------------|--------------|-----------------|-------------|-------------|-------------|
| No. | Account Description | Amount | F_PRODU_DD | F_DISTR_DD | F_DISTR_PAVG | F_PRODU_SSALES | F_PRODU_CDD | F_DISTR_THRU | F_DISTR_CUST | F_DISTR_SERVICE | F_DISTR_MET | F_DISTR_REG | F_DISTR_MNR |
| Plant-in Service | | | | | | | | | | | | | |
| Intangible Plant | | | | | | | | | | | | | |
| | Organization Expense | 6,038 | 235 | 1,321 | 62 | - | - | - | 1,787 | 1,610 | 832 | 105 | 85 |
| | Franchise and Consent | 248 | 10 | 54 | 3 | - | - | - | 73 | 66 | 34 | 4 | 3 |
| | Misc. Intangible Plant | 3,000 | 117 | 656 | 31 | - | - | - | 888 | 800 | 413 | 52 | 42 |
| | ~ | - | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 9,286 | 362 | 2,032 | 95 | - | - | - | 2,749 | 2,476 | 1,280 | 162 | 131 |
| Production Plant | | | | | | | | | | | | | |
| | Land and Land Rights | 1,236,589 | 1,236,589 | - | - | - | - | - | - | - | - | - | - |
| | Depreciable Land Rights | - | - | - | - | - | - | - | - | - | - | - | - |
| | Structures and Improvements | 224,540 | 224,540 | - | - | - | - | - | - | - | - | - | - |
| | Liquid Petroleum Gas Equipment | 3,346,977 | 3,346,977 | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 4,808,105 | 4,808,105 | - | - | - | - | - | - | - | - | - | - |
| Distribution Plant | | | | | | | | | | | | | |
| | Mains | 63,275,399 | - | 26,892,045 | - | - | - | - | 36,383,355 | - | - | - | - |
| | M & R Stations - General | 209,392 | - | - | 209,392 | - | - | - | - | - | - | - | - |
| | M & R Stations - City Gate | 1,042,889 | - | - | 1,042,889 | - | - | - | - | - | - | - | - |
| | Services | 32,773,250 | - | - | - | - | - | - | - | 32,773,250 | - | - | - |
| | Meters | 11,037,872 | - | - | - | - | - | - | - | - | 11,037,872 | - | - |
| | Meter Installations | 5,901,032 | - | - | - | - | - | - | - | - | 5,901,032 | - | - |
| | Regulating Equipment | 2,143,325 | - | - | - | - | - | - | - | - | - | 2,143,325 | - |
| | M & R Stations - Industrial | 1,727,660 | - | - | - | - | - | - | - | - | - | - | 1,727,660 |
| | Other Equipment | 363,074 | - | 82,667 | 3,850 | - | - | - | 111,843 | 100,745 | 52,070 | 6,589 | 5,311 |
| | Sub-total | 118,473,894 | - | 26,974,711 | 1,256,130 | - | - | - | 36,495,198 | 32,873,996 | 16,990,975 | 2,149,913 | 1,732,971 |
| General Plant | | | | | | | | | | | | | |
| | Structures and Improvements | 287,023 | 11,194 | 62,802 | 2,925 | - | - | - | 84,967 | 76,537 | 39,558 | 5,005 | 4,035 |
| | Office Equipment | 1,052,106 | 41,033 | 230,206 | 10,720 | - | - | - | 311,455 | 280,551 | 145,003 | 18,348 | 14,789 |
| | Vax System Equipment | - | - | - | - | - | - | - | - | - | - | - | - |
| | Transportation Equipment | 2,040,017 | 79,562 | 446,366 | 20,786 | - | - | - | 603,907 | 543,984 | 281,159 | 35,576 | 28,676 |
| | Tools and Work Equipment | 434,368 | 16,941 | 95,042 | 4,426 | - | - | - | 128,586 | 115,827 | 59,865 | 7,575 | 6,106 |
| | Laboratory Equipment | - | - | - | - | - | - | - | - | - | - | - | - |
| | Power Operated Equipment | 674,971 | 26,324 | 147,687 | 6,877 | - | - | - | 199,812 | 179,986 | 93,026 | 11,771 | 9,488 |
| | Communication Equipment | - | - | - | - | - | - | - | - | - | - | - | - |
| | Miscellaneous Equipment | 248,188 | 9,680 | 54,305 | 2,529 | - | - | - | 73,471 | 66,181 | 34,206 | 4,328 | 3,489 |
| | Other Intangible Property | - | - | - | - | - | - | - | - | - | - | - | - |
| | Plant Leased to Others | - | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 4,736,673 | 184,734 | 1,036,407 | 48,262 | - | - | - | 1,402,198 | 1,263,067 | 652,818 | 82,603 | 66,583 |
| TOTAL PLANT-IN-SERVICE | | 128,027,958 | 4,993,202 | 28,013,151 | 1,304,487 | - | - | - | 37,900,145 | 34,139,538 | 17,645,072 | 2,232,678 | 1,799,685 |

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| | | | | | | | | | | |
|-----------------------------|--------------------|---|---|---|---|---|---|---|---|---|
| Mains | 63,275,399 | - | - | - | - | - | - | - | - | - |
| M & R Stations - General | 209,392 | - | - | - | - | - | - | - | - | - |
| M & R Stations - City Gate | 1,042,889 | - | - | - | - | - | - | - | - | - |
| Services | 32,773,250 | - | - | - | - | - | - | - | - | - |
| Meters | 11,037,872 | - | - | - | - | - | - | - | - | - |
| Meter Installations | 5,901,032 | - | - | - | - | - | - | - | - | - |
| Regulating Equipment | 2,143,325 | - | - | - | - | - | - | - | - | - |
| M & R Stations - Industrial | 1,727,660 | - | - | - | - | - | - | - | - | - |
| Other Equipment | 363,074 | - | - | - | - | - | - | - | - | - |
| Sub-total | 118,473,894 | - | - | - | - | - | - | - | - | - |

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Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Functionalization

Test Period at Proposed Revenues

No. Account Description Amount 4 F_PRODU_DD 5 F_DISTR_DD 6 F_DISTR_PAVG 7 F_PRODU_SSALES 8 F_PRODU_CDD 9 F_DISTR_THRU 10 F_DISTR_CUST 11 F_DISTR_SERVICE 12 F_DISTR_MET 13 F_DISTR_REG 14 F_DISTR_MNR

Accumulated Reserve for Depreciation

Intangible Plant

| | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Organization Expense | - | - | - | - | - | - | - | - | - | - | - | - |
| Franchise and Consent | - | - | - | - | - | - | - | - | - | - | - | - |
| Misc. Intangible Plant | - | - | - | - | - | - | - | - | - | - | - | - |
| ~ | - | - | - | - | - | - | - | - | - | - | - | - |
| Sub-total | - | - | - | - | - | - | - | - | - | - | - | - |

Production Plant

| | | | | | | | | | | | | |
|--------------------------------|--------------------|--------------------|---|---|---|---|---|---|---|---|---|---|
| Land and Land Rights | (101,996) | (101,996) | - | - | - | - | - | - | - | - | - | - |
| Depreciable Land Rights | - | - | - | - | - | - | - | - | - | - | - | - |
| Structures and Improvements | (143,206) | (143,206) | - | - | - | - | - | - | - | - | - | - |
| Liquid Petroleum Gas Equipment | (1,757,693) | (1,757,693) | - | - | - | - | - | - | - | - | - | - |
| Sub-total | (2,002,895) | (2,002,895) | - | - | - | - | - | - | - | - | - | - |

Distribution Plant

| | | | | | | | | | | | | |
|-----------------------------|---------------------|---|--------------------|------------------|---|---|--------------------|---------------------|--------------------|------------------|------------------|-----------|
| Mains | (15,193,054) | - | (6,457,048) | - | - | - | (8,736,006) | - | - | - | - | - |
| M & R Stations - General | (50,311) | - | - | (50,311) | - | - | - | - | - | - | - | - |
| M & R Stations - City Gate | (482,002) | - | - | (482,002) | - | - | - | - | - | - | - | - |
| Services | (11,632,528) | - | - | - | - | - | - | (11,632,528) | - | - | - | - |
| Meters | (301,233) | - | - | - | - | - | - | - | (301,233) | - | - | - |
| Meter Installations | (1,869,000) | - | - | - | - | - | - | - | (1,869,000) | - | - | - |
| Regulating Equipment | (573,834) | - | - | - | - | - | - | - | - | (573,834) | - | - |
| M & R Stations - Industrial | (649,227) | - | - | - | - | - | - | - | - | - | - | (649,227) |
| Other Equipment | (54,182) | - | (12,336) | (574) | - | - | (16,690) | (15,034) | (7,771) | (983) | (793) | - |
| Sub-total | (30,805,372) | - | (6,469,384) | (532,888) | - | - | (8,752,696) | (11,647,562) | (2,178,004) | (574,817) | (650,020) | - |

General Plant

| | | | | | | | | | | | | |
|-----------------------------|--------------------|-----------------|------------------|-----------------|---|---|------------------|------------------|------------------|-----------------|-----------------|---|
| Structures and Improvements | (285,944) | (11,152) | (62,566) | (2,914) | - | - | (84,648) | (76,249) | (39,409) | (4,987) | (4,020) | - |
| Office Equipment | 7,441 | 290 | 1,628 | 76 | - | - | 2,203 | 1,984 | 1,025 | 130 | 105 | - |
| Vax System Equipment | - | - | - | - | - | - | - | - | - | - | - | - |
| Transportation Equipment | (1,140,185) | (44,468) | (249,478) | (11,617) | - | - | (337,529) | (304,038) | (157,143) | (19,884) | (16,028) | - |
| Tools and Work Equipment | (36,706) | (1,432) | (8,031) | (374) | - | - | (10,866) | (9,788) | (5,059) | (640) | (516) | - |
| Laboratory Equipment | - | - | - | - | - | - | - | - | - | - | - | - |
| Power Operated Equipment | (371,658) | (14,495) | (81,321) | (3,787) | - | - | (110,022) | (99,105) | (51,223) | (6,481) | (5,224) | - |
| Communication Equipment | 57,843 | 2,256 | 12,656 | 589 | - | - | 17,123 | 15,424 | 7,972 | 1,009 | 813 | - |
| Miscellaneous Equipment | (170,666) | (6,656) | (37,343) | (1,739) | - | - | (50,522) | (45,509) | (23,522) | (2,976) | (2,399) | - |
| Other Intangible Property | - | - | - | - | - | - | - | - | - | - | - | - |
| Plant Leased to Others | - | - | - | - | - | - | - | - | - | - | - | - |
| Sub-total | (1,939,874) | (75,657) | (424,454) | (19,766) | - | - | (574,261) | (517,281) | (267,357) | (33,829) | (27,269) | - |

| | | | | | | | | | | | | |
|----------------------------|--------|-----|-------|-----|---|---|-------|-------|-------|-----|-----|---|
| Retirement Work in Process | 10,942 | 427 | 2,394 | 111 | - | - | 3,239 | 2,918 | 1,508 | 191 | 154 | - |
|----------------------------|--------|-----|-------|-----|---|---|-------|-------|-------|-----|-----|---|

| | | | | | | | | | | | | |
|-----------------------------------|---------------------|--------------------|--------------------|------------------|---|---|--------------------|---------------------|--------------------|------------------|------------------|---|
| TOTAL DEPRECIATION ACCRUAL | (34,737,200) | (2,078,125) | (6,891,444) | (552,542) | - | - | (9,323,719) | (12,161,926) | (2,443,853) | (608,456) | (677,135) | - |
|-----------------------------------|---------------------|--------------------|--------------------|------------------|---|---|--------------------|---------------------|--------------------|------------------|------------------|---|

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Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Functionalization

Test Period at Proposed Revenues

| No. | Account Description | Amount | 4 F_PRODU_DD | 5 F_DISTR_DD | 6 F_DISTR_PAVG | 7 F_PRODU_SSALES | 8 F_PRODU_CDD | 9 F_DISTR_THRU | 10 F_DISTR_CUST | 11 F_DISTR_SERVICE | 12 F_DISTR_MET | 13 F_DISTR_REG | 14 F_DISTR_MNR |
|-----|---------------------|--------|-----------------|-----------------|-------------------|---------------------|------------------|-------------------|--------------------|-----------------------|-------------------|-------------------|-------------------|
|-----|---------------------|--------|-----------------|-----------------|-------------------|---------------------|------------------|-------------------|--------------------|-----------------------|-------------------|-------------------|-------------------|

Rate Base Adjustments and Working Capital

Accumulated Deferred Income Tax

| | | | | | | | | | | | | |
|--------------------------------|---------------------|--------------------|--------------------|------------------|----------|--------------|---------------|--------------------|--------------------|--------------------|------------------|------------------|
| Accelerated Depreciation | (23,689,863) | (1,417,227) | (4,699,785) | (376,819) | - | - | - | (6,358,533) | (8,294,116) | (1,666,644) | (414,951) | (461,788) |
| Bad Debts | 47,610 | - | - | - | - | - | - | - | - | - | - | - |
| Capital Interest & Overheads | 176,551 | - | 40,198 | 1,872 | - | - | - | 54,386 | 48,989 | 25,320 | 3,204 | 2,582 |
| Pension | 196,895 | 436 | 8,918 | 2,764 | - | 499 | 10,934 | 12,066 | 17,248 | 19,347 | 2,448 | 2,039 |
| Incentive Compensation | 207,781 | 460 | 9,411 | 2,917 | - | 527 | 11,539 | 12,733 | 18,201 | 20,417 | 2,583 | 2,151 |
| Other Post Retirement Benefits | 210,778 | 467 | 9,547 | 2,959 | - | 534 | 11,705 | 12,916 | 18,464 | 20,711 | 2,621 | 2,182 |
| Insurance Reserves | (60,896) | - | (13,865) | (646) | - | - | - | (18,759) | (16,897) | (8,733) | (1,105) | (891) |
| Self-Insurance | 214,028 | 474 | 9,694 | 3,004 | - | 542 | 11,886 | 13,116 | 18,749 | 21,031 | 2,661 | 2,216 |
| Regulatory Asset | 59,148 | 822 | 2,964 | 779 | - | 315 | 648 | 4,011 | 5,448 | 5,650 | 715 | 1,035 |
| Real Property and Repairs | (300,581) | - | (68,438) | (3,187) | - | - | - | (92,592) | (83,405) | (43,108) | (5,455) | (4,397) |
| Sub-total | (22,938,550) | (1,414,569) | (4,701,355) | (366,357) | - | 2,417 | 46,711 | (6,360,657) | (8,267,319) | (1,606,009) | (407,279) | (454,870) |

Other Rate Base Adjustments

| | | | | | | | | | | | | |
|----------------------|----------------|---------------|----------------|----------------|------------------|----------------|-----------------|----------------|---------------|----------------|--------------|--------------|
| Customer Deposits | (1,698,560) | - | - | - | - | - | - | - | - | - | - | - |
| Customer Advances | (27,692) | - | - | - | - | - | - | - | - | - | - | - |
| Operating Reserves | (1,547,011) | (3,426) | (70,070) | (21,715) | - | (3,920) | (85,910) | (94,801) | (135,516) | (152,011) | (19,234) | (16,017) |
| Nat. Gas in Storage | 1,538,611 | - | - | - | 1,538,611 | - | - | - | - | - | - | - |
| Propane in Storage | 264,685 | - | - | - | - | 264,685 | - | - | - | - | - | - |
| Plant M&S | 365,301 | 14,247 | 79,930 | 3,722 | - | - | - | 108,140 | 97,410 | 50,347 | 6,370 | 5,135 |
| Cash Working Capital | 1,028,566 | 14,294 | 51,549 | 13,551 | - | 5,479 | 11,266 | 69,743 | 94,746 | 98,257 | 12,433 | 18,000 |
| CWIP | 662,641 | - | 281,623 | - | - | - | - | 381,019 | - | - | - | - |
| Sub-total | 586,541 | 25,115 | 343,031 | (4,442) | 1,538,611 | 266,244 | (74,644) | 464,101 | 56,641 | (3,407) | (431) | 7,118 |

TOTAL OTHER RATE BASE

| | | | | | | | | | | | | |
|--|--------------|-------------|-------------|-----------|-----------|---------|----------|-------------|-------------|-------------|-----------|-----------|
| | (22,352,008) | (1,389,453) | (4,358,324) | (370,799) | 1,538,611 | 268,661 | (27,933) | (5,896,556) | (8,210,678) | (1,609,416) | (407,710) | (447,752) |
|--|--------------|-------------|-------------|-----------|-----------|---------|----------|-------------|-------------|-------------|-----------|-----------|

| | | | | | | | | | | | | |
|------------------------|-------------------|------------------|-------------------|----------------|------------------|----------------|-----------------|-------------------|-------------------|-------------------|------------------|----------------|
| TOTAL RATE BASE | 70,938,750 | 1,525,623 | 16,763,382 | 381,146 | 1,538,611 | 268,661 | (27,933) | 22,679,870 | 13,766,935 | 13,591,803 | 1,216,512 | 674,798 |
|------------------------|-------------------|------------------|-------------------|----------------|------------------|----------------|-----------------|-------------------|-------------------|-------------------|------------------|----------------|

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

| Functionalization | | | | | | | | | | | | | |
|---|--------------------------------|--------------|-----------------|----------------|----------------|------------------|--------------|--------------|-----------------|----------------|----------------|--------------|----------------|
| Test Period at Proposed Revenues | | | | | | | | | | | | | |
| No. | Account Description | Amount | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| | | | F_DISTR_BADDEBT | F_CBILL_CUSDEP | F_CBILL_CUSADV | F_DISTR_CINSTALL | F_CBILL_CMET | F_CBILL_CREC | F_CBILL_BADDEBT | F_CBILL_SCUSTS | F_CSERV_SCUSTS | F_CSERV_CUST | F_DISTR_CUSDEP |
| Rate Base Adjustments and Working Capital | | | | | | | | | | | | | |
| Accumulated Deferred Income Tax: | | | | | | | | | | | | | |
| | Accelerated Depreciation | (23,689,863) | - | - | - | - | - | - | - | - | - | - | - |
| | Bad Debts | 47,610 | 47,610 | - | - | - | - | - | - | - | - | - | - |
| | Capital Interest & Overheads | 176,551 | - | - | - | - | - | - | - | - | - | - | - |
| | Pension | 196,895 | - | - | - | 7,914 | 13,302 | 62,018 | 755 | 344 | 35,865 | - | - |
| | Incentive Compensation | 207,781 | - | - | - | 8,351 | 14,037 | 65,447 | 796 | 363 | 37,848 | - | - |
| | Other Post Retirement Benefits | 210,778 | - | - | - | 8,472 | 14,239 | 66,391 | 808 | 368 | 38,394 | - | - |
| | Insurance Reserves | (60,896) | - | - | - | - | - | - | - | - | - | - | - |
| | Self-Insurance | 214,028 | - | - | - | 8,602 | 14,459 | 67,415 | 820 | 374 | 38,986 | - | - |
| | Regulatory Asset | 59,148 | - | - | - | 1,163 | 3,211 | 20,101 | 1,675 | 763 | 9,847 | - | - |
| | Real Property and Repairs | (300,581) | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | (22,938,550) | 47,610 | - | - | 34,502 | 59,248 | 281,371 | 4,853 | 2,212 | 160,941 | - | - |
| Other Rate Base Adjustments | | | | | | | | | | | | | |
| | Customer Deposits | (1,698,560) | - | (1,698,560) | - | - | - | - | - | - | - | - | - |
| | Customer Advances | (27,692) | - | - | (27,692) | - | - | - | - | - | - | - | - |
| | Operating Reserves | (1,547,011) | - | - | - | (62,177) | (104,511) | (487,278) | (5,929) | (2,702) | (281,795) | - | - |
| | Nat. Gas in Storage | 1,538,611 | - | - | - | - | - | - | - | - | - | - | - |
| | Propane in Storage | 264,685 | - | - | - | - | - | - | - | - | - | - | - |
| | Plant M&S | 365,301 | - | - | - | - | - | - | - | - | - | - | - |
| | Cash Working Capital | 1,028,566 | - | - | - | 20,229 | 55,844 | 349,546 | 29,121 | 13,271 | 171,236 | - | - |
| | CWIP | 662,641 | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 586,541 | - | (1,698,560) | (27,692) | (41,948) | (48,667) | (137,732) | 23,193 | 10,570 | (110,559) | - | - |
| TOTAL OTHER RATE BASE | | | | | | | | | | | | | |
| | | (22,352,008) | 47,610 | (1,698,560) | (27,692) | (7,446) | 10,581 | 143,639 | 28,046 | 12,781 | 50,382 | - | - |
| TOTAL RATE BASE | | | | | | | | | | | | | |
| | | 70,938,750 | 47,610 | (1,698,560) | (27,692) | (7,446) | 10,581 | 143,639 | 28,046 | 12,781 | 50,382 | - | - |

Test Period at Proposed Revenues

[illegible]

Test Period at Proposed Revenues

| Test Period at Proposed Revenues | | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | |
|----------------------------------|----------------------------------|--------|-----------------|----------------|----------------|------------------|--------------|--------------|-----------------|----------------|----------------|--------------|----------------|
| No. | Account Description | Amount | F_DISTR_BADDEBT | F_CBILL_CUSDEP | F_CBILL_CUSADV | F_DISTR_CINSTALL | F_CBILL_CMET | F_CBILL_CREC | F_CBILL_BADDEBT | F_CBILL_SCUSTS | F_CSERV_SCUSTS | F_CSERV_CUST | F_DISTR_CUSDEP |
| EXPENSES | | | | | | | | | | | | | |
| O & M Expenses | | | | | | | | | | | | | |
| Production Ops | | | | | | | | | | | | | |
| | Liquefied Petroleum Gas Expenses | 29,966 | - | - | - | - | - | - | - | - | - | - | - |
| | Liquefied Petroleum Gas | - | - | - | - | - | - | - | - | - | - | - | - |
| | Operation Labor & Expense | 30,718 | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 60,684 | - | - | - | - | - | - | - | - | - | - | - |
| Purchased Gas Expense | | | | | | | | | | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | | | | | | | | | | |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Functionalization

Test Period at Proposed Revenues

| No. | Account Description | Amount | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---------------------------------|--|------------------|--------------|----------------|---------------|----------------|--------------|----------------|----------------|-----------------|----------------|---------------|---------------|
| | | | F_PRODU_DD | F_DISTR_DD | F_DISTR_PAVG | F_PRODU_SSALES | F_PRODU_CDD | F_DISTR_THRU | F_DISTR_CUST | F_DISTR_SERVICE | F_DISTR_MET | F_DISTR_REG | F_DISTR_MNR |
| Labor Expense | | | | | | | | | | | | | |
| Production Ops | | | | | | | | | | | | | |
| | Liquefied Petroleum Gas Expenses | 9,377 | - | - | - | - | - | 9,377 | - | - | - | - | - |
| | Liquefied Petroleum Gas | - | - | - | - | - | - | - | - | - | - | - | - |
| | Operation Labor & Expense | - | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 9,377 | - | - | - | - | - | 9,377 | - | - | - | - | - |
| Distribution Ops | | | | | | | | | | | | | |
| | Operation Supervision & Engineering | 407,188 | - | 43,397 | 13,449 | - | - | 53,208 | 58,714 | 83,931 | 94,147 | 11,913 | 9,920 |
| | Distribution Load Dispatching | 152,294 | - | - | - | - | - | 152,294 | - | - | - | - | - |
| | ~ | - | - | - | - | - | - | - | - | - | - | - | - |
| | Mains & Services Expenses | 317,881 | - | 89,001 | - | - | - | - | 120,414 | 108,466 | - | - | - |
| | M & R Station Expense - General | 778 | - | - | 778 | - | - | - | - | - | - | - | - |
| | M & R Station Expense - Industrial | 10,600 | - | - | - | - | - | - | - | - | - | - | 10,600 |
| | M & R Station Expenses - City Gate | 5,612 | - | - | 5,612 | - | - | - | - | - | - | - | - |
| | Meter and House Regulator Expense | 283,521 | - | - | - | - | - | - | - | - | 251,676 | 31,845 | - |
| | Customer Installation Expenses | 110,223 | - | - | - | - | - | - | - | - | - | - | - |
| | Other Expenses - Distribution | 153 | - | 35 | 2 | - | - | - | 47 | 42 | 22 | 3 | 2 |
| | Rents - Distribution | - | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 1,288,251 | - | 132,434 | 19,840 | - | - | 205,502 | 179,175 | 192,439 | 345,845 | 43,761 | 20,522 |
| Customer Service Ops | | | | | | | | | | | | | |
| | Supervision - Customer Accounting | 218,064 | - | - | - | - | - | - | - | - | - | - | - |
| | Meter Reading Expenses | 222,802 | - | - | - | - | - | - | - | - | - | - | - |
| | Customer Records & Collection Expenses | 995,377 | - | - | - | - | - | - | - | - | - | - | - |
| | Uncollectible Accounts | - | - | - | - | - | - | - | - | - | - | - | - |
| | Customer Assistance Expenses | - | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 1,436,243 | - | - | - | - | - | - | - | - | - | - | - |
| Sales Ops | | | | | | | | | | | | | |
| | Demonstrating & Selling Expenses | 674,073 | - | - | - | - | - | - | - | - | - | - | - |
| | Advertising Expenses | - | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 674,073 | - | - | - | - | - | - | - | - | - | - | - |
| Distribution Maintenance | | | | | | | | | | | | | |
| | Structures & Improvements | - | - | - | - | - | - | - | - | - | - | - | - |
| | Mains & Services Expenses | 125,645 | - | 35,179 | - | - | - | - | 47,594 | 42,872 | - | - | - |
| | M & R Station Equipment - General | 28,095 | - | - | 28,095 | - | - | - | - | - | - | - | - |
| | M & R Station Equipment - Industrial | 17,790 | - | - | - | - | - | - | - | - | - | - | 17,790 |
| | M & R Station Equipment - City Gate | 4,009 | - | - | 4,009 | - | - | - | - | - | - | - | - |
| | Services | 88,852 | - | - | - | - | - | - | - | 88,852 | - | - | - |
| | Meters & House Regulators | 20,024 | - | - | - | - | - | - | - | - | 17,775 | 2,249 | - |
| | Other Equipment | - | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 284,415 | - | 35,179 | 32,105 | - | - | - | 47,594 | 131,724 | 17,775 | 2,249 | 17,790 |
| Production Maintenance | | | | | | | | | | | | | |
| | Maintenance of Structures & Improvements | - | - | - | - | - | - | - | - | - | - | - | - |
| | Maintenance of Production Equipment | 8,194 | - | 8,194 | - | - | - | - | - | - | - | - | - |
| | Sub-total | 8,194 | - | 8,194 | - | - | - | - | - | - | - | - | - |
| TOTAL LABOR EXPENSE | | | | | | | | | | | | | |
| | | 3,700,554 | 8,194 | 167,612 | 51,945 | - | 9,377 | 205,502 | 226,770 | 324,163 | 363,619 | 46,010 | 38,313 |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

| Functionalization | | | | | | | | | | | | | |
|----------------------------------|--|-----------|-----------------|----------------|----------------|------------------|--------------|--------------|-----------------|----------------|----------------|--------------|----------------|
| Test Period at Proposed Revenues | | | | | | | | | | | | | |
| No. | Account Description | Amount | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| | | | F_DISTR_BADDEBT | F_CBILL_CUSDEP | F_CBILL_CUSADV | F_DISTR_CINSTALL | F_CBILL_CMET | F_CBILL_CREC | F_CBILL_BADDEBT | F_CBILL_SCUSTS | F_CSERV_SCUSTS | F_CSERV_CUST | F_DISTR_CUSDEP |
| Labor Expense | | | | | | | | | | | | | |
| Production Ops | | | | | | | | | | | | | |
| | Liquefied Petroleum Gas Expenses | 9,377 | - | - | - | - | - | - | - | - | - | - | - |
| | Liquefied Petroleum Gas | - | - | - | - | - | - | - | - | - | - | - | - |
| | Operation Labor & Expense | - | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 9,377 | - | - | - | - | - | - | - | - | - | - | - |
| Distribution Ops | | | | | | | | | | | | | |
| | Operation Supervision & Engineering | 407,188 | - | - | - | 38,509 | - | - | - | - | - | - | - |
| | Distribution Load Dispatching | 152,294 | - | - | - | - | - | - | - | - | - | - | - |
| | ~ | - | - | - | - | - | - | - | - | - | - | - | - |
| | Mains & Services Expenses | 317,881 | - | - | - | - | - | - | - | - | - | - | - |
| | M & R Station Expense - General | 778 | - | - | - | - | - | - | - | - | - | - | - |
| | M & R Station Expense - Industrial | 10,600 | - | - | - | - | - | - | - | - | - | - | - |
| | M & R Station Expenses - City Gate | 5,612 | - | - | - | - | - | - | - | - | - | - | - |
| | Meter and House Regulator Expense | 283,521 | - | - | - | - | - | - | - | - | - | - | - |
| | Customer Installation Expenses | 110,223 | - | - | - | 110,223 | - | - | - | - | - | - | - |
| | Other Expenses - Distribution | 153 | - | - | - | - | - | - | - | - | - | - | - |
| | Rents - Distribution | - | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 1,288,251 | - | - | - | 148,733 | - | - | - | - | - | - | - |
| Customer Service Ops | | | | | | | | | | | | | |
| | Supervision - Customer Accounting | 218,064 | - | - | - | - | 27,195 | 170,224 | 14,182 | 6,463 | - | - | - |
| | Meter Reading Expenses | 222,802 | - | - | - | - | 222,802 | - | - | - | - | - | - |
| | Customer Records & Collection Expenses | 995,377 | - | - | - | - | - | 995,377 | - | - | - | - | - |
| | Uncollectible Accounts | - | - | - | - | - | - | - | - | - | - | - | - |
| | Customer Assistance Expenses | - | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 1,436,243 | - | - | - | - | 249,997 | 1,165,601 | 14,182 | 6,463 | - | - | - |
| Sales Ops | | | | | | | | | | | | | |
| | Demonstrating & Selling Expenses | 674,073 | - | - | - | - | - | - | - | - | 674,073 | - | - |
| | Advertising Expenses | - | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 674,073 | - | - | - | - | - | - | - | - | 674,073 | - | - |
| Distribution Maintenance | | | | | | | | | | | | | |
| | Structures & Improvements | - | - | - | - | - | - | - | - | - | - | - | - |
| | Mains & Services Expenses | 125,645 | - | - | - | - | - | - | - | - | - | - | - |
| | M & R Station Equipment - General | 28,095 | - | - | - | - | - | - | - | - | - | - | - |
| | M & R Station Equipment - Industrial | 17,790 | - | - | - | - | - | - | - | - | - | - | - |
| | M & R Station Equipment - City Gate | 4,009 | - | - | - | - | - | - | - | - | - | - | - |
| | Services | 88,852 | - | - | - | - | - | - | - | - | - | - | - |
| | Meters & House Regulators | 20,024 | - | - | - | - | - | - | - | - | - | - | - |
| | Other Equipment | - | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 284,415 | - | - | - | - | - | - | - | - | - | - | - |
| Production Maintenance | | | | | | | | | | | | | |
| | Maintenance of Structures & Improvements | - | - | - | - | - | - | - | - | - | - | - | - |
| | Maintenance of Production Equipment | 8,194 | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 8,194 | - | - | - | - | - | - | - | - | - | - | - |
| TOTAL LABOR EXPENSE | | 3,700,554 | - | - | - | 148,733 | 249,997 | 1,165,601 | 14,182 | 6,463 | 674,073 | - | - |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Functionalization

| Test Period at Proposed Revenues | | | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|----------------------------------|---------------------|--------|------------|------------|--------------|----------------|-------------|--------------|--------------|-----------------|-------------|-------------|-------------|
| No. | Account Description | Amount | F PRODU DD | F DISTR DD | F DISTR PAVG | F PRODU SSALES | F PRODU CDD | F DISTR THRU | F DISTR CUST | F DISTR SERVICE | F DISTR MET | F DISTR REG | F DISTR MNR |

A & G Expenses

| | | | | | | | | | | | | | |
|---|------------------|----------------|----------------|---------------|--------------|---------------|----------------|------------------|------------------|----------------|----------------|---------------|--|
| Administrative & General Ops | | | | | | | | | | | | | |
| Administrative & General Salaries | 3,341,431 | 7,399 | 151,346 | 46,904 | - | 8,467 | 185,559 | 204,763 | 292,704 | 328,332 | 41,545 | 34,595 | |
| Office Supplies & Expenses | 852,815 | 33,261 | 186,600 | 8,689 | - | - | - | 252,459 | 227,409 | 117,537 | 14,872 | 11,988 | |
| Outside Services | 1,032,630 | 40,273 | 225,945 | 10,522 | - | - | - | 305,690 | 275,358 | 142,319 | 18,008 | 14,516 | |
| Property Insurance | 25,719 | 1,003 | 5,627 | 262 | - | - | - | 7,613 | 6,858 | 3,545 | 449 | 362 | |
| Injuries & Damages | 335,053 | 13,067 | 73,311 | 3,414 | - | - | - | 99,186 | 89,344 | 46,178 | 5,843 | 4,710 | |
| Employee Pensions & Benefits | 1,409,073 | 3,120 | 63,822 | 19,779 | - | 3,571 | 78,250 | 86,348 | 123,433 | 138,457 | 17,519 | 14,589 | |
| Regulatory Commission Expenses | 247,134 | 5,315 | 58,400 | 1,328 | 5,360 | 936 | (97) | 79,011 | 47,961 | 47,351 | 4,238 | 2,351 | |
| General Advertising - A & G | 21,979 | 857 | 4,809 | 224 | - | - | - | 6,507 | 5,861 | 3,029 | 383 | 309 | |
| Misc. General Expenses | 259,469 | 10,120 | 56,773 | 2,644 | - | - | - | 76,811 | 69,189 | 35,761 | 4,525 | 3,647 | |
| Rents - A & G | 331,663 | 734 | 15,022 | 4,656 | - | 840 | 18,418 | 20,324 | 29,053 | 32,590 | 4,124 | 3,434 | |
| Sub-total | 7,856,967 | 115,150 | 841,656 | 98,421 | 5,360 | 13,814 | 282,130 | 1,138,711 | 1,167,170 | 895,096 | 111,506 | 90,499 | |
| Administrative & General Maintenance | | | | | | | | | | | | | |
| General Plant | 119,858 | 4,675 | 26,226 | 1,221 | - | - | - | 35,482 | 31,961 | 16,519 | 2,090 | 1,685 | |
| Sub-total | 119,858 | 4,675 | 26,226 | 1,221 | - | - | - | 35,482 | 31,961 | 16,519 | 2,090 | 1,685 | |
| TOTAL A&G EXPENSES | 7,976,825 | 119,824 | 867,882 | 99,642 | 5,360 | 13,814 | 282,130 | 1,174,193 | 1,199,131 | 911,615 | 113,596 | 92,184 | |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Functionalization

| Test Period at Proposed Revenues | | | | | | | | | | | | | |
|--------------------------------------|---------------------|--------|-----------------------|----------------------|----------------------|------------------------|--------------------|--------------------|-----------------------|----------------------|----------------------|--------------------|----------------------|
| No. | Account Description | Amount | 15 F_DISTR_BADDEBT | 16 F_CBILL_CUSDEP | 17 F_CBILL_CUSADV | 18 F_DISTR_CINSTALL | 19 F_CBILL_CMET | 20 F_CBILL_CREC | 21 F_CBILL_BADDEBT | 22 F_CBILL_SCUSTS | 23 F_CSERV_SCUSTS | 24 F_CSERV_CUST | 25 F_DISTR_CUSDEP |
| A & G Expenses | | | | | | | | | | | | | |
| Administrative & General Ops | | | | | | | | | | | | | |
| Administrative & General Salaries | 3,341,431 | - | - | - | - | 134,299 | 225,736 | 1,052,485 | 12,805 | 5,836 | 608,657 | - | - |
| Office Supplies & Expenses | 852,815 | - | - | - | - | - | - | - | - | - | - | - | - |
| Outside Services | 1,032,630 | - | - | - | - | - | - | - | - | - | - | - | - |
| Property Insurance | 25,719 | - | - | - | - | - | - | - | - | - | - | - | - |
| Injuries & Damages | 335,053 | - | - | - | - | - | - | - | - | - | - | - | - |
| Employee Pensions & Benefits | 1,409,073 | - | - | - | - | 56,633 | 95,192 | 443,830 | 5,400 | 2,461 | 256,669 | - | - |
| Regulatory Commission Expenses | 247,134 | 166 | (5,917) | (96) | (26) | 37 | 500 | 98 | 45 | 176 | - | - | - |
| General Advertising - A & G | 21,979 | - | - | - | - | - | - | - | - | - | - | - | - |
| Misc. General Expenses | 259,469 | - | - | - | - | - | - | - | - | - | - | - | - |
| Rents - A & G | 331,663 | - | - | - | - | 13,330 | 22,406 | 104,467 | 1,271 | 579 | 60,414 | - | - |
| Sub-total | 7,856,967 | 166 | (5,917) | (96) | (204,237 | 343,371 | 1,601,283 | 19,574 | 8,920 | 925,916 | - | - | - |
| Administrative & General Maintenance | | | | | | | | | | | | | |
| General Plant | 119,858 | - | - | - | - | - | - | - | - | - | - | - | - |
| Sub-total | 119,858 | - | - | - | - | - | - | - | - | - | - | - | - |
| TOTAL A&G EXPENSES | | | | | | | | | | | | | |
| | 7,976,825 | 166 | (5,917) | (96) | 204,237 | 343,371 | 1,601,283 | 19,574 | 8,920 | 925,916 | - | - | - |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Functionalization

Test Period at Proposed Revenues

| No. | Account Description | Amount | 4 F_PRODU_DD | 5 F_DISTR_DD | 6 F_DISTR_PAVG | 7 F_PRODU_SSALES | 8 F_PRODU_CDD | 9 F_DISTR_THRU | 10 F_DISTR_CUST | 11 F_DISTR_SERVICE | 12 F_DISTR_MET | 13 F_DISTR_REG | 14 F_DISTR_MNR |
|-----|---------------------|--------|-----------------|-----------------|-------------------|---------------------|------------------|-------------------|--------------------|-----------------------|-------------------|-------------------|-------------------|
|-----|---------------------|--------|-----------------|-----------------|-------------------|---------------------|------------------|-------------------|--------------------|-----------------------|-------------------|-------------------|-------------------|

Depreciation & Amortization Expense

Intangible Plant

| | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Organization Expense | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Franchise and Consent | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Misc. Intangible Plant | - | - | - | - | - | - | - | - | - | - | - | - | - |
| UtiliCIS | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Sub-total | - | - | - | - | - | - | - | - | - | - | - | - | - |

Production Plant

| | | | | | | | | | | | | | |
|--------------------------------|----------------|----------------|---|---|---|---|---|---|---|---|---|---|---|
| Land and Land Rights | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Depreciable Land Rights | 14,812 | 14,812 | - | - | - | - | - | - | - | - | - | - | - |
| Structures and Improvements | 4,090 | 4,090 | - | - | - | - | - | - | - | - | - | - | - |
| Liquid Petroleum Gas Equipment | 110,841 | 110,841 | - | - | - | - | - | - | - | - | - | - | - |
| Sub-total | 129,743 | 129,743 | - | - | - | - | - | - | - | - | - | - | - |

Distribution Plant

| | | | | | | | | | | | | | |
|-----------------------------|------------------|---|----------------|---------------|---|---|---|----------------|----------------|----------------|---------------|---------------|--------|
| Mains | 1,076,974 | - | 457,714 | - | - | - | - | 619,260 | - | - | - | - | - |
| M & R Stations - General | 7,910 | - | - | 7,910 | - | - | - | - | - | - | - | - | - |
| M & R Stations - City Gate | 39,734 | - | - | 39,734 | - | - | - | - | - | - | - | - | - |
| Services | 712,438 | - | - | - | - | - | - | - | 712,438 | - | - | - | - |
| Meters | 268,755 | - | - | - | - | - | - | - | - | 268,755 | - | - | - |
| Meter Installations | 138,926 | - | - | - | - | - | - | - | - | 138,926 | - | - | - |
| Regulating Equipment | 38,489 | - | - | - | - | - | - | - | - | - | 38,489 | - | - |
| M & R Stations - Industrial | 73,721 | - | - | - | - | - | - | - | - | - | - | - | 73,721 |
| Other Equipment | 15,319 | - | 3,488 | 162 | - | - | - | 4,719 | 4,251 | 2,197 | 278 | 224 | - |
| Sub-total | 2,372,266 | - | 461,202 | 47,807 | - | - | - | 623,979 | 716,689 | 409,877 | 38,767 | 73,945 | - |

General Plant

| | | | | | | | | | | | | | |
|-----------------------------|----------------|--------------|---------------|--------------|---|---|---|---------------|---------------|---------------|--------------|--------------|---|
| Structures and Improvements | 57,405 | 2,239 | 12,560 | 585 | - | - | - | 16,993 | 15,307 | 7,912 | 1,001 | 807 | - |
| Office Equipment | 43,182 | 1,684 | 9,448 | 440 | - | - | - | 12,783 | 11,515 | 5,951 | 753 | 607 | - |
| Vax System Equipment | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Transportation Equipment | (15,426) | (602) | (3,375) | (157) | - | - | - | (4,567) | (4,113) | (2,126) | (269) | (217) | - |
| Tools and Work Equipment | 11,165 | 435 | 2,443 | 114 | - | - | - | 3,305 | 2,977 | 1,539 | 195 | 157 | - |
| Laboratory Equipment | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Power Operated Equipment | 44,696 | 1,743 | 9,780 | 455 | - | - | - | 13,231 | 11,919 | 6,160 | 779 | 628 | - |
| Communication Equipment | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Miscellaneous Equipment | 11,020 | 430 | 2,411 | 112 | - | - | - | 3,262 | 2,938 | 1,519 | 192 | 155 | - |
| Other Intangible Property | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Plant Leased to Others | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Sub-total | 152,042 | 5,930 | 33,267 | 1,549 | - | - | - | 45,009 | 40,543 | 20,955 | 2,651 | 2,137 | - |

TOTAL DEPRECIATION EXPENSE

| | | | | | | | | | | | | | |
|----------------------------|------------|---------|-----------|---------|-------|--------|---------|-----------|-----------|-----------|---------|---------|--|
| TOTAL DEPRECIATION EXPENSE | 2,654,050 | 135,672 | 494,469 | 49,356 | - | - | - | 668,988 | 757,232 | 430,832 | 41,419 | 76,082 | |
| TOTAL EXPENSES | 16,256,572 | 333,676 | 1,644,295 | 223,117 | 5,360 | 43,780 | 343,749 | 2,224,635 | 2,474,574 | 1,879,862 | 223,015 | 266,717 | |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Functionalization

| Test Period at Proposed Revenues | | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | |
|-------------------------------------|--------------------------------|------------|-----------------|----------------|----------------|------------------|--------------|--------------|-----------------|----------------|----------------|--------------|----------------|
| No. | Account Description | Amount | F_DISTR_BADDEBT | F_CBILL_CUSDEP | F_CBILL_CUSADV | F_DISTR_CINSTALL | F_CBILL_CMET | F_CBILL_CREC | F_CBILL_BADDEBT | F_CBILL_SCUSTS | F_CSERV_SCUSTS | F_CSERV_CUST | F_DISTR_CUSDEP |
| Depreciation & Amortization Expense | | | | | | | | | | | | | |
| Intangible Plant | | | | | | | | | | | | | |
| | Organization Expense | - | - | - | - | - | - | - | - | - | - | - | - |
| | Franchise and Consent | - | - | - | - | - | - | - | - | - | - | - | - |
| | Misc. Intangible Plant | - | - | - | - | - | - | - | - | - | - | - | - |
| | UtiliCIS | - | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | - | - | - | - | - | - | - | - | - | - | - | - |
| Production Plant | | | | | | | | | | | | | |
| | Land and Land Rights | - | - | - | - | - | - | - | - | - | - | - | - |
| | Depreciable Land Rights | 14,812 | - | - | - | - | - | - | - | - | - | - | - |
| | Structures and Improvements | 4,090 | - | - | - | - | - | - | - | - | - | - | - |
| | Liquid Petroleum Gas Equipment | 110,841 | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 129,743 | - | - | - | - | - | - | - | - | - | - | - |
| Distribution Plant | | | | | | | | | | | | | |
| | Mains | 1,076,974 | - | - | - | - | - | - | - | - | - | - | - |
| | M & R Stations - General | 7,910 | - | - | - | - | - | - | - | - | - | - | - |
| | M & R Stations - City Gate | 39,734 | - | - | - | - | - | - | - | - | - | - | - |
| | Services | 712,438 | - | - | - | - | - | - | - | - | - | - | - |
| | Meters | 268,755 | - | - | - | - | - | - | - | - | - | - | - |
| | Meter Installations | 138,926 | - | - | - | - | - | - | - | - | - | - | - |
| | Regulating Equipment | 38,489 | - | - | - | - | - | - | - | - | - | - | - |
| | M & R Stations - Industrial | 73,721 | - | - | - | - | - | - | - | - | - | - | - |
| | Other Equipment | 15,319 | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 2,372,266 | - | - | - | - | - | - | - | - | - | - | - |
| General Plant | | | | | | | | | | | | | |
| | Structures and Improvements | 57,405 | - | - | - | - | - | - | - | - | - | - | - |
| | Office Equipment | 43,182 | - | - | - | - | - | - | - | - | - | - | - |
| | Vax System Equipment | - | - | - | - | - | - | - | - | - | - | - | - |
| | Transportation Equipment | (15,426) | - | - | - | - | - | - | - | - | - | - | - |
| | Tools and Work Equipment | 11,165 | - | - | - | - | - | - | - | - | - | - | - |
| | Laboratory Equipment | - | - | - | - | - | - | - | - | - | - | - | - |
| | Power Operated Equipment | 44,696 | - | - | - | - | - | - | - | - | - | - | - |
| | Communication Equipment | - | - | - | - | - | - | - | - | - | - | - | - |
| | Miscellaneous Equipment | 11,020 | - | - | - | - | - | - | - | - | - | - | - |
| | Other Intangible Property | - | - | - | - | - | - | - | - | - | - | - | - |
| | Plant Leased to Others | - | - | - | - | - | - | - | - | - | - | - | - |
| | Sub-total | 152,042 | - | - | - | - | - | - | - | - | - | - | - |
| TOTAL DEPRECIATION EXPENSE | | | | | | | | | | | | | |
| | | 2,654,050 | - | - | - | - | - | - | - | - | - | - | - |
| TOTAL EXPENSES | | | | | | | | | | | | | |
| | | 16,256,572 | 166 | (5,917) | (96) | 314,879 | 648,808 | 3,513,110 | 178,852 | 81,507 | 1,862,485 | - | - |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Functionalization

| Test Period at Proposed Revenues | | | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|----------------------------------|---------------------|--------|------------|------------|--------------|----------------|-------------|--------------|--------------|-----------------|-------------|-------------|-------------|
| No. | Account Description | Amount | F_PRODU_DD | F_DISTR_DD | F_DISTR_PAVG | F_PRODU_SSALES | F_PRODU_CDD | F_DISTR_THRU | F_DISTR_CUST | F_DISTR_SERVICE | F_DISTR_MET | F_DISTR_REG | F_DISTR_MNR |

Interest on Customer Deposits

| | | | | | | | | | | | | | |
|--|---------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Interest on Customer Deposits | 74,347 | - | - | - | - | - | - | - | - | - | - | - | - |
| Sub-total | 74,347 | - | - | - | - | - | - | - | - | - | - | - | - |
| TOTAL INTEREST ON CUSTOMER DEPOSITS | 74,347 | - | - | - | - | - | - | - | - | - | - | - | - |

TAXES (other than Income)

| | | | | | | | | | | | | | |
|--------------------------------------|------------------|---------------|----------------|---------------|--------------|--------------|---------------|----------------|----------------|----------------|---------------|---------------|--|
| Taxes (other than Income) | | | | | | | | | | | | | |
| Payroll | 511,237 | 1,132 | 23,156 | 7,176 | - | 1,295 | 28,390 | 31,329 | 44,784 | 50,235 | 6,356 | 5,293 | |
| Property | 1,359,722 | 53,030 | 297,514 | 13,854 | - | - | - | 402,519 | 362,579 | 187,400 | 23,712 | 19,114 | |
| Revenue Related | 157,057 | 3,378 | 37,114 | 844 | 3,406 | 595 | (62) | 50,213 | 30,480 | 30,092 | 2,693 | 1,494 | |
| Other Taxes | 26,092 | 561 | 6,166 | 140 | 566 | 99 | (10) | 8,342 | 5,064 | 4,999 | 447 | 248 | |
| Sub-total | 2,054,108 | 58,101 | 363,949 | 22,015 | 3,972 | 1,989 | 28,318 | 492,402 | 442,906 | 272,725 | 33,209 | 26,149 | |
| TOTAL TAXES OTHER THAN INCOME | 2,054,108 | 58,101 | 363,949 | 22,015 | 3,972 | 1,989 | 28,318 | 492,402 | 442,906 | 272,725 | 33,209 | 26,149 | |

Income Taxes

| | | | | | | | | | | | | | |
|---------------------------|------------------|---------------|----------------|---------------|---------------|---------------|----------------|------------------|----------------|----------------|---------------|---------------|--|
| Income Taxes | 3,257,426 | 70,055 | 769,755 | 17,502 | 70,651 | 12,337 | (1,283) | 1,041,434 | 632,162 | 624,120 | 55,861 | 30,986 | |
| Sub-total | 3,257,426 | 70,055 | 769,755 | 17,502 | 70,651 | 12,337 | (1,283) | 1,041,434 | 632,162 | 624,120 | 55,861 | 30,986 | |
| TOTAL INCOME TAXES | 3,257,426 | 70,055 | 769,755 | 17,502 | 70,651 | 12,337 | (1,283) | 1,041,434 | 632,162 | 624,120 | 55,861 | 30,986 | |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Functionalization

| Test Period at Proposed Revenues | | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | |
|----------------------------------|---------------------|--------|-----------------|----------------|----------------|------------------|--------------|--------------|-----------------|----------------|----------------|--------------|----------------|
| No. | Account Description | Amount | F_DISTR_BADDEBT | F_CBILL_CUSDEP | F_CBILL_CUSADV | F_DISTR_CINSTALL | F_CBILL_CMET | F_CBILL_CREC | F_CBILL_BADDEBT | F_CBILL_SCUSTS | F_CSERV_SCUSTS | F_CSERV_CUST | F_DISTR_CUSDEP |

Interest on Customer Deposits

| | | | | | | | | | | | | | |
|--|---------------|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Interest on Customer Deposits | 74,347 | - | - | - | - | - | - | - | - | - | - | - | 74,347 |
| Sub-total | 74,347 | - | - | - | - | - | - | - | - | - | - | - | 74,347 |
| TOTAL INTEREST ON CUSTOMER DEPOSITS | 74,347 | - | - | - | - | - | - | - | - | - | - | - | 74,347 |

TAXES (other than Income)

| | | | | | | | | | | | | | |
|--------------------------------------|------------------|------------|----------------|-------------|---------------|---------------|----------------|--------------|------------|---------------|---|---|---|
| Taxes (other than Income) | | | | | | | | | | | | | |
| Payroll | 511,237 | - | - | - | 20,548 | 34,538 | 161,030 | 1,959 | 893 | 93,124 | - | - | - |
| Property | 1,359,722 | - | - | - | - | - | - | - | - | - | - | - | - |
| Revenue Related | 157,057 | 105 | (3,761) | (61) | (16) | 23 | 318 | 62 | 28 | 112 | - | - | - |
| Other Taxes | 26,092 | 18 | (625) | (10) | (3) | 4 | 53 | 10 | 5 | 19 | - | - | - |
| Sub-total | 2,054,108 | 123 | (4,385) | (71) | 20,528 | 34,565 | 161,400 | 2,032 | 926 | 93,254 | - | - | - |
| TOTAL TAXES OTHER THAN INCOME | 2,054,108 | 123 | (4,385) | (71) | 20,528 | 34,565 | 161,400 | 2,032 | 926 | 93,254 | - | - | - |

Income Taxes

| | | | | | | | | | | | | | |
|---------------------------|------------------|--------------|-----------------|----------------|--------------|------------|--------------|--------------|------------|--------------|---|---|---|
| Income Taxes | 3,257,426 | 2,186 | (77,996) | (1,272) | (342) | 486 | 6,596 | 1,288 | 587 | 2,313 | - | - | - |
| Sub-total | 3,257,426 | 2,186 | (77,996) | (1,272) | (342) | 486 | 6,596 | 1,288 | 587 | 2,313 | - | - | - |
| TOTAL INCOME TAXES | 3,257,426 | 2,186 | (77,996) | (1,272) | (342) | 486 | 6,596 | 1,288 | 587 | 2,313 | - | - | - |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Class Allocation

Test Period at Proposed Revenues

| Test Period at Proposed Revenues | | | | | Line Ref. | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
|----------------------------------|-----------|-------|-------------|-----------|-------------|------|-----------|-------------|-----------|-----------|-----------|-----------|-------|--------|
| Function | | Class | Func/Class | Allocator | Total | RS-1 | RS-2 | GS | MVS | LVS | HLFS | GLR | IS | |
| RATE BASE | | | | | | | | | | | | | | |
| F_PRODU | DEM | | F_PRODU_DEM | DD | 1,525,623 | | 19,692 | 736,957 | 97,051 | 105,268 | 285,530 | 281,125 | - | - |
| F_DISTR | DEM | | F_DISTR_DEM | DD | 16,763,382 | | 216,368 | 8,097,603 | 1,066,385 | 1,156,679 | 3,137,373 | 3,088,974 | - | - |
| F_DISTR | DEM | | F_DISTR_DEM | PAVG | 381,146 | | 2,827 | 125,087 | 13,775 | 17,441 | 79,158 | 139,317 | 4 | 3,537 |
| F_PRODU | COM | | F_PRODU_COM | SSALES | 1,538,611 | | 24,011 | 1,110,940 | 120,312 | 123,238 | 91,033 | 69,056 | 20 | - |
| F_PRODU | COM | | F_PRODU_COM | CDD | 268,661 | | 3,468 | 129,778 | 17,091 | 18,538 | 50,282 | 49,506 | - | - |
| F_DISTR | COM | | F_DISTR_COM | THRU | (27,933) | | (206) | (9,128) | (1,003) | (1,272) | (5,806) | (10,255) | (0) | (262) |
| F_DISTR | CUS | | F_DISTR_CUS | CUST | 22,679,870 | | 2,047,799 | 18,761,462 | 1,380,928 | 235,451 | 99,188 | 151,671 | 2,407 | 963 |
| F_DISTR | CUS | | F_DISTR_CUS | SERVICE | 13,766,935 | | 1,236,117 | 11,298,384 | 847,179 | 157,681 | 77,158 | 112,304 | - | 38,111 |
| F_DISTR | CUS | | F_DISTR_CUS | MET | 13,591,803 | | 856,654 | 8,188,719 | 1,583,142 | 1,167,150 | 930,698 | 844,445 | - | 20,996 |
| F_DISTR | CUS | | F_DISTR_CUS | REG | 1,216,512 | | 107,690 | 986,826 | 90,245 | 15,433 | 6,459 | 9,858 | - | - |
| F_DISTR | CUS | | F_DISTR_CUS | MNR | 674,798 | | - | 456 | 75,612 | 113,590 | 253,716 | 229,879 | - | 1,544 |
| F_DISTR | CUS | | F_DISTR_CUS | BADDEBT | 47,610 | | 4,467 | 40,975 | 1,603 | 271 | 115 | 179 | - | - |
| F_CBILL | CUS | | F_CBILL_CUS | CUSDEP | (1,698,560) | | (147,137) | (1,347,032) | (151,196) | (25,789) | (10,889) | (16,517) | - | - |
| F_CBILL | CUS | | F_CBILL_CUS | CUSADV | (27,692) | | - | (343) | - | - | - | (27,349) | - | - |
| F_DISTR | CUS | | F_DISTR_CUS | CINSTALL | (7,446) | | (696) | (6,377) | (276) | (47) | (20) | (30) | - | - |
| F_CBILL | CUS | | F_CBILL_CUS | CMET | 10,581 | | 569 | 6,537 | 1,096 | 1,041 | 641 | 693 | - | 5 |
| F_CBILL | CUS | | F_CBILL_CUS | CREC | 143,639 | | 12,969 | 118,822 | 8,746 | 1,491 | 628 | 961 | 15 | 6 |
| F_CBILL | CUS | | F_CBILL_CUS | BADDEBT | 28,046 | | 2,631 | 24,138 | 944 | 160 | 67 | 105 | - | - |
| F_CBILL | CUS | | F_CBILL_CUS | SCUSTS | 12,781 | | 1,162 | 10,650 | 770 | 109 | 24 | 65 | - | - |
| F_CSERV | CUS | | F_CSERV_CUS | SCUSTS | 50,382 | | 4,582 | 41,981 | 3,036 | 431 | 95 | 256 | - | - |
| F_CSERV | CUS | | F_CSERV_CUS | CUST | - | | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | | F_DISTR_CUS | CUSDEP | - | | - | - | - | - | - | - | - | - |
| F_PRODU | | | | | | | | | | | | | | |
| | DEM | | | | 1,525,623 | | 19,692 | 736,957 | 97,051 | 105,268 | 285,530 | 281,125 | - | - |
| | COM | | | | 1,807,272 | | 27,479 | 1,240,718 | 137,403 | 141,776 | 141,314 | 118,562 | 20 | - |
| | CUS | | | | - | | - | - | - | - | - | - | - | - |
| | REV | | | | - | | - | - | - | - | - | - | - | - |
| | Sub-total | | | | 3,332,895 | | 47,171 | 1,977,675 | 234,454 | 247,044 | 426,844 | 399,687 | 20 | - |
| F_DISTR | | | | | | | | | | | | | | |
| | DEM | | | | 17,144,528 | | 219,195 | 8,222,690 | 1,080,160 | 1,174,119 | 3,216,532 | 3,228,291 | 4 | 3,537 |
| | COM | | | | (27,933) | | (206) | (9,128) | (1,003) | (1,272) | (5,806) | (10,255) | (0) | (262) |
| | CUS | | | | 51,970,082 | | 4,252,032 | 39,270,445 | 3,978,434 | 1,689,530 | 1,367,313 | 1,348,307 | 2,407 | 61,614 |
| | REV | | | | - | | - | - | - | - | - | - | - | - |
| | Sub-total | | | | 69,086,677 | | 4,471,021 | 47,484,007 | 5,057,591 | 2,862,377 | 4,578,038 | 4,566,343 | 2,411 | 64,890 |
| F_CBILL | | | | | | | | | | | | | | |
| | DEM | | | | - | | - | - | - | - | - | - | - | - |
| | COM | | | | - | | - | - | - | - | - | - | - | - |
| | CUS | | | | (1,531,204) | | (129,805) | (1,187,228) | (139,640) | (22,988) | (9,528) | (42,042) | 15 | 11 |
| | REV | | | | - | | - | - | - | - | - | - | - | - |
| | Sub-total | | | | (1,531,204) | | (129,805) | (1,187,228) | (139,640) | (22,988) | (9,528) | (42,042) | 15 | 11 |
| F_CSERV | | | | | | | | | | | | | | |
| | DEM | | | | - | | - | - | - | - | - | - | - | - |
| | COM | | | | - | | - | - | - | - | - | - | - | - |
| | CUS | | | | 50,382 | | 4,582 | 41,981 | 3,036 | 431 | 95 | 256 | - | - |
| | REV | | | | - | | - | - | - | - | - | - | - | - |
| | Sub-total | | | | 50,382 | | 4,582 | 41,981 | 3,036 | 431 | 95 | 256 | - | - |
| RATE BASE | | | | | | | | | | | | | | |
| | DEM | | | | 18,670,151 | | 238,887 | 8,959,647 | 1,177,211 | 1,279,388 | 3,502,062 | 3,509,416 | 4 | 3,537 |
| | COM | | | | 1,779,339 | | 27,273 | 1,231,590 | 136,400 | 140,504 | 135,508 | 108,307 | 20 | (262) |
| | CUS | | | | 50,489,259 | | 4,126,809 | 38,125,198 | 3,841,830 | 1,666,973 | 1,357,879 | 1,306,522 | 2,423 | 61,625 |
| | REV | | | | - | | - | - | - | - | - | - | - | - |
| | TOTAL | | | | 70,938,750 | | 4,392,969 | 48,316,435 | 5,155,441 | 3,086,864 | 4,995,449 | 4,924,245 | 2,447 | 64,900 |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Class Allocation

Test Period at Proposed Revenues

| Function | Class | Func/Class | Allocator | Line Ref. Total | 5 RS-1 | 6 RS-2 | 7 GS | 8 MVS | 9 LVS | 10 HLFS | 11 GLR | 12 IS |
|----------------|-----------|-------------|-----------|--------------------|-----------|-----------|---------|----------|----------|------------|-----------|----------|
| O & M EXPENSES | | | | | | | | | | | | |
| F_PRODU | DEM | F_PRODU_DEM | DD | 78,179 | 1,009 | 37,765 | 4,973 | 5,394 | 14,632 | 14,406 | - | - |
| F_DISTR | DEM | F_DISTR_DEM | DD | 281,944 | 3,639 | 136,194 | 17,936 | 19,454 | 52,768 | 51,954 | - | - |
| F_DISTR | DEM | F_DISTR_DEM | PAVG | 74,118 | 550 | 24,325 | 2,679 | 3,392 | 15,393 | 27,092 | 1 | 688 |
| F_PRODU | COM | F_PRODU_COM | SSALES | - | - | - | - | - | - | - | - | - |
| F_PRODU | COM | F_PRODU_COM | CDD | 29,966 | 387 | 14,475 | 1,906 | 2,068 | 5,608 | 5,522 | - | - |
| F_DISTR | COM | F_DISTR_COM | THRU | 61,619 | 454 | 20,137 | 2,212 | 2,807 | 12,809 | 22,624 | 1 | 577 |
| F_DISTR | CUS | F_DISTR_CUS | CUST | 381,454 | 34,442 | 315,550 | 23,226 | 3,960 | 1,668 | 2,551 | 40 | 16 |
| F_DISTR | CUS | F_DISTR_CUS | SERVICE | 518,211 | 46,530 | 425,291 | 31,889 | 5,935 | 2,904 | 4,227 | - | 1,435 |
| F_DISTR | CUS | F_DISTR_CUS | MET | 537,414 | 33,872 | 323,779 | 62,597 | 46,149 | 36,799 | 33,389 | - | 830 |
| F_DISTR | CUS | F_DISTR_CUS | REG | 68,000 | 6,020 | 55,162 | 5,045 | 863 | 361 | 551 | - | - |
| F_DISTR | CUS | F_DISTR_CUS | MNR | 98,451 | - | 67 | 11,031 | 16,572 | 37,016 | 33,539 | - | 225 |
| F_DISTR | CUS | F_DISTR_CUS | BADDEBT | - | - | - | - | - | - | - | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CUSDEP | - | - | - | - | - | - | - | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CUSADV | - | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | F_DISTR_CUS | CINSTALL | 110,643 | 10,336 | 94,759 | 4,105 | 696 | 300 | 448 | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CMET | 305,436 | 16,419 | 188,681 | 31,638 | 30,056 | 18,502 | 20,010 | - | 130 |
| F_CBILL | CUS | F_CBILL_CUS | CREC | 1,911,827 | 172,622 | 1,581,520 | 116,407 | 19,848 | 8,361 | 12,785 | 203 | 81 |
| F_CBILL | CUS | F_CBILL_CUS | BADDEBT | 159,277 | 14,944 | 137,081 | 5,364 | 907 | 383 | 598 | - | - |
| F_CBILL | CUS | F_CBILL_CUS | SCUSTS | 72,587 | 6,602 | 60,484 | 4,374 | 621 | 137 | 369 | - | - |
| F_CSERV | CUS | F_CSERV_CUS | SCUSTS | 936,569 | 85,181 | 780,407 | 56,440 | 8,011 | 1,763 | 4,767 | - | - |
| F_CSERV | CUS | F_CSERV_CUS | CUST | - | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | F_DISTR_CUS | CUSDEP | - | - | - | - | - | - | - | - | - |
| F_PRODU | | | | | | | | | | | | |
| | DEM | | | 78,179 | 1,009 | 37,765 | 4,973 | 5,394 | 14,632 | 14,406 | - | - |
| | COM | | | 29,966 | 387 | 14,475 | 1,906 | 2,068 | 5,608 | 5,522 | - | - |
| | CUS | | | - | - | - | - | - | - | - | - | - |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | 108,146 | 1,396 | 52,240 | 6,880 | 7,462 | 20,240 | 19,928 | - | - |
| F_DISTR | | | | | | | | | | | | |
| | DEM | | | 356,063 | 4,189 | 160,519 | 20,614 | 22,846 | 68,161 | 79,045 | 1 | 688 |
| | COM | | | 61,619 | 454 | 20,137 | 2,212 | 2,807 | 12,809 | 22,624 | 1 | 577 |
| | CUS | | | 1,714,173 | 131,199 | 1,214,606 | 137,893 | 74,175 | 79,049 | 74,705 | 40 | 2,506 |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | 2,131,855 | 135,842 | 1,395,262 | 160,719 | 99,827 | 160,019 | 176,374 | 42 | 3,771 |
| F_CBILL | | | | | | | | | | | | |
| | DEM | | | - | - | - | - | - | - | - | - | - |
| | COM | | | - | - | - | - | - | - | - | - | - |
| | CUS | | | 2,449,128 | 210,586 | 1,967,766 | 157,783 | 51,432 | 27,383 | 33,764 | 203 | 211 |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | 2,449,128 | 210,586 | 1,967,766 | 157,783 | 51,432 | 27,383 | 33,764 | 203 | 211 |
| F_CSERV | | | | | | | | | | | | |
| | DEM | | | - | - | - | - | - | - | - | - | - |
| | COM | | | - | - | - | - | - | - | - | - | - |
| | CUS | | | 936,569 | 85,181 | 780,407 | 56,440 | 8,011 | 1,763 | 4,767 | - | - |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | 936,569 | 85,181 | 780,407 | 56,440 | 8,011 | 1,763 | 4,767 | - | - |
| O & M EXPENSES | | | | | | | | | | | | |
| | DEM | | | 434,242 | 5,198 | 198,283 | 25,588 | 28,240 | 82,793 | 93,452 | 1 | 688 |
| | COM | | | 91,585 | 841 | 34,612 | 4,118 | 4,874 | 18,417 | 28,145 | 1 | 577 |
| | CUS | | | 5,099,870 | 426,966 | 3,962,779 | 352,116 | 133,618 | 108,194 | 113,235 | 243 | 2,718 |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | TOTAL | | | 5,625,697 | 433,005 | 4,195,675 | 381,822 | 166,732 | 209,404 | 234,832 | 245 | 3,982 |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Class Allocation
Test Period at Proposed Revenues

| Function | Class | Func/Class | Allocator | Line Ref. Total | 5 RS-1 | 6 RS-2 | 7 GS | 8 MVS | 9 LVS | 10 HLFS | 11 GLR | 12 IS |
|----------------|-----------|-------------|-----------|--------------------|-----------|-----------|---------|----------|----------|------------|-----------|----------|
| A & G EXPENSES | | | | | | | | | | | | |
| F_PRODU | DEM | F_PRODU_DEM | DD | 119,824 | 1,547 | 57,881 | 7,622 | 8,268 | 22,426 | 22,080 | - | - |
| F_DISTR | DEM | F_DISTR_DEM | DD | 967,982 | 11,202 | 419,233 | 55,209 | 59,884 | 162,430 | 159,924 | - | - |
| F_DISTR | DEM | F_DISTR_DEM | PAVG | 99,642 | 739 | 32,701 | 3,601 | 4,560 | 20,694 | 36,421 | 1 | 925 |
| F_PRODU | COM | F_PRODU_COM | SSALES | 5,360 | 84 | 3,870 | 419 | 429 | 317 | 241 | 0 | - |
| F_PRODU | COM | F_PRODU_COM | CDD | 13,814 | 178 | 6,673 | 879 | 953 | 2,585 | 2,545 | - | - |
| F_DISTR | COM | F_DISTR_COM | THRU | 282,130 | 2,079 | 92,198 | 10,126 | 12,851 | 58,646 | 103,584 | 3 | 2,642 |
| F_DISTR | CUS | F_DISTR_CUS | CUST | 1,174,193 | 106,020 | 971,327 | 71,494 | 12,190 | 5,135 | 7,852 | 125 | 50 |
| F_DISTR | CUS | F_DISTR_CUS | SERVICE | 1,199,131 | 107,669 | 984,115 | 73,791 | 13,734 | 6,721 | 9,782 | - | 3,320 |
| F_DISTR | CUS | F_DISTR_CUS | MET | 911,615 | 57,457 | 549,225 | 106,183 | 78,282 | 62,423 | 56,638 | - | 1,408 |
| F_DISTR | CUS | F_DISTR_CUS | REG | 113,596 | 10,056 | 92,148 | 8,427 | 1,441 | 603 | 921 | - | - |
| F_DISTR | CUS | F_DISTR_CUS | MNR | 92,184 | - | 62 | 10,329 | 15,518 | 34,660 | 31,404 | - | 211 |
| F_DISTR | CUS | F_DISTR_CUS | BADDEBT | 166 | 16 | 143 | 6 | 1 | 0 | 1 | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CUSDEP | (5,917) | (513) | (4,693) | (527) | (90) | (38) | (58) | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CUSADV | (96) | - | (1) | - | - | - | (95) | - | - |
| F_DISTR | CUS | F_DISTR_CUS | CINSTALL | 204,237 | 19,079 | 174,916 | 7,577 | 1,284 | 554 | 826 | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CMET | 343,371 | 18,458 | 212,115 | 35,567 | 33,789 | 20,800 | 22,496 | - | 146 |
| F_CBILL | CUS | F_CBILL_CUS | CREC | 1,601,293 | 144,582 | 1,324,629 | 97,499 | 16,624 | 7,003 | 10,709 | 170 | 68 |
| F_CBILL | CUS | F_CBILL_CUS | BADDEBT | 19,574 | 1,837 | 16,846 | 659 | 111 | 47 | 74 | - | - |
| F_CBILL | CUS | F_CBILL_CUS | SCUSTS | 8,920 | 811 | 7,433 | 538 | 76 | 17 | 45 | - | - |
| F_CSERV | CUS | F_CSERV_CUS | SCUSTS | 925,916 | 84,212 | 771,531 | 55,798 | 7,920 | 1,742 | 4,713 | - | - |
| F_CSERV | CUS | F_CSERV_CUS | CUST | - | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | F_DISTR_CUS | CUSDEP | - | - | - | - | - | - | - | - | - |
| F_PRODU | | | | | | | | | | | | |
| | DEM | | | 119,824 | 1,547 | 57,881 | 7,622 | 8,268 | 22,426 | 22,080 | - | - |
| | COM | | | 19,174 | 262 | 10,543 | 1,298 | 1,383 | 2,903 | 2,786 | 0 | - |
| | CUS | | | - | - | - | - | - | - | - | - | - |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | 138,998 | 1,809 | 68,425 | 8,920 | 9,650 | 25,328 | 24,866 | 0 | - |
| F_DISTR | | | | | | | | | | | | |
| | DEM | | | 967,924 | 11,941 | 451,934 | 58,810 | 64,444 | 183,124 | 196,345 | 1 | 925 |
| | COM | | | 282,130 | 2,079 | 92,198 | 10,126 | 12,851 | 58,646 | 103,584 | 3 | 2,642 |
| | CUS | | | 3,695,121 | 300,296 | 2,771,936 | 277,807 | 122,450 | 110,096 | 107,423 | 125 | 4,989 |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | 4,944,775 | 314,315 | 3,316,069 | 346,744 | 199,744 | 351,866 | 407,353 | 129 | 8,555 |
| F_CBILL | | | | | | | | | | | | |
| | DEM | | | - | - | - | - | - | - | - | - | - |
| | COM | | | - | - | - | - | - | - | - | - | - |
| | CUS | | | 1,967,135 | 165,176 | 1,556,329 | 133,736 | 50,511 | 27,829 | 33,170 | 170 | 214 |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | 1,967,135 | 165,176 | 1,556,329 | 133,736 | 50,511 | 27,829 | 33,170 | 170 | 214 |
| F_CSERV | | | | | | | | | | | | |
| | DEM | | | - | - | - | - | - | - | - | - | - |
| | COM | | | - | - | - | - | - | - | - | - | - |
| | CUS | | | 925,916 | 84,212 | 771,531 | 55,798 | 7,920 | 1,742 | 4,713 | - | - |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | 925,916 | 84,212 | 771,531 | 55,798 | 7,920 | 1,742 | 4,713 | - | - |
| A & G EXPENSES | | | | | | | | | | | | |
| | DEM | | | 1,087,348 | 13,488 | 509,816 | 66,433 | 72,712 | 205,550 | 218,425 | 1 | 925 |
| | COM | | | 301,304 | 2,341 | 102,741 | 11,424 | 14,233 | 61,549 | 106,370 | 3 | 2,642 |
| | CUS | | | 6,588,172 | 549,683 | 5,099,796 | 467,341 | 180,880 | 139,667 | 145,306 | 295 | 5,203 |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | TOTAL | | | 7,976,825 | 565,511 | 5,712,354 | 545,199 | 267,825 | 406,766 | 470,102 | 299 | 8,770 |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Class Allocation

Test Period at Proposed Revenues

| Function | Class | Func/Class | Allocator | Line Ref. Total | 5 RS-1 | 6 RS-2 | 7 GS | 8 MVS | 9 LVS | 10 HLFS | 11 GLR | 12 IS |
|-----------------------------|-------|-------------|-----------|--------------------|-----------|-----------|---------|----------|----------|------------|-----------|----------|
| Depreciation Expense | | | | | | | | | | | | |
| F_PRODU | DEM | F_PRODU_DEM | DD | 135,672 | 1,751 | 65,537 | 8,631 | 9,361 | 25,392 | 25,000 | - | - |
| F_DISTR | DEM | F_DISTR_DEM | DD | 494,469 | 6,382 | 238,855 | 31,455 | 34,119 | 92,543 | 91,115 | - | - |
| F_DISTR | DEM | F_DISTR_DEM | PAVG | 49,356 | 366 | 16,198 | 1,784 | 2,258 | 10,251 | 18,041 | 1 | 458 |
| F_PRODU | COM | F_PRODU_COM | SSALES | - | - | - | - | - | - | - | - | - |
| F_PRODU | COM | F_PRODU_COM | CDD | - | - | - | - | - | - | - | - | - |
| F_DISTR | COM | F_DISTR_COM | THRU | - | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | F_DISTR_CUS | CUST | 668,988 | 60,404 | 553,407 | 40,733 | 6,945 | 2,926 | 4,474 | 71 | 28 |
| F_DISTR | CUS | F_DISTR_CUS | SERVICE | 757,232 | 67,991 | 621,452 | 46,598 | 8,673 | 4,244 | 6,177 | - | 2,096 |
| F_DISTR | CUS | F_DISTR_CUS | MET | 430,832 | 27,154 | 259,565 | 50,182 | 36,996 | 29,501 | 26,767 | - | 666 |
| F_DISTR | CUS | F_DISTR_CUS | REG | 41,419 | 3,667 | 33,599 | 3,073 | 525 | 220 | 336 | - | - |
| F_DISTR | CUS | F_DISTR_CUS | MNR | 76,082 | - | 51 | 8,525 | 12,807 | 28,606 | 25,918 | - | 174 |
| F_DISTR | CUS | F_DISTR_CUS | BADDEBT | - | - | - | - | - | - | - | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CUSDEP | - | - | - | - | - | - | - | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CUSADV | - | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | F_DISTR_CUS | CINSTALL | - | - | - | - | - | - | - | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CMET | - | - | - | - | - | - | - | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CREC | - | - | - | - | - | - | - | - | - |
| F_CBILL | CUS | F_CBILL_CUS | BADDEBT | - | - | - | - | - | - | - | - | - |
| F_CBILL | CUS | F_CBILL_CUS | SCUSTS | - | - | - | - | - | - | - | - | - |
| F_CSERV | CUS | F_CSERV_CUS | SCUSTS | - | - | - | - | - | - | - | - | - |
| F_CSERV | CUS | F_CSERV_CUS | CUST | - | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | F_DISTR_CUS | CUSDEP | - | - | - | - | - | - | - | - | - |
| | | | | | | | | | | | | |
| F_PRODU | | DEM | | 135,672 | 1,751 | 65,537 | 8,631 | 9,361 | 25,392 | 25,000 | - | - |
| | | COM | | - | - | - | - | - | - | - | - | - |
| | | CUS | | - | - | - | - | - | - | - | - | - |
| | | REV | | - | - | - | - | - | - | - | - | - |
| | | Sub-total | | 135,672 | 1,751 | 65,537 | 8,631 | 9,361 | 25,392 | 25,000 | - | - |
| | | | | | | | | | | | | |
| F_DISTR | | DEM | | 543,825 | 6,748 | 255,053 | 33,239 | 36,377 | 102,794 | 109,156 | 1 | 458 |
| | | COM | | - | - | - | - | - | - | - | - | - |
| | | CUS | | 1,974,553 | 159,216 | 1,468,075 | 149,111 | 65,947 | 65,497 | 63,672 | 71 | 2,964 |
| | | REV | | - | - | - | - | - | - | - | - | - |
| | | Sub-total | | 2,518,378 | 165,964 | 1,723,127 | 182,350 | 102,324 | 168,290 | 172,828 | 72 | 3,422 |
| | | | | | | | | | | | | |
| F_CBILL | | DEM | | - | - | - | - | - | - | - | - | - |
| | | COM | | - | - | - | - | - | - | - | - | - |
| | | CUS | | - | - | - | - | - | - | - | - | - |
| | | REV | | - | - | - | - | - | - | - | - | - |
| | | Sub-total | | - | - | - | - | - | - | - | - | - |
| | | | | | | | | | | | | |
| F_CSERV | | DEM | | - | - | - | - | - | - | - | - | - |
| | | COM | | - | - | - | - | - | - | - | - | - |
| | | CUS | | - | - | - | - | - | - | - | - | - |
| | | REV | | - | - | - | - | - | - | - | - | - |
| | | Sub-total | | - | - | - | - | - | - | - | - | - |
| | | | | | | | | | | | | |
| Depreciation Expense | | DEM | | 679,498 | 8,499 | 320,590 | 41,870 | 45,738 | 128,186 | 134,156 | 1 | 458 |
| | | COM | | - | - | - | - | - | - | - | - | - |
| | | CUS | | 1,974,553 | 159,216 | 1,468,075 | 149,111 | 65,947 | 65,497 | 63,672 | 71 | 2,964 |
| | | REV | | - | - | - | - | - | - | - | - | - |
| | | TOTAL | | 2,654,050 | 167,715 | 1,788,664 | 190,981 | 111,685 | 193,682 | 197,829 | 72 | 3,422 |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Class Allocation

Test Period at Proposed Revenues

| Function | Class | Func/Class | Allocator | Line Ref. Total | 5 RS-1 | 6 RS-2 | 7 GS | 8 MVS | 9 LVS | 10 HLFS | 11 GLR | 12 IS |
|--------------------|-----------|-------------|-----------|--------------------|-----------|-----------|---------|----------|----------|------------|-----------|----------|
| TIMING DIFFERENCES | | | | | | | | | | | | |
| F_PRODU | DEM | F_PRODU_DEM | DD | 70,065 | 904 | 33,840 | 4,466 | 4,834 | 13,111 | 12,909 | - | - |
| F_DISTR | DEM | F_DISTR_DEM | DD | 769,755 | 9,935 | 371,833 | 48,967 | 53,113 | 144,065 | 141,842 | - | - |
| F_DISTR | DEM | F_DISTR_DEM | PAVG | 17,502 | 130 | 5,744 | 633 | 801 | 3,635 | 6,397 | 0 | 162 |
| F_PRODU | COM | F_PRODU_COM | SSALES | 70,651 | 1,103 | 51,013 | 5,525 | 5,659 | 4,180 | 3,171 | 1 | - |
| F_PRODU | COM | F_PRODU_COM | CDD | 12,337 | 159 | 5,959 | 785 | 851 | 2,309 | 2,273 | - | - |
| F_DISTR | COM | F_DISTR_COM | THRU | (1,283) | (9) | (419) | (46) | (58) | (267) | (471) | (0) | (12) |
| F_DISTR | CUS | F_DISTR_CUS | CUST | 1,041,434 | 94,033 | 861,505 | 63,411 | 10,812 | 4,555 | 6,965 | 111 | 44 |
| F_DISTR | CUS | F_DISTR_CUS | SERVICE | 632,162 | 56,761 | 518,809 | 38,901 | 7,241 | 3,543 | 5,157 | - | 1,750 |
| F_DISTR | CUS | F_DISTR_CUS | MET | 624,120 | 39,337 | 376,017 | 72,696 | 53,594 | 42,737 | 38,776 | - | 964 |
| F_DISTR | CUS | F_DISTR_CUS | REG | 55,861 | 4,945 | 45,314 | 4,144 | 709 | 297 | 453 | - | - |
| F_DISTR | CUS | F_DISTR_CUS | MNR | 30,986 | - | 21 | 3,472 | 5,216 | 11,650 | 10,556 | - | 71 |
| F_DISTR | CUS | F_DISTR_CUS | BADDEBT | 2,186 | 205 | 1,882 | 74 | 12 | 5 | 8 | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CUSDEP | (77,996) | (6,756) | (61,854) | (6,943) | (1,184) | (500) | (758) | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CUSADV | (1,272) | - | (16) | - | - | - | (1,256) | - | - |
| F_DISTR | CUS | F_DISTR_CUS | CINSTALL | (342) | (32) | (293) | (13) | (2) | (1) | (1) | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CMET | 486 | 26 | 300 | 50 | 48 | 29 | 32 | - | 0 |
| F_CBILL | CUS | F_CBILL_CUS | CREC | 6,596 | 596 | 5,456 | 402 | 68 | 29 | 44 | 1 | 0 |
| F_CBILL | CUS | F_CBILL_CUS | BADDEBT | 1,288 | 121 | 1,108 | 43 | 7 | 3 | 5 | - | - |
| F_CBILL | CUS | F_CBILL_CUS | SCUSTS | 587 | 53 | 489 | 35 | 5 | 1 | 3 | - | - |
| F_CSERV | CUS | F_CSERV_CUS | SCUSTS | 2,313 | 210 | 1,928 | 139 | 20 | 4 | 12 | - | - |
| F_CSERV | CUS | F_CSERV_CUS | CUST | - | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | F_DISTR_CUS | CUSDEP | - | - | - | - | - | - | - | - | - |
| F_PRODU | | | | | | | | | | | | |
| | DEM | | | 70,055 | 904 | 33,840 | 4,466 | 4,834 | 13,111 | 12,909 | - | - |
| | COM | | | 82,988 | 1,262 | 56,972 | 6,309 | 6,510 | 6,489 | 5,444 | 1 | - |
| | CUS | | | - | - | - | - | - | - | - | - | - |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | 153,043 | 2,166 | 90,813 | 10,766 | 11,344 | 19,600 | 18,353 | 1 | - |
| F_DISTR | | | | | | | | | | | | |
| | DEM | | | 787,257 | 10,065 | 377,576 | 49,600 | 53,914 | 147,699 | 148,239 | 0 | 162 |
| | COM | | | (1,283) | (9) | (419) | (46) | (58) | (267) | (471) | (0) | (12) |
| | CUS | | | 2,386,406 | 195,248 | 1,803,254 | 182,685 | 77,581 | 62,785 | 61,913 | 111 | 2,829 |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | 3,172,381 | 205,304 | 2,180,411 | 232,239 | 131,437 | 210,218 | 209,681 | 111 | 2,980 |
| F_CBILL | | | | | | | | | | | | |
| | DEM | | | - | - | - | - | - | - | - | - | - |
| | COM | | | - | - | - | - | - | - | - | - | - |
| | CUS | | | (70,311) | (5,960) | (54,516) | (6,412) | (1,056) | (438) | (1,931) | 1 | 0 |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | (70,311) | (5,960) | (54,516) | (6,412) | (1,056) | (438) | (1,931) | 1 | 0 |
| F_CSERV | | | | | | | | | | | | |
| | DEM | | | - | - | - | - | - | - | - | - | - |
| | COM | | | - | - | - | - | - | - | - | - | - |
| | CUS | | | 2,313 | 210 | 1,928 | 139 | 20 | 4 | 12 | - | - |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | 2,313 | 210 | 1,928 | 139 | 20 | 4 | 12 | - | - |
| TIMING DIFFERENCES | | | | | | | | | | | | |
| | DEM | | | 857,312 | 10,969 | 411,417 | 54,056 | 58,748 | 160,811 | 161,148 | 0 | 162 |
| | COM | | | 81,705 | 1,252 | 56,553 | 6,263 | 6,452 | 6,222 | 4,973 | 1 | (12) |
| | CUS | | | 2,318,409 | 189,498 | 1,750,665 | 176,412 | 76,545 | 62,352 | 59,994 | 111 | 2,830 |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | TOTAL | | | 3,257,426 | 201,720 | 2,218,635 | 236,732 | 141,745 | 229,385 | 226,116 | 112 | 2,980 |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Class Allocation

Test Period at Proposed Revenues

| Function | Class | Func/Class | Allocator | Line Ref. Total | 5 RS-1 | 6 RS-2 | 7 GS | 8 MVS | 9 LVS | 10 HLFS | 11 GLR | 12 IS |
|-------------------------------|-----------|-------------|-----------|--------------------|-----------|-----------|---------|----------|----------|------------|-----------|----------|
| Interest on Customer Deposits | | | | | | | | | | | | |
| F_PRODU | DEM | F_PRODU_DEM | DD | - | - | - | - | - | - | - | - | - |
| F_DISTR | DEM | F_DISTR_DEM | DD | - | - | - | - | - | - | - | - | - |
| F_DISTR | DEM | F_DISTR_DEM | PAVG | - | - | - | - | - | - | - | - | - |
| F_PRODU | COM | F_PRODU_COM | SSALES | - | - | - | - | - | - | - | - | - |
| F_PRODU | COM | F_PRODU_COM | CDD | - | - | - | - | - | - | - | - | - |
| F_DISTR | COM | F_DISTR_COM | THRU | - | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | F_DISTR_CUS | CUST | - | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | F_DISTR_CUS | SERVICE | - | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | F_DISTR_CUS | MET | - | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | F_DISTR_CUS | REG | - | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | F_DISTR_CUS | MNR | - | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | F_DISTR_CUS | BADDEBT | - | - | - | - | - | - | - | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CUSDEP | - | - | - | - | - | - | - | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CUSADV | - | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | F_DISTR_CUS | CINSTALL | - | - | - | - | - | - | - | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CMET | - | - | - | - | - | - | - | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CREC | - | - | - | - | - | - | - | - | - |
| F_CBILL | CUS | F_CBILL_CUS | BADDEBT | - | - | - | - | - | - | - | - | - |
| F_CBILL | CUS | F_CBILL_CUS | SCUSTS | - | - | - | - | - | - | - | - | - |
| F_CSERV | CUS | F_CSERV_CUS | SCUSTS | - | - | - | - | - | - | - | - | - |
| F_CSERV | CUS | F_CSERV_CUS | CUST | - | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | F_DISTR_CUS | CUSDEP | 74,347 | 6,440 | 58,960 | 6,618 | 1,129 | 477 | 723 | - | - |
| F_PRODU | | | | | | | | | | | | |
| | DEM | | | - | - | - | - | - | - | - | - | - |
| | COM | | | - | - | - | - | - | - | - | - | - |
| | CUS | | | - | - | - | - | - | - | - | - | - |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | - | - | - | - | - | - | - | - | - |
| F_DISTR | | | | | | | | | | | | |
| | DEM | | | - | - | - | - | - | - | - | - | - |
| | COM | | | - | - | - | - | - | - | - | - | - |
| | CUS | | | 74,347 | 6,440 | 58,960 | 6,618 | 1,129 | 477 | 723 | - | - |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | 74,347 | 6,440 | 58,960 | 6,618 | 1,129 | 477 | 723 | - | - |
| F_CBILL | | | | | | | | | | | | |
| | DEM | | | - | - | - | - | - | - | - | - | - |
| | COM | | | - | - | - | - | - | - | - | - | - |
| | CUS | | | - | - | - | - | - | - | - | - | - |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | - | - | - | - | - | - | - | - | - |
| F_CSERV | | | | | | | | | | | | |
| | DEM | | | - | - | - | - | - | - | - | - | - |
| | COM | | | - | - | - | - | - | - | - | - | - |
| | CUS | | | - | - | - | - | - | - | - | - | - |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | - | - | - | - | - | - | - | - | - |
| Interest on Customer Deposits | | | | | | | | | | | | |
| | DEM | | | - | - | - | - | - | - | - | - | - |
| | COM | | | - | - | - | - | - | - | - | - | - |
| | CUS | | | 74,347 | 6,440 | 58,960 | 6,618 | 1,129 | 477 | 723 | - | - |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | TOTAL | | | 74,347 | 6,440 | 58,960 | 6,618 | 1,129 | 477 | 723 | - | - |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Class Allocation

Test Period at Proposed Revenues

| Function | Class | Func/Class | Allocator | Line Ref. Total | 5 RS-1 | 6 RS-2 | 7 GS | 8 MVS | 9 LVS | 10 HLFS | 11 GLR | 12 IS |
|---------------------------|-----------|-------------|-----------|--------------------|-----------|-----------|---------|----------|----------|------------|-----------|----------|
| TAXES (other than Income) | | | | | | | | | | | | |
| F_PRODU | DEM | F_PRODU_DEM | DD | 58,101 | 750 | 28,066 | 3,696 | 4,009 | 10,874 | 10,706 | - | - |
| F_DISTR | DEM | F_DISTR_DEM | DD | 363,949 | 4,698 | 175,807 | 23,152 | 25,113 | 68,115 | 67,065 | - | - |
| F_DISTR | DEM | F_DISTR_DEM | PAVG | 22,015 | 163 | 7,225 | 796 | 1,007 | 4,572 | 8,047 | 0 | 204 |
| F_PRODU | COM | F_PRODU_COM | SSALES | 3,972 | 62 | 2,868 | 311 | 318 | 235 | 178 | 0 | - |
| F_PRODU | COM | F_PRODU_COM | CDD | 1,989 | 26 | 961 | 127 | 137 | 372 | 367 | - | - |
| F_DISTR | COM | F_DISTR_COM | THRU | 28,318 | 209 | 9,254 | 1,016 | 1,290 | 5,887 | 10,397 | 0 | 265 |
| F_DISTR | CUS | F_DISTR_CUS | CUST | 492,402 | 44,460 | 407,330 | 29,981 | 5,112 | 2,153 | 3,293 | 52 | 21 |
| F_DISTR | CUS | F_DISTR_CUS | SERVICE | 442,906 | 39,768 | 363,489 | 27,255 | 5,073 | 2,482 | 3,613 | - | 1,226 |
| F_DISTR | CUS | F_DISTR_CUS | MET | 272,725 | 17,189 | 164,310 | 31,766 | 23,419 | 18,675 | 16,944 | - | 421 |
| F_DISTR | CUS | F_DISTR_CUS | REG | 33,209 | 2,940 | 26,939 | 2,464 | 421 | 176 | 269 | - | - |
| F_DISTR | CUS | F_DISTR_CUS | MNR | 26,149 | - | 18 | 2,930 | 4,402 | 9,832 | 8,908 | - | 60 |
| F_DISTR | CUS | F_DISTR_CUS | BADDEBT | 123 | 12 | 106 | 4 | 1 | 0 | 0 | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CUSDEP | (4,385) | (380) | (3,478) | (390) | (67) | (28) | (43) | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CUSADV | (71) | - | (1) | - | - | - | (71) | - | - |
| F_DISTR | CUS | F_DISTR_CUS | CINSTALL | 20,528 | 1,918 | 17,581 | 762 | 129 | 56 | 83 | - | - |
| F_CBILL | CUS | F_CBILL_CUS | CMET | 34,565 | 1,858 | 21,352 | 3,580 | 3,401 | 2,094 | 2,264 | - | 15 |
| F_CBILL | CUS | F_CBILL_CUS | CREC | 161,400 | 14,573 | 133,515 | 9,827 | 1,676 | 706 | 1,079 | 17 | 7 |
| F_CBILL | CUS | F_CBILL_CUS | BADDEBT | 2,032 | 191 | 1,749 | 68 | 12 | 5 | 8 | - | - |
| F_CBILL | CUS | F_CBILL_CUS | SCUSTS | 926 | 84 | 771 | 66 | 8 | 2 | 5 | - | - |
| F_CSERV | CUS | F_CSERV_CUS | SCUSTS | 93,254 | 8,481 | 77,705 | 5,620 | 798 | 175 | 475 | - | - |
| F_CSERV | CUS | F_CSERV_CUS | CUST | - | - | - | - | - | - | - | - | - |
| F_DISTR | CUS | F_DISTR_CUS | CUSDEP | - | - | - | - | - | - | - | - | - |
| F_PRODU | | | | | | | | | | | | |
| | DEM | | | 58,101 | 750 | 28,066 | 3,696 | 4,009 | 10,874 | 10,706 | - | - |
| | COM | | | 5,961 | 88 | 3,829 | 437 | 455 | 607 | 545 | 0 | - |
| | CUS | | | - | - | - | - | - | - | - | - | - |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | 64,063 | 838 | 31,895 | 4,133 | 4,464 | 11,481 | 11,251 | 0 | - |
| F_DISTR | | | | | | | | | | | | |
| | DEM | | | 385,964 | 4,861 | 183,032 | 23,948 | 26,120 | 72,688 | 75,111 | 0 | 204 |
| | COM | | | 28,318 | 209 | 9,254 | 1,016 | 1,290 | 5,887 | 10,397 | 0 | 265 |
| | CUS | | | 1,288,043 | 106,286 | 979,772 | 95,162 | 38,557 | 33,375 | 33,111 | 52 | 1,728 |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | 1,702,325 | 111,355 | 1,172,058 | 120,127 | 65,967 | 111,949 | 118,619 | 53 | 2,198 |
| F_CBILL | | | | | | | | | | | | |
| | DEM | | | - | - | - | - | - | - | - | - | - |
| | COM | | | - | - | - | - | - | - | - | - | - |
| | CUS | | | 194,466 | 16,326 | 153,909 | 13,142 | 5,030 | 2,778 | 3,243 | 17 | 22 |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | 194,466 | 16,326 | 153,909 | 13,142 | 5,030 | 2,778 | 3,243 | 17 | 22 |
| F_CSERV | | | | | | | | | | | | |
| | DEM | | | - | - | - | - | - | - | - | - | - |
| | COM | | | - | - | - | - | - | - | - | - | - |
| | CUS | | | 93,254 | 8,481 | 77,705 | 5,620 | 798 | 175 | 475 | - | - |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | Sub-total | | | 93,254 | 8,481 | 77,705 | 5,620 | 798 | 175 | 475 | - | - |
| TAXES (other than Income) | | | | | | | | | | | | |
| | DEM | | | 444,065 | 5,611 | 211,098 | 27,644 | 30,129 | 83,562 | 85,818 | 0 | 204 |
| | COM | | | 34,280 | 296 | 13,083 | 1,454 | 1,745 | 6,494 | 10,942 | 0 | 265 |
| | CUS | | | 1,575,763 | 131,094 | 1,211,387 | 113,924 | 44,384 | 36,328 | 36,828 | 69 | 1,750 |
| | REV | | | - | - | - | - | - | - | - | - | - |
| | TOTAL | | | 2,054,108 | 137,001 | 1,435,568 | 143,021 | 76,259 | 126,384 | 133,588 | 70 | 2,219 |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis

Class Allocation

Test Period at Proposed Revenues

| REVENUE | Function Class | | Func/Class | Allocator | Line Ref. Total | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---------|------------------------|--|--------------|-----------|--------------------|---------|------------|-----------|---------|-----------|-----------|-----|---------|
| | | | | | | RS-1 | RS-2 | GS | MVS | LVS | HLFS | GLR | IS |
| | Base Revenue | | REV_BASE | | 22,223,119 | 824,887 | 13,899,066 | 1,469,623 | 890,630 | 2,114,684 | 2,860,887 | 705 | 162,637 |
| | Other Revenue | | REV_OTHER | | 455,585 | 58,572 | 366,540 | 25,706 | 1,680 | 622 | 2,464 | - | - |
| | Unbilled | | REV_UNBILLED | | 3,518 | 330 | 3,028 | 118 | | 20 | 8 | 13 | - |
| | NGV Revenue | | REV_BASE | | 2,606 | 97 | 1,630 | 172 | 104 | 248 | 336 | 0 | 19 |
| | Rent from Gas Property | | REV_RENT | | 21,600 | 1,338 | 14,712 | 1,570 | 940 | 1,521 | 1,499 | 1 | 20 |
| | Margin Sharing | | REV_THRU | | 186,628 | 1,375 | 60,989 | 6,699 | 8,501 | 38,794 | 68,521 | 2 | 1,748 |
| | Revenue Related Taxes | | REV_THRU | | 72,846 | 537 | 23,806 | 2,615 | 3,318 | 15,142 | 26,746 | 1 | 682 |
| | TOTAL REVENUE | | | | 22,965,902 | 887,136 | 14,369,770 | 1,506,503 | 905,194 | 2,171,020 | 2,960,465 | 709 | 165,105 |

Chesapeake Utilities - Delaware Division

Cost of Service Analysis - Inputs

External Allocators

Test Period at Proposed Revenues

| Name | Description | Classifier | Total | RS-1 | RS-2 | GS | MVS | LVS | HLFS | GLR | IS |
|---------|------------------------|------------|-----------|--------|-----------|---------|---------|---------|-----------|-------|--------|
| DD | Design Day | DEM | | 1.29% | 48.31% | 6.36% | 6.90% | 18.72% | 18.43% | 0.00% | 0.00% |
| | Test Year | | 66,338 | 1,023 | 32,809 | 4,052 | 4,348 | 12,053 | 12,053 | - | - |
| | Test Period | | 69,806 | 901 | 33,720 | 4,441 | 4,817 | 13,065 | 12,863 | - | - |
| PAVG | Peak and Average | DEM | | 0.74% | 32.82% | 3.61% | 4.58% | 20.77% | 36.55% | 0.00% | 0.93% |
| | Test Year | | 4,050,955 | 42,817 | 1,384,494 | 163,808 | 187,405 | 640,824 | 1,595,217 | 42 | 36,350 |
| | Test Period | | 3,916,790 | 29,051 | 1,285,437 | 141,552 | 179,227 | 813,460 | 1,431,672 | 42 | 36,350 |
| CUST | Average Customers | CUS | | 9.03% | 82.72% | 6.09% | 1.04% | 0.44% | 0.67% | 0.01% | 0.00% |
| | Test Year | | 46,138 | 4,579 | 37,767 | 2,813 | 456 | 193 | 323 | 5 | 2 |
| | Test Period | | 47,103 | 4,253 | 38,965 | 2,868 | 489 | 206 | 315 | 5 | 2 |
| SCUSTS | Sales Customers | CUS | | 9.09% | 83.33% | 6.03% | 0.86% | 0.19% | 0.51% | 0.00% | 0.00% |
| | Test Year | | 45,810 | 4,579 | 37,767 | 2,765 | 369 | 83 | 247 | - | - |
| | Test Period | | 46,762 | 4,253 | 38,965 | 2,818 | 400 | 88 | 238 | - | - |
| ACUST | Average Customers * 12 | CUS | | 9.03% | 82.72% | 6.09% | 1.04% | 0.44% | 0.67% | 0.01% | 0.00% |
| | Test Year | | 553,656 | 54,948 | 453,204 | 33,756 | 5,472 | 2,316 | 3,876 | 60 | 24 |
| | Test Period | | 565,236 | 51,036 | 467,580 | 34,416 | 5,868 | 2,472 | 3,780 | 60 | 24 |
| MET | Meters | CUS | | 6.30% | 60.25% | 11.65% | 8.59% | 6.85% | 6.21% | 0.00% | 0.15% |
| | Test Year | | 65,828 | 4,579 | 39,404 | 7,709 | 5,403 | 4,329 | 4,299 | - | 104 |
| | Test Period | | 67,479 | 4,253 | 40,654 | 7,860 | 5,795 | 4,621 | 4,192 | - | 104 |
| SERVICE | Services | CUS | | 8.98% | 82.07% | 6.15% | 1.15% | 0.56% | 0.82% | 0.00% | 0.28% |
| | Test Year | | 46,398 | 4,579 | 37,678 | 2,859 | 506 | 249 | 396 | - | 131 |
| | Test Period | | 47,367 | 4,253 | 38,873 | 2,915 | 543 | 265 | 386 | - | 131 |
| REG | Regulators | CUS | | 8.85% | 81.12% | 7.42% | 1.27% | 0.53% | 0.81% | 0.00% | 0.00% |
| | Test Year | | 47,060 | 4,579 | 37,775 | 3,497 | 569 | 240 | 400 | - | - |
| | Test Period | | 48,044 | 4,253 | 38,973 | 3,564 | 610 | 255 | 389 | - | - |
| CMET | Meter Reading | CUS | | 5.38% | 61.77% | 10.36% | 9.84% | 6.06% | 6.55% | 0.00% | 0.04% |
| | Test Year | | 77,088 | 4,579 | 47,372 | 8,038 | 7,260 | 4,490 | 5,315 | - | 34 |
| | Test Period | | 79,118 | 4,253 | 48,874 | 8,195 | 7,785 | 4,793 | 5,183 | - | 34 |

Chesapeake Utilities - Delaware Division

Cost of Service Analysis - Inputs

External Allocators

Test Period at Proposed Revenues

| Name | Description | Classifier | Total | RS-1 | RS-2 | GS | MVS | LVS | HLFS | GLR | IS |
|----------|------------------------------------|------------|-----------|-------|--------|---------|---------|---------|-----------|-------|-------|
| MNR | Industrial M&R | CUS | | 0.00% | 0.07% | 11.21% | 16.83% | 37.60% | 34.07% | 0.00% | 0.23% |
| | Test Year | | 1,707,413 | - | 1,154 | 191,317 | 287,413 | 641,968 | 581,654 | - | 3,906 |
| | Test Period | | 1,707,413 | - | 1,154 | 191,317 | 287,413 | 641,968 | 581,654 | - | 3,906 |
| BADDEBT | Bad Debts | CUS | | 9.38% | 86.06% | 3.37% | 0.57% | 0.24% | 0.38% | 0.00% | 0.00% |
| | Test Year | | 44,368 | 4,579 | 37,774 | 1,500 | 240 | 102 | 173 | - | - |
| | Test Period | | 45,330 | 4,253 | 39,013 | 1,527 | 258 | 109 | 170 | - | - |
| CASSIST | Customer Assistance | CUS | | 9.23% | 84.55% | 6.22% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Test Year | | 45,159 | 4,579 | 37,767 | 2,813 | - | - | - | - | - |
| | Test Period | | 46,086 | 4,253 | 38,965 | 2,868 | - | - | - | - | - |
| CREC | Customer Records | CUS | | 9.03% | 82.72% | 6.09% | 1.04% | 0.44% | 0.67% | 0.01% | 0.00% |
| | Test Year | | 46,138 | 4,579 | 37,767 | 2,813 | 456 | 193 | 323 | 5 | 2 |
| | Test Period | | 47,103 | 4,253 | 38,965 | 2,868 | 489 | 206 | 315 | 5 | 2 |
| CINSTALL | Customer Installations | CUS | | 9.34% | 85.64% | 3.71% | 0.63% | 0.27% | 0.40% | 0.00% | 0.00% |
| | Test Year | | 44,585 | 4,579 | 37,776 | 1,659 | 268 | 111 | 192 | - | - |
| | Test Period | | 45,527 | 4,253 | 38,991 | 1,689 | 286 | 123 | 184 | - | - |
| CUSADV | Customer Advances for Construction | CUS | | 0.00% | 1.24% | 0.00% | 0.00% | 0.00% | 98.76% | 0.00% | 0.00% |
| | Test Year | | 3,221,968 | - | 37,767 | - | - | - | 3,184,201 | - | - |
| | Test Period | | 3,144,300 | - | 38,965 | - | - | - | 3,105,335 | - | - |
| CUSDEP | Customer Deposits | CUS | | 8.66% | 79.30% | 8.90% | 1.52% | 0.64% | 0.97% | 0.00% | 0.00% |
| | Test Year | | 48,149 | 4,579 | 37,792 | 4,295 | 698 | 294 | 491 | - | - |
| | Test Period | | 49,097 | 4,253 | 38,936 | 4,370 | 745 | 315 | 477 | - | - |
| CDD | Commodity Design Day | COM | | 1.29% | 48.31% | 6.36% | 6.90% | 18.72% | 18.43% | 0.00% | 0.00% |
| | Test Year | | 66,338 | 1,023 | 32,809 | 4,052 | 4,348 | 12,053 | 12,053 | - | - |
| | Test Period | | 69,806 | 901 | 33,720 | 4,441 | 4,817 | 13,065 | 12,863 | - | - |

Test Period at Proposed Revenues

[illegible]

Chesapeake Utilities - Delaware Division

Cost of Service Analysis - Inputs

Internal Allocators

| Test Period at Proposed Revenues | | Line Ref. | 4 | 5 | 6 | 7 | 8 | 9 |
|----------------------------------|---------------------------------|--------------|-------------|-------------|--------------|-----------|-------------|--------------|
| | | F_PRODU_SSA | | | | | | |
| Name | Description | Total | F_PRODU_DD | F_DISTR_DD | F_DISTR_PAVG | LES | F_PRODU_CDD | F_DISTR_THRU |
| PD_PLANT | Production & Distribution Plant | 123,281,999 | 4,808,105 | 26,974,711 | 1,256,130 | - | - | - |
| | | | 3.90% | 21.88% | 1.02% | 0.00% | 0.00% | 0.00% |
| DEP | Depreciation Accruals | (34,737,200) | (2,078,125) | (6,891,444) | (552,542) | - | - | - |
| | | | 5.98% | 19.84% | 1.59% | 0.00% | 0.00% | 0.00% |
| DIS_PLANT | Distribution Plant | 118,110,820 | - | 26,892,045 | 1,252,281 | - | - | - |
| | | | 0.00% | 22.77% | 1.06% | 0.00% | 0.00% | 0.00% |
| OM | O & M Expenses | 5,625,697 | 78,179 | 281,944 | 74,118 | - | 29,966 | 61,619 |
| | | | 1.39% | 5.01% | 1.32% | 0.00% | 0.53% | 1.10% |
| LABOR | Labor Expense | 3,700,554 | 8,194 | 167,612 | 51,945 | - | 9,377 | 205,502 |
| | | | 0.22% | 4.53% | 1.40% | 0.00% | 0.25% | 5.55% |
| OMXG | O & M excel Gas | 5,517,552 | - | 281,944 | 74,118 | - | - | 61,619 |
| | | | 0.00% | 5.11% | 1.34% | 0.00% | 0.00% | 1.12% |
| DIS_LABOR | Distribution Labor | 1,165,478 | - | 124,215 | 38,496 | - | - | 152,294 |
| | | | 0.00% | 10.66% | 3.30% | 0.00% | 0.00% | 13.07% |
| MAINS | Mains | 63,275,399 | - | 26,892,045 | - | - | - | - |
| | | | 0.00% | 42.50% | 0.00% | 0.00% | 0.00% | 0.00% |
| M_S | Mains and Services | 96,048,650 | - | 26,892,045 | - | - | - | - |
| | | | 0.00% | 28.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| M_HR | Meter and House Regulators | 19,082,229 | - | - | - | - | - | - |
| | | | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| C_LABOR | Customer Account Labor | 2,180,742 | - | - | - | - | - | - |
| | | | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| BASE | Rate Base | 70,938,750 | 1,525,623 | 16,763,382 | 381,146 | 1,538,611 | 268,661 | (27,933) |
| | | | 2.15% | 23.63% | 0.54% | 2.17% | 0.38% | -0.04% |
| P_PLANT | Production Plant | 4,808,105 | 4,808,105 | - | - | - | - | - |
| | | | 100.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

Test Period at Proposed Revenues

[illegible]

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION
CHESAPEAKE UTILITIES CORPORATION
EXHIBIT JDT-3
FUNCTIONALIZATION AND ALLOCATION FACTOR STUDIES
Witness: John D. Taylor

Docket No. 15-XXX

CHESAPEAKE UTILITIES CORPORATION
EXHIBIT JDT-3
FUNCTIONALIZATION AND ALLOCATION FACTOR STUDIES
– INDEX

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CHESAPEAKE UTILITIES CORPORATION

EXHIBIT JDT-4

DISTRIBUTION MAINS MINIMUM SYSTEM STUDY

The below pages provide the results of the minimum system study used to functionalize Chesapeake's Distribution Mains between the customer and demand classifications. The studies are based on data as of June 30, 2015. The results of these studies were applied to distribution plant data for the test year and the test period in the ACOSS model. The first step in the process was to price adjust the installed costs to get all years of installed mains on a 2015 real dollar basis. The Handy Whitman Index was used to do so, utilizing the Plastic Mains and Steel Mains price adjustment factors for plastic and steel mains on the Chesapeake system. The total inflated investment was then calculated. The total footage was then multiplied by the per foot cost for a minimum sized main, a 2 inch main. The resulting costs of this calculated minimum system was then divided into the total inflated costs to develop the customer related percentage of total costs. The remainder of the system is the demand related portion.

DEVELOPMENT OF ALLOCATORS FOR CUSTOMERS

The first part of this section provides a listing of all the allocators used for the test year/test period and the values associated with each rate class. Details are then provided for the development of the allocation of meter costs and services. A summary of the methods employed to develop these calculations is provided below.

Services (Account 380)

Chesapeake provided a count of services by size for each of the rate classes. Information was gathered on the present replacement cost for each size for an average distance between 120 feet and 170 feet. The multiplication of the replacement costs for services size by the number of service of that size within each rate class resulted in total replacement costs for each rate class. This was then used to develop an average costs per service and ultimately a relative cost factor reflecting the relative cost of providing a service to each of the classes (e.g., 1.00 is RS-1 and 1.29 is HLFS so that it costs 1.29 times the costs of residential for HLFS).

Meters (Account 381)

Chesapeake provided a count of meters by size for each of the rate classes. The average cost for each of these meter sizes was then multiplied by the count resulting in a total costs for each rate class. This was then used to develop an average costs per meter and ultimately a relative cost factor reflecting the relative cost of providing a service to each of the classes (e.g., 1.00 is RS-1 and 15.31 is HLFS so that it costs 15.31 times the costs of residential for HLFS).

Industrial M&R Equipment (Account 385)

An allocation of this plant to the various customer classes was facilitated by research of property records conducted by Chesapeake's personnel to identify specific equipment with individual customers. The remaining M&R equipment in Account No. 385 that could not be identified with individual customers were allocated to the classes based on the assignment of the identifiable M&R equipment costs.

Meter Reading (Account 902)

Through interviews and the review of data it was determined that there is a total of 90 man days in an average month spent on meter reading. Six of these man days are solely spent during one day, Industrial Day, reading certain industrial meters. This information allowed us to allocate 6.67% of effort (6 man days of 90) to those classes read during Industrial Day. The remaining 93.33% of effort was allocated to all other customers and was weighted based on the ratio of Encoder Receiver Transmitter ("ERT" or remote read) to Non-ERT for each class (this takes into account the fact that ERTs are read much quicker than non-ERTs). As a result the total days of effort (for an average) month was calculated for each rate class and ultimately a relative amount of effort (e.g., 1.00 is RS-1 and 16.49 is HLFS so that it takes 16.49 times longer, on average, to read a HLFS meter than a RS-1 meter).

Chesapeake Utilities Corporation
Delaware Division
Analysis of Mains - Account 376
Test Year: Twelve Months Ended June 30, 2015

| Line. No. | Size of Main | Footage | Actual Investment | Inflated Investment | Inflated Investment per Foot |
|-----------|-----------------------------|------------------|---------------------|----------------------|------------------------------|
| 1 | 3/4" Steel | 3,403 | \$11,265 | \$74,816 | \$21.99 |
| 2 | 1 1/4" Steel | 30,600 | \$37,453 | \$446,011 | \$14.58 |
| 3 | 2" Steel | 199,149 | \$655,400 | \$5,599,949 | \$28.12 |
| 4 | 3" Steel | 39,288 | \$78,596 | \$1,005,383 | \$25.59 |
| 5 | 4" Combined | 1,368,293 | \$14,078,790 | \$28,964,112 | \$21.17 |
| 6 | 6" Combined | 906,348 | \$18,028,148 | \$29,643,971 | \$32.71 |
| 7 | 8" Steel | 129,709 | \$5,331,773 | \$6,674,018 | \$51.45 |
| 8 | 10" Steel | 22,180 | \$759,529 | \$922,251 | \$41.58 |
| 9 | 12" Steel | 500 | \$26,784 | \$28,952 | \$57.90 |
| 10 | 2 1/2" Steel | 17,401 | \$13,815 | \$181,502 | \$10.43 |
| 11 | 2" Combined | 99,621 | \$682,691 | \$2,088,094 | \$20.96 |
| 12 | 1 1/4" Plastic | 13,167 | \$116,743 | \$209,741 | \$15.93 |
| 13 | 2" Plastic | 2,419,402 | \$19,987,519 | \$27,344,867 | \$11.30 |
| 14 | 3/4" Plastic | 703 | \$4,449 | \$7,646 | \$10.88 |
| 15 | 1" Plastic | 1,490 | \$7,479 | \$30,836 | \$20.70 |
| 16 | | | | | |
| 17 | Total | 5,251,254 | \$59,820,434 | \$103,222,149 | \$19.66 |
| 18 | | | | | |
| 19 | | | Inflated | Inflated | |
| 20 | Minimum System | Footage | Investment | Invest/ Foot | |
| 21 | 2" Plastic | 2,419,402 | \$27,344,867 | \$11.30 | |
| 22 | | | | | |
| 23 | Minimum System | 5,251,254 | \$59,339,170 | \$11.30 | |
| 24 | Total Inflated Investment | | \$103,222,149 | | |
| 25 | Customer Related Percentage | | 57.49% | | |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis - Inputs

| Line No. | | | Total | Residential Service -1 | Residential Service - 2 | General Service | Medium Volume Service | Large Volume Service | High Load Factor Service | Gas Lighting Residential | Interruptible Service |
|----------|------------------|---------------------------|-----------|---------------------------|----------------------------|--------------------|-----------------------------|----------------------------|--------------------------------|--------------------------------|--------------------------|
| | Name | Description Classifier | | RS-1 | RS-2 | GS | MVS | LVS | HLFS | GLR | IS |
| 1 | DD | Design Day | DEM | | | | | | | | |
| 2 | DD_Test Year | Test Year | 66,338 | 1,023 | 32,809 | 4,052 | 4,348 | 12,053 | 12,053 | - | - |
| 3 | DD_Test Period | Test Period | 69,806 | 901 | 33,720 | 4,441 | 4,817 | 13,065 | 12,863 | - | - |
| 4 | PAVG | Peak and Average | DEM | | | | | | | | |
| 5 | PAVG_Test Year | Test Year | 4,050,955 | 42,817 | 1,384,494 | 163,808 | 187,405 | 640,824 | 1,595,217 | 42 | 36,350 |
| 6 | PAVG_Test Period | Test Period | 3,916,790 | 29,051 | 1,285,437 | 141,552 | 179,227 | 813,460 | 1,431,672 | 42 | 36,350 |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis - Inputs

Line No.

| Name | Description Classifier | Total | Residential Service -1 | Residential Service - 2 | General Service | Medium Volume Service | Large Volume Service | High Load Factor Service | Gas Lighting Residential | Interruptible Service |
|------|---------------------------|-------|---------------------------|----------------------------|--------------------|-----------------------------|----------------------------|--------------------------------|--------------------------------|--------------------------|
| | | | RS-1 | RS-2 | GS | MVS | LVS | HLFS | GLR | IS |

CUSTOMER ALLOCATORS

| | | | | | | | | | | | | |
|----|---------------------|---------------------------|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------|---------------|-----|
| 7 | CUST | Average Customers | CUS | | | | | | | | | |
| 8 | CUST_Test Year | Test Year | | 46,138 | 4,579 | 37,767 | 2,813 | 456 | 193 | 323 | 5 | 2 |
| 9 | CUST_Test Period | Test Period | | 47,103 | 4,253 | 38,965 | 2,868 | 489 | 206 | 315 | 5 | 2 |
| 10 | SCUSTS | Sales Customers | CUS | | | | | | | | | |
| 11 | SCUSTS_Test Year | Test Year | | 45,810 | 4,579 | 37,767 | 2,765 | 369 | 83 | 247 | - | - |
| 12 | SCUSTS_Test Period | Test Period | | 46,762 | 4,253 | 38,965 | 2,818 | 400 | 88 | 238 | - | - |
| 13 | ACUST | Average Customers * 12 | CUS | | | | | | | | | |
| 14 | ACUST_Test Year | Test Year | | 553,656 | 54,948 | 453,204 | 33,756 | 5,472 | 2,316 | 3,876 | 60 | 24 |
| 15 | ACUST_Test Period | Test Period | | 565,236 | 51,036 | 467,580 | 34,416 | 5,868 | 2,472 | 3,780 | 60 | 24 |
| 16 | MET | Meters | CUS | | | | | | | | | |
| 17 | | Meter Cost Per Meter | | \$ 67.07 | \$ 69.98 | \$ 183.81 | \$ 794.80 | \$ 1,504.46 | \$ 892.69 | \$ - | \$ 3,495.79 | |
| 18 | | Relative Weighting Factor | | 1.00 | 1.04 | 2.74 | 11.85 | 22.43 | 13.31 | - | 52.12 | |
| 19 | MET_Test Year | Test Year | Weighted Customers | 65,828 | 4,579 | 39,404 | 7,709 | 5,403 | 4,329 | 4,299 | - | 104 |
| 20 | MET_Test Period | Test Period | Weighted Customers | 67,479 | 4,253 | 40,654 | 7,860 | 5,795 | 4,621 | 4,192 | - | 104 |
| 21 | SERVICE | Services | CUS | | | | | | | | | |
| 22 | | Service Cost per Service | | \$ 2,858.69 | \$ 2,851.97 | \$ 2,905.36 | \$ 3,171.57 | \$ 3,683.96 | \$ 3,506.63 | \$ - | \$ 187,425.00 | |
| 23 | | Relative Weighting Factor | | 1.00 | 1.00 | 1.02 | 1.11 | 1.29 | 1.23 | - | 65.56 | |
| 24 | SERVICE_Test Year | Test Year | Weighted Customers | 46,398 | 4,579 | 37,678 | 2,859 | 506 | 249 | 396 | - | 131 |
| 25 | SERVICE_Test Period | Test Period | Weighted Customers | 47,367 | 4,253 | 38,873 | 2,915 | 543 | 265 | 386 | - | 131 |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis - Inputs

| Line No. | Name | Description Classifier | Total | Residential Service - 1 | Residential Service - 2 | General Service | Medium Volume Service | Large Volume Service | High Load Factor Service | Gas Lighting Residential | Interruptible Service |
|----------|---------------------|-------------------------------|-----------------------|----------------------------|----------------------------|--------------------|-----------------------------|----------------------------|--------------------------------|--------------------------------|--------------------------|
| | | | | RS-1 | RS-2 | GS | MVS | LVS | HLFS | GLR | IS |
| 21 | REG | Regulators | CUS | | | | | | | | |
| 26 | | House Regulators Per Customer | Test Year | \$ 44.93 | \$ 44.94 | \$ 55.84 | \$ 56.10 | \$ 55.87 | \$ 55.64 | \$ - | \$ - |
| 27 | | Relative Weighting Factor | Test Year | 1.00 | 1.00 | 1.24 | 1.25 | 1.24 | 1.24 | - | - |
| 28 | | House Regulators Per Customer | Test Period | \$ 44.68 | \$ 44.69 | \$ 55.52 | \$ 55.69 | \$ 55.32 | \$ 55.22 | \$ - | \$ - |
| 29 | | Relative Weighting Factor | Test Period | 1.00 | 1.00 | 1.24 | 1.25 | 1.24 | 1.24 | - | - |
| 30 | REG_Test Year | Test Year | Weighted Customers | 47,060 | 4,579 | 37,775 | 3,497 | 569 | 240 | 400 | - |
| 31 | REG_Test Period | Test Period | Weighted Customers | 48,044 | 4,253 | 38,973 | 3,564 | 610 | 255 | 389 | - |
| 32 | CMET | Meter Reading | CUS | | | | | | | | |
| | | Weighting Factor | | 1.00 | 1.25 | 2.86 | 15.92 | 23.26 | 16.46 | - | 16.87 |
| 33 | CMET_Test Year | Test Year | | 77,088 | 4,579 | 47,372 | 8,038 | 7,260 | 4,490 | 5,315 | - |
| 34 | CMET_Test Period | Test Period | | 79,118 | 4,253 | 48,874 | 8,195 | 7,785 | 4,793 | 5,183 | - |
| 35 | MNR | Industrial M&R | CUS | | | | | | | | |
| 36 | MNR_Test Year | Test Year | | 1,707,413 | - | 1,154 | 191,317 | 287,413 | 641,968 | 581,654 | - |
| 37 | MNR_Test Period | Test Period | | 1,707,413 | - | 1,154 | 191,317 | 287,413 | 641,968 | 581,654 | - |
| 38 | BADDEBT | Bad Debts | CUS | | | | | | | | |
| 39 | | Bad Debt Per Customer | Test Year | \$ 3.23 | \$ 3.23 | \$ 1.72 | \$ 1.70 | \$ 1.70 | \$ 1.73 | \$ - | \$ - |
| 40 | | Relative Weighting Factor | Test Year | 1.00 | 1.00 | 0.53 | 0.53 | 0.53 | 0.54 | - | - |
| 41 | | Bad Debt Per Customer | Test Period | \$ 3.20 | \$ 3.20 | \$ 1.70 | \$ 1.69 | \$ 1.69 | \$ 1.73 | \$ - | \$ - |
| 42 | | Relative Weighting Factor | Test Period | 1.00 | 1.00 | 0.53 | 0.53 | 0.53 | 0.54 | - | - |
| 43 | BADDEBT_Test Year | Test Year | Weighted Customers | 44,368 | 4,579 | 37,774 | 1,500 | 240 | 102 | 173 | - |
| 44 | BADDEBT_Test Period | Test Period | Weighted Customers | 45,330 | 4,253 | 39,013 | 1,527 | 258 | 109 | 170 | - |
| 45 | CASSIST | Customer Assistance | CUS | | | | | | | | |
| | | Weighting Factor | | 1.00 | 1.00 | 1.00 | - | - | - | - | - |
| 46 | CASSIST_Test Year | Test Year | | 45,159 | 4,579 | 37,767 | 2,813 | - | - | - | - |
| 47 | CASSIST_Test Period | Test Period | | 46,086 | 4,253 | 38,965 | 2,868 | - | - | - | - |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis - Inputs

| Line No. | Name | Description Classifier | Total | Residential Service - 1 | Residential Service - 2 | General Service | Medium Volume Service | Large Volume Service | High Load Factor Service | Gas Lighting Residential | Interruptible Service |
|----------|----------------------|------------------------------------|-------------|----------------------------|----------------------------|--------------------|-----------------------------|----------------------------|--------------------------------|--------------------------------|--------------------------|
| | | | | RS-1 | RS-2 | GS | MVS | LVS | HLFS | GLR | IS |
| 48 | CREC | Customer Records | CUS | | | | | | | | |
| | | Weighting Factor | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 49 | CREC_Test Year | Test Year | 46,138 | 4,579 | 37,767 | 2,813 | 456 | 193 | 323 | 5 | 2 |
| 50 | CREC_Test Period | Test Period | 47,103 | 4,253 | 38,965 | 2,868 | 489 | 206 | 315 | 5 | 2 |
| 51 | CINSTALL | Customer Installations | CUS | | | | | | | | |
| 52 | | Customer Installs Per Customer | Test Year | \$ 1.32 | \$ 1.32 | \$ 0.78 | \$ 0.77 | \$ 0.76 | \$ 0.78 | \$ - | \$ - |
| 53 | | Relative Weighting Factor | Test Year | 1.00 | 1.00 | 0.59 | 0.59 | 0.58 | 0.59 | - | - |
| 54 | | Customer Installs Per Customer | Test Period | \$ 1.35 | \$ 1.35 | \$ 0.80 | \$ 0.79 | \$ 0.81 | \$ 0.79 | \$ - | \$ - |
| 55 | | Relative Weighting Factor | Test Period | 1.00 | 1.00 | 0.59 | 0.59 | 0.60 | 0.58 | - | - |
| 56 | CINSTALL_Test Year | Test Year | 44,585 | 4,579 | 37,776 | 1,659 | 268 | 111 | 192 | - | - |
| 57 | CINSTALL_Test Period | Test Period | 45,527 | 4,253 | 38,991 | 1,689 | 286 | 123 | 184 | - | - |
| 58 | CUSADV | Customer Advances for Construction | CUS | | | | | | | | |
| 59 | | Customer Advances per Customer | Test Year | \$ - | \$ 0.04 | \$ - | \$ - | \$ - | \$ 442.96 | \$ - | \$ - |
| 60 | | Weighting Factor | | - | 1.00 | - | - | - | 9,856.21 | - | - |
| 61 | CUSADV_Test Year | Test Year | 3,221,968 | - | 37,767 | - | - | - | 3,184,201 | - | - |
| 62 | CUSADV_Test Period | Test Period | 3,144,300 | - | 38,965 | - | - | - | 3,105,335 | - | - |
| 63 | CUSDEP | Customer Deposits | CUS | | | | | | | | |
| 64 | | Customer Deposits Per Customer | Test Year | \$ 53.45 | \$ 53.49 | \$ 81.61 | \$ 81.84 | \$ 81.34 | \$ 81.28 | \$ - | \$ - |
| 65 | | Relative Weighting Factor | Test Year | 1.00 | 1.00 | 1.53 | 1.53 | 1.52 | 1.52 | - | - |
| 66 | | Customer Deposits Per Customer | Test Period | \$ 34.65 | \$ 34.62 | \$ 52.80 | \$ 52.82 | \$ 52.94 | \$ 52.52 | \$ - | \$ - |
| 67 | | Relative Weighting Factor | Test Period | 1.00 | 1.00 | 1.52 | 1.52 | 1.53 | 1.52 | - | - |
| 68 | CUSDEP_Test Year | Test Year | 48,149 | 4,579 | 37,792 | 4,295 | 698 | 294 | 491 | - | - |
| 69 | CUSDEP_Test Period | Test Period | 49,097 | 4,253 | 38,936 | 4,370 | 745 | 315 | 477 | - | - |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis - Inputs

Line No.

| Name | Description Classifier | Total | Residential Service -1 | Residential Service - 2 | General Service | Medium Volume Service | Large Volume Service | High Load Factor Service | Gas Lighting Residential | Interruptible Service |
|------|---------------------------|-------|---------------------------|----------------------------|--------------------|-----------------------------|----------------------------|--------------------------------|--------------------------------|--------------------------|
| | | | RS-1 | RS-2 | GS | MVS | LVS | HLFS | GLR | IS |

COMMODITY ALLOCATORS

| | | | | | | | | | | | | |
|----|--------------------|--------------------------|-----|-----------|--------|-----------|---------|---------|-----------|-----------|----|--------|
| 70 | CDD | Commodity Design Day | COM | | | | | | | | | |
| 71 | CDD_Test Year | Test Year | | 66,338 | 1,023 | 32,809 | 4,052 | 4,348 | 12,053 | 12,053 | - | - |
| 72 | CDD_Test Period | Test Period | | 69,806 | 901 | 33,720 | 4,441 | 4,817 | 13,065 | 12,863 | - | - |
| 73 | SALES | Sales Mcf | COM | | | | | | | | | |
| 74 | SALES_Test Year | Test Year | | 3,932,518 | 84,611 | 2,736,178 | 313,409 | 300,358 | 235,633 | 262,245 | 84 | - |
| 75 | SALES_Test Period | Test Period | | 3,637,221 | 57,200 | 2,537,154 | 269,796 | 284,167 | 235,908 | 252,912 | 84 | - |
| 76 | SSALES | Sales Seasonal Mcf | COM | | | | | | | | | |
| 77 | SSALES_Test Year | Test Year | | 2,986,366 | 65,807 | 2,146,523 | 251,664 | 235,973 | 162,077 | 124,287 | 35 | - |
| 78 | SSALES_Test Period | Test Period | | 2,685,918 | 41,916 | 1,939,344 | 210,026 | 215,134 | 158,913 | 120,550 | 35 | - |
| 79 | THRU | Transportation and Sales | COM | | | | | | | | | |
| 80 | THRU_Test Year | Test Year | | 8,035,573 | 84,611 | 2,736,178 | 323,565 | 370,461 | 1,269,594 | 3,178,382 | 84 | 72,699 |
| 81 | THRU_Test Period | Test Period | | 7,763,775 | 57,200 | 2,537,154 | 278,664 | 353,638 | 1,613,856 | 2,850,480 | 84 | 72,699 |

Chesapeake Utilities - Delaware Division
Cost of Service Analysis - Inputs

| Line No. | | | | Residential Service -1 | Residential Service - 2 | General Service | Medium Volume Service | Large Volume Service | High Load Factor Service | Gas Lighting Residential | Interruptible Service | |
|--------------------|--------------------------|------------------------|-------|------------------------|-------------------------|-----------------|-----------------------|----------------------|--------------------------|--------------------------|-----------------------|---------|
| | Name | Description Classifier | Total | RS-1 | RS-2 | GS | MVS | LVS | HLFS | GLR | IS | |
| REVENUE ALLOCATORS | | | | | | | | | | | | |
| 82 | REV_BASE | Delivery Revenue | REV | | | | | | | | | |
| 83 | REV_BASE_Test Year | Test Year | | 23,201,048 | 985,967 | 14,106,715 | 1,531,552 | 885,978 | 1,780,878 | 3,746,615 | 707 | 162,637 |
| 84 | REV_BASE_Test Period | Test Period | | 22,223,119 | 824,887 | 13,899,066 | 1,469,623 | 890,630 | 2,114,684 | 2,860,887 | 705 | 162,637 |
| 85 | REV_OTHER | Other Revenue | REV | | | | | | | | | |
| 86 | REV_OTHER_Test Year | Test Year | | 455,545 | 58,567 | 366,508 | 25,704 | 1,680 | 622 | 2,464 | - | - |
| 87 | REV_OTHER_Test Period | Test Period | | 455,545 | 58,567 | 366,508 | 25,704 | 1,680 | 622 | 2,464 | - | - |
| 88 | REV_UNBILLED | Bad Debt | REV | | | | | | | | | |
| 89 | REV_UNBILLED_Test Year | Test Year | | 44,368 | 4,579 | 37,774 | 1,500 | 240 | 102 | 173 | - | - |
| 90 | REV_UNBILLED_Test Period | Test Period | | 45,330 | 4,253 | 39,013 | 1,527 | 258 | 109 | 170 | - | - |
| 91 | REV_RENT | Rate Base | REV | | | | | | | | | |
| 92 | REV_RENT_Test Year | Test Year | | 65,854,598 | 4,477,783 | 44,685,470 | 4,748,331 | 2,778,716 | 4,547,753 | 4,552,375 | 2,400 | 61,770 |
| 93 | REV_RENT_Test Period | Test Period | | 70,938,750 | 4,392,927 | 48,316,146 | 5,155,528 | 3,086,925 | 4,995,536 | 4,924,340 | 2,447 | 64,902 |
| 94 | REV_THRU | Throughput | REV | | | | | | | | | |
| 95 | REV_THRU_Test Year | Test Year | | 8,035,573 | 84,611 | 2,736,178 | 323,565 | 370,461 | 1,269,594 | 3,178,382 | 84 | 72,699 |
| 96 | REV_THRU_Test Period | Test Period | | 7,763,775 | 57,200 | 2,537,154 | 278,664 | 353,638 | 1,613,856 | 2,850,480 | 84 | 72,699 |

**Chesapeake Utilities Corporation
Delaware Division
Analysis of Services - Account 380
Twelve Months Ended June 30, 2015**

| Service Size | Replacement Cost | RS-1 | RS-2 | GS | MVS | LVS | HLFS | IS * | Grand Total |
|--------------|------------------|--------------|---------------|--------------|------------|------------|------------|------------|-------------|
| 0.25 | \$ 2,850 | | 4 | | | | 1 | | 5 |
| 0.5 | \$ 2,850 | 132 | 503 | 14 | 1 | | | | 650 |
| 0.75 | \$ 2,850 | 2,802 | 32,991 | 1,627 | 174 | 39 | 101 | 1 | 37735 |
| 1 | \$ 2,950 | 7 | 46 | 5 | 1 | | 4 | | 63 |
| 1.25 | \$ 2,950 | 197 | 321 | 320 | 98 | 43 | 51 | | 1030 |
| 1.5 | \$ 2,950 | | | 1 | | | | | 1 |
| 1.75 | \$ 2,950 | | 1 | | | | | | 1 |
| 2 | \$ 6,300 | 2 | 11 | 20 | 25 | 23 | 13 | | 94 |
| 2.5 | \$ 6,300 | | 1 | | | | | | 1 |
| 3 | \$ 7,600 | | | | | 1 | | | 1 |
| 4 | \$ 8,900 | | | | | | 9 | | 9 |
| 6 | \$ 11,300 | | | 1 | | | 2 | | 3 |
| Grand Total | | 3,140 | 33,878 | 1,988 | 299 | 106 | 181 | 2 | 39,593 |
| | Total Cost | \$ 8,976,300 | \$ 96,619,100 | \$ 5,775,850 | \$ 948,300 | \$ 390,500 | \$ 634,700 | \$ 374,850 | |
| | Average Cost | \$ 2,859 | \$ 2,852 | \$ 2,905 | \$ 3,172 | \$ 3,684 | \$ 3,507 | \$ 187,425 | |
| | Relative Cost | 1.00 | 1.00 | 1.02 | 1.11 | 1.29 | 1.23 | 65.56 | |

| 5100 feet of 6 inch | |
|---------------------|------------|
| 6 inch at 170 | \$ 12,400 |
| Cost Per Foot | \$ 72.94 |
| Feet | 5,100 |
| Total Cost | \$ 372,000 |

* One of the two IS customer has 6 inch service at 5100 feet.

Chesapeake Utilities Corporation
Delaware Division
Analysis of Meters - Account 381
Twelve Months Ended June 30, 2015

| VENDOR NAME | METER SIZE | Count | Investment | Average Cost | RS-1 | RS-2 | GS | MVS | LVS | HLFS | IS | Grand Total |
|-------------------|------------|--------|--------------|--------------|-------|--------|-------|-----|-----|------|----|-------------|
| AMERICAN METER CO | 250 | 27,971 | \$ 2,021,600 | \$ 72 | 2,620 | 19,365 | 1,222 | 7 | | 3 | | 23,217 |
| AMERICAN METER CO | 425 | 850 | 199,491 | 235 | 11 | 348 | 255 | 45 | 1 | 12 | | 672 |
| AMERICAN METER CO | 630 | 521 | 226,910 | 436 | 2 | 154 | 126 | 48 | 2 | 22 | | 354 |
| AMERICAN METER CO | 800 | 388 | 332,445 | 857 | 1 | 43 | 84 | 48 | 5 | 38 | | 219 |
| AMERICAN METER CO | 1000 | 190 | 153,523 | 808 | | 9 | 45 | 50 | 1 | 28 | | 133 |
| AMERICAN METER CO | 1400 | 82 | 89,444 | 1,091 | | 2 | 11 | 16 | 5 | 8 | | 42 |
| AMERICAN METER CO | 1.5M | 11 | 10,006 | 910 | | | 1 | 1 | 1 | 1 | | 4 |
| AMERICAN METER CO | 3.5M | 15 | 12,536 | 836 | | | 1 | | 1 | | | 2 |
| AMERICAN METER CO | 5.5m | 11 | 16,167 | 1,470 | | | | | 1 | | | 1 |
| AMERICAN METER CO | 5B | 3,355 | 103,355 | 31 | 124 | 1,157 | 51 | | | | | 1,332 |
| AMERICAN METER CO | GT4 [1] | | | 5,660 | | | 1 | | | | | 1 |
| AMERICAN METER CO | GT6 [2] | | | 4,857 | | | | | 1 | | | 1 |
| EQUIMETER | 275 | 2,467 | 197,813 | 80 | 285 | 2,034 | 118 | 1 | | 1 | | 2,439 |
| EQUIMETER | TB18 | 2 | 1,776 | 888 | | | | | 2 | | | 2 |
| METRIS | 250 | 6,296 | 334,027 | 53 | 411 | 3,814 | 134 | | | 1 | | 4,360 |
| ROCKWELL | 250 | 429 | 22,189 | 52 | 42 | 492 | 16 | | | | | 550 |
| ROCKWELL | 275 | 18,256 | 1,059,704 | 58 | 1,224 | 11,949 | 602 | 5 | | 3 | | 13,783 |
| ROCKWELL | 415 | 427 | 71,042 | 166 | 4 | 183 | 124 | 12 | | 7 | | 330 |
| ROCKWELL | 750 | 250 | 120,900 | 484 | | 16 | 41 | 12 | | 6 | | 75 |
| ROCKWELL | 1000 | 21 | 18,676 | 889 | | | 6 | 6 | 1 | 6 | | 19 |
| ROCKWELL | 3000 | 4 | 3,645 | 911 | | | 1 | | | | | 1 |

Chesapeake Utilities Corporation
Delaware Division
Analysis of Meters - Account 381
Twelve Months Ended June 30, 2015

| VENDOR NAME | METER SIZE | Count | Investment | Average Cost | RS-1 | RS-2 | GS | MVS | LVS | HLFS | IS | Grand Total |
|-------------------|------------|--------|------------|---------------|------------|--------------|------------|------------|-------------|------------|-------------|-------------|
| ROOTS-CONNERVILLE | 1.5M | 63 | 48,143 | 764 | | | 18 | 36 | 7 | 26 | | 87 |
| ROOTS-CONNERVILLE | 11m | 52 | 104,440 | 2,008 | | | 1 | 1 | 19 | 4 | | 25 |
| ROOTS-CONNERVILLE | 15c | 223 | 218,833 | 981 | | | 30 | 53 | 10 | 18 | | 111 |
| ROOTS-CONNERVILLE | 16M | 46 | 129,510 | 2,815 | | | 1 | 1 | 18 | | 2 | 22 |
| ROOTS-CONNERVILLE | 2m | 34 | 43,257 | 1,272 | | 1 | 4 | 9 | 2 | 4 | | 20 |
| ROOTS-CONNERVILLE | 3M | 370 | 383,436 | 1,036 | | | 23 | 95 | 79 | 49 | | 246 |
| ROOTS-CONNERVILLE | 5m | 185 | 243,512 | 1,316 | | 1 | 9 | 24 | 64 | 17 | | 115 |
| ROOTS-CONNERVILLE | 7m | 66 | 126,400 | 1,915 | | | | 2 | 40 | 2 | | 44 |
| ROOTS-CONNERVILLE | 8c | 23 | 22,715 | 988 | | 1 | 17 | 4 | | 2 | | 24 |
| SENSYS | 275 [3] | | | 69 | 29 | 144 | 17 | | | | | 190 |
| SENSYS | T27 | 2 | 10,889 | 5,444 | | | | | 1 | | | 1 |
| SENSYS | T35 | 1 | 4,857 | 4,857 | | | | | 2 | 1 | 1 | 4 |
| SENSYS | t57 | 2 | 16,662 | 8,331 | | | | | 1 | 1 | | 2 |
| SENSYS | T90 | 8 | 28,338 | 3,542 | | | | | 1 | 1 | | 2 |
| SONIX | 215 | 120 | 23,264 | 194 | 6 | | 40 | | | | | 46 |
| SONIX | 600 | 40 | 23,550 | 589 | | 20 | 3 | 1 | | | | 24 |
| SONIX | 880 | 38 | \$ 24,452 | \$ 643 | | 4 | 9 | 3 | | 2 | | 18 |
| Grand Total | | 62,819 | | Count | 4,759 | 39,737 | 3,011 | 480 | 265 | 263 | 3 | 48,518 |
| | | | | Total Cost | \$ 319,202 | \$ 2,780,840 | \$ 553,466 | \$ 381,504 | \$ 398,682 | \$ 234,777 | \$ 10,487 | |
| | | | | Average Cost | \$ 67.07 | \$ 69.98 | \$ 183.81 | \$ 794.80 | \$ 1,504.46 | \$ 892.69 | \$ 3,495.79 | |
| | | | | Relative Cost | 1.00 | 1.04 | 2.74 | 11.85 | 22.43 | 13.31 | 52.12 | |

Notes
 [1] Assumed replacement with T18 meter
 [2] Assumed replacement with T35 meter
 [3] Used average of other 275s

Chesapeake Utilities Corporation
Delaware Division
Analysis of Industrial M&R - Account 385
Twelve Months Ended June 30, 2015

| Row Labels | Test Year Industrial M&R |
|--------------------|---|
| RS-1 | \$ - |
| RS-2 | \$ 1,154 |
| GS | \$ 191,317 |
| MVS | \$ 287,413 |
| LVS | \$ 641,968 |
| HLFS | \$ 581,654 |
| GLR | \$ - |
| IS | \$ 3,906 |
| Grand Total | \$ 1,707,413 |

The above table represents the total invested plant that was determined to directly serve individual customers, summed by rate class.

Chesapeake Utilities Corporation
Delaware Division
Analysis of Meter Reading - Account 902
Twelve Months Ended June 30, 2015

| Rate Classes | ERT Meter Count | Non-ERT Meter Count | Total Meter Count | ERT Read on Industrial Day (Count) | Non ERT Read on Industrial Day (Count) | Read on Industrial Day (Count) | Read on Industrial Day (%) |
|--------------------|-----------------|---------------------|-------------------|------------------------------------|--|--------------------------------|----------------------------|
| RS-1 | 4130 | 655 | 4,785 | - | 1 | 1 | 0.34% |
| RS-2 | 33516 | 6677 | 40,193 | 1 | - | 1 | 0.34% |
| GS | 2297 | 722 | 3,019 | 118 | 88 | 206 | 69.36% |
| MVS | 143 | 340 | 483 | 56 | 128 | 184 | 61.95% |
| LVS | 13 | 190 | 203 | 10 | 162 | 172 | 57.91% |
| HLFS | 75 | 258 | 333 | 16 | 106 | 122 | 41.08% |
| IS | | 3 | 3 | - | 3 | 3 | 1.01% |
| Grand Total | 40,174 | 8,845 | 49,019 | 201 | 488 | 297 | 100.00% |

| | |
|-----------------------------------|----|
| Man Days Reading Industrial | 6 |
| Man Days Reading All Other Meters | 84 |
| Total | 90 |

| Rate Classes | Read on Industrial Day (Days of Effort) | Not Read on Industrial Day (Count) | ERT (Not Read on Industrial Day) | Non-ERT (Not Read on Industrial Day) | Non-ERT to ERT Ratio | Ratio Weighted Customer Count |
|--------------------|---|------------------------------------|----------------------------------|--------------------------------------|----------------------|-------------------------------|
| RS-1 | 0.02 | 4,784 | 4,130 | 654 | 0.16 | 758 |
| RS-2 | 0.02 | 40,192 | 33,515 | 6,677 | 0.20 | 8,007 |
| GS | 4.16 | 2,813 | 2,179 | 634 | 0.29 | 818 |
| MVS | 3.72 | 299 | 87 | 212 | 2.44 | 729 |
| LVS | 3.47 | 31 | 3 | 28 | 9.33 | 289 |
| HLFS | 2.46 | 211 | 59 | 152 | 2.58 | 544 |
| IS | 0.06 | - | - | - | 1.00 | - |
| Grand Total | 6.00 | 48,330 | 39,973 | 8,357 | | 11,145 |

| Rate Classes | Not Read on Industrial Day (%) | Not Read on Industrial Day (Days of Effort) | Total Days of Effort | Days of Effort per Meter | Relative Effort to Read |
|--------------------|-----------------------------------|---|-------------------------|-----------------------------|----------------------------|
| RS-1 | 6.80% | 5.71 | 5.73 | 0.0012 | 1.00 |
| RS-2 | 71.85% | 60.35 | 60.37 | 0.0015 | 1.25 |
| GS | 7.34% | 6.17 | 10.33 | 0.0034 | 2.86 |
| MVS | 6.54% | 5.49 | 9.21 | 0.0191 | 15.92 |
| LVS | 2.60% | 2.18 | 5.66 | 0.0279 | 23.26 |
| HLFS | 4.88% | 4.10 | 6.56 | 0.0197 | 16.46 |
| IS | 0.00% | - | 0.06 | 0.0202 | 16.87 |
| Grand Total | 7.47% | 84 | 98 | | |

BEFORE THE DELAWARE PUBLIC SERVICE COMMISSION

| | |
|---------------------------------------|-----------------------|
| IN THE MATTER OF THE APPLICATION OF) | |
| CHESAPEAKE UTILITIES CORPORATION) | |
| FOR AN INCREASE IN ITS NATURAL GAS) | PSC Docket No. 15-XXX |
| RATES AND SERVICES AND FOR CERTAIN) | |
| OTHER CHANGES TO ITS NATURAL GAS) | |
| TARIFF (FILED December 21, 2015)) | |

DIRECT TESTIMONY OF RONALD J. AMEN

On Behalf of Chesapeake Utilities Corporation

Delaware Division

Submitted for filing: December 21, 2015

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1 **I. Introduction**

2
3 **Q. Please state your name and business address.**

4 A. My name is Ronald J. Amen. My business address is 17806 NE 109th Court,
5 Redmond, WA 98052.

6 **Q. By whom are you employed and in what capacity?**

7 A. I am employed by Black & Veatch Corporation ("Black & Veatch") as a Director in
8 the Finance & Regulatory Services Practice of Black & Veatch's Management
9 Consulting group. Black & Veatch is a leading nationwide provider of consulting
10 services to electric and gas utilities and other energy-related and network
11 businesses.

12 **Q. Please describe the firm of Black & Veatch.**

13 A. Black & Veatch has provided comprehensive engineering and management
14 services to utility, industrial, and governmental entities since 1915. Its
15 Management Consulting Division delivers management consulting solutions in
16 the energy and water sectors. Our services include broad-based strategic,
17 regulatory, financial, and information systems consulting. In the energy sector,
18 Black & Veatch Management Consulting delivers a variety of services for
19 companies involved in the generation, transmission, and distribution of electricity
20 and natural gas. From an industry-wide perspective, Black & Veatch has
21 extensive experience in all aspects of the North American natural gas industry,
22 including utility costing and pricing, gas supply and transportation planning,
23 competitive market analysis and regulatory practices and policies gained through
24 management and operating responsibilities at gas distribution, pipeline and other

1 energy-related companies, and through a wide variety of client assignments.
2 Black & Veatch has assisted numerous gas distribution companies located in the
3 U.S. and Canada.

4 **Q. What has been the nature of your work in the utility consulting field?**

5 A. I have over thirty-seven (37) years of experience in the utility industry, the last
6 eighteen (18) years of which have been in the field of utility management and
7 economic consulting. Specializing in the gas industry, I have advised and
8 assisted utility management, industry trade organizations and large energy users
9 in matters pertaining to costing and pricing, competitive market analysis,
10 regulatory planning and policy development, gas resource planning issues,
11 strategic business planning, organizational restructuring, new business
12 development, and load research studies. Further background information
13 summarizing my work experience, presentation of expert testimony, and other
14 industry-related activities is included as Appendix A.

15 **Q. Mr. Amen, have you previously testified before this Commission or any**
16 **other regulatory authority?**

17 A. Yes. I have presented expert testimony before the Federal Energy Regulatory
18 Commission ("FERC") and numerous state and provincial regulatory
19 commissions, including the Delaware Public Service Commission (the
20 "Commission"). My expert testimony has dealt with the costing and pricing of
21 energy-related products and services for gas and electric distribution and gas
22 pipeline companies.

23 In addition to traditional utility costing and rate design concepts and
24 issues, my testimony has addressed revenue decoupling concepts and other

1 innovative ratemaking approaches, gas transportation rates, gas supply planning
2 issues and activities, market-based rates, Performance-Based Regulation
3 (“PBR”) concepts and plans, competitive market analysis, gas merchant service
4 issues, market power assessment, multi-jurisdictional utility cost allocation
5 issues, inter-affiliate cost separation and transfer pricing issues, seasonal rates,
6 time-of-use rates, and pipeline ratemaking issues.

7 **Q. For what purpose has Black & Veatch been retained by Chesapeake**
8 **Utilities Corporation’s Delaware Division (“Chesapeake” or the**
9 **“Company”)?**

10 A. Black & Veatch has been retained by Chesapeake as a consultant in the area of
11 utility costing and rate design and related regulatory matters. Among the varied
12 consulting support for Chesapeake’s general rate case, Chesapeake has
13 requested that we assist the Company by conducting a cost of service study,
14 used to determine the embedded costs of serving the Company’s customers. In
15 addition, we have performed various statistical, costing and pricing analyses
16 related to the provision of gas distribution services on Chesapeake’s system. We
17 also provided analysis to the Company on the various forms of revenue
18 decoupling mechanisms utilized by the utilities industry in order to determine the
19 mechanism most appropriate to Chesapeake’s Delaware Division.

20 **II. Purpose of Testimony**

21 **Q. What is the purpose of your direct testimony in this docket?**

22 A. First, I will be supporting the level of revenue responsibility between customer
23 classes as a result of the revenue requirement proposed by Chesapeake in this
24 proceeding and as supported by the Allocated Cost of Service Study (ACOSS). I

1 will discuss the use of cost of service results as a guide to be incorporated into
2 the rate design process. Because the results of the ACOSS suggest shifts in
3 revenue responsibility between customer classes, I will discuss proposed
4 changes in the rates of the Company's rate schedules that reflect the ACOSS
5 results.

6 Second, I will discuss the Company's proposals for changes to the various
7 rate components, in particular, the monthly customer charges for Residential and
8 General Service customers.

9 Finally, I will present and discuss, from an industry-wide and utility-specific
10 perspective, the reasons that support the ratemaking proposals presented in this
11 proceeding by Chesapeake. Specifically, my testimony will discuss: (1) the
12 business conditions and key challenges facing both regulators and the gas
13 distribution utility industry today; (2) how these challenges have led regulators,
14 utilities, and other key stakeholders to explore and implement innovative
15 ratemaking approaches for gas distribution utilities; (3) the nature of these
16 innovative approaches to rate design for gas distribution utilities; (4) the specific
17 industry-wide activities that are occurring with regard to revenue decoupling
18 mechanisms; (5) conceptual support for the implementation of revenue
19 decoupling mechanisms by gas distribution utilities such as Chesapeake; and (6)
20 the specific decoupling proposal by Chesapeake in this proceeding.

21 **Q. Are you sponsoring any attachments to your testimony?**

22 **A.** Yes.

23 Exhibit RJA-1 – Rate Apportionment

24 Exhibit RJA-2 – Rate Design

25 Exhibit RJA-3 – Average Monthly Bill Impacts for Residential and General
26 Service Customers

Exhibit RJA-4 – Typical Bill Impacts at Various Consumption Levels
Exhibit RJA-5 – AGA Customer Charge Table
Exhibit RJA-6 – Map of Rate Recovery Mechanisms and Table
Exhibit RJA-7 – Historical Data – Use per Customer, Margin per Customer, and
Operating Income
Exhibit RJA-8 – Rate Normalization Mechanism Example
Exhibit RJA-9 – Summary of Rate Normalization Simulation

III. Principles of Sound Rate Design

Q. Please identify the principles of rate design you have relied upon as the basis for Chesapeake’s rate design proposals.

A. A number of rate design principles or objectives find broad acceptance in utility regulatory and policy literature. These include:

1. Efficiency;
2. Cost of Service;
3. Value of Service;
4. Stability;
5. Non-Discrimination;
6. Administrative Simplicity; and
7. Balanced Budget.

These rate design principles draw heavily upon the “Attributes of a Sound Rate Structure” developed by James Bonbright in Principles of Public Utility Rates. Each of these principles plays an important role in analyzing the rate design proposals of Chesapeake.

Q. Please discuss the principle of efficiency.

A. The principle of efficiency broadly incorporates both economic and technical efficiency. As such, this principle has both a pricing dimension and an engineering dimension. Economically efficient pricing promotes good decision-making by gas producers and consumers, fosters efficient expansion of delivery

1 capacity, results in efficient capital investment in customer facilities, and
2 facilitates the efficient use of existing gas pipeline, storage, transmission, and
3 distribution resources. The efficiency principle benefits stakeholders by creating
4 outcomes for regulation consistent with the long-run benefits of competition while
5 permitting the economies of scale consistent with the best cost of service.
6 Technical efficiency means that the development of the gas utility system is
7 designed and constructed to meet the design day requirements of customers
8 using the most economic equipment and technology consistent with design
9 standards.

10 **Q. Please discuss the cost of service and value of service principles.**

11 A. These principles each relate to designing rates that recover the utility's total
12 revenue requirement without causing inefficient choices by consumers. The cost
13 of service principle contrasts with the value of service principle when certain
14 transactions do not occur at price levels determined by the embedded cost of
15 service. In essence, the value of service acts as a ceiling on prices. Where
16 prices are set at levels higher than the value of service, consumers will not
17 purchase the service.

18 **Q. Please discuss the principle of stability.**

19 A. The principle of stability typically applies to utility revenues and customer rates
20 alike. Revenue stability and predictability for utilities will provide a minimum of
21 unexpected changes that are seriously adverse to their fiscal condition. This
22 principle also suggests that reasonably stable and predictable prices are
23 important objectives of a proper rate design. In this regard, employing the

concept of “gradualism” by moderating rate increases in order to minimize adverse bill impacts on customers is consistent with this principle.

Q. Please discuss the concept of non-discrimination.

A. The concept of non-discrimination requires prices designed to promote fairness and avoid undue discrimination. Fairness requires no undue subsidization either between customers within the same class or across different classes of customers.

This principle recognizes that the ratemaking process requires discrimination where there are factors at work that cause the discrimination to be useful in accomplishing other objectives. For example, considerations such as the location, type of meter and service, demand characteristics, size, and a variety of other factors are often recognized in the design of utility rates to properly distribute the total cost of service to and within customer classes. This concept is also directly related to the concepts of vertical and horizontal equity. The principle of horizontal equity requires that “equals should be treated equally” and vertical equity requires that “unequals should be treated unequally.” Specifically, these principles of equity require that where cost of service is equal—rates should be equal and, where costs are different—rates should be different.

Q. Please discuss the principle of administrative simplicity.

A. The principle of administrative simplicity as it relates to rate design requires prices be reasonably simple to administer and understand. This concept includes price transparency within the constraints of the ratemaking process. Prices are transparent when customers are able to reasonably calculate and

1 predict bill levels and interpret details about the charges resulting from the
2 application of the tariff.

3 **Q. Please discuss the principle of the balanced budget.**

4 A. This principle permits the utility a reasonable opportunity to recover its allowed
5 revenue requirement based on the cost of service. Proper design of utility rates
6 is a necessary condition to enable an effective opportunity to recover the cost of
7 providing service included in the revenue authorized by the regulatory authority.
8 This principle is very similar to the stability objective that I previously discussed
9 from the perspective of customer rates.

10 **Q. Can the objectives inherent in these principles compete with each other at**
11 **times?**

12 A. Yes, like most principles that have broad application, these principles can
13 compete with each other. This competition or tension requires further judgment
14 to strike the right balance between the principles. Detailed evaluation of rate
15 design alternatives and rate design recommendations must recognize the
16 potential and actual competition between these principles. Indeed, Bonbright
17 discusses this tension in detail. Rate design recommendations must deal
18 effectively with such tension.

19 **IV. Proposed Revenue Allocation**

20 **Q. Please describe the approach generally followed to allocate Chesapeake's**
21 **proposed revenue increase of \$4.74 million to its customer classes.**

22 A. As just described, the apportionment of revenues among customer classes
23 consists of deriving a reasonable balance between various criteria or guidelines
24 that relate to the design of utility rates. The various criteria that were considered

1 in the process included: (1) cost of service; (2) class contribution to present
2 revenue levels; and (3) customer impact considerations. These criteria were
3 evaluated for Chesapeake's rate classes to facilitate the development of the
4 proposed class revenue targets. The first step in this process is to analyze the
5 current return and revenue to cost ratios by each customer class (i.e., the
6 amount of revenue Chesapeake is receiving in comparison to the costs to serve
7 each customer class).

8 **Q. What insight is gained from reviewing the current return and revenue to**
9 **cost ratios for each customer class?**

10 A. As a result of the ACOSS, the current return and revenue-to-cost ratio can be
11 seen for each customer class on Table 1 below. For instance, RS-1 is providing
12 a negative return of 4.84% with a revenue-to-cost ratio of 0.45. RS-2 is providing
13 a return of 2.25% with a revenue-to-cost ratio of 0.73. The two residential
14 customer classes are providing revenue far below Chesapeake's cost to serve
15 these classes. In contrast the LVS and HLFS classes are providing revenues
16 higher than Chesapeake's cost to serve these classes. In short, there is an
17 interclass subsidy whereby some of the larger commercial and industrial
18 customers are subsidizing the service of other customer classes; namely
19 Residential and General Service.

1

Table 1 – Return and Revenue to Cost Ratio

| Line | A | | B | C | D | E | F | G |
|---------|--------------------------|------|---|----------------------------------|---|--------------------------------|-------------------|-------------------------------|
| | Class | | | Pro Forma Delivery Revenue | Proposed Revenue for Equal Rates of Return | Revenue to Cost Ratio | ROR at Current | Relative Rate of Return |
| 1 | System Total | | | \$ 22,223,119 | \$ 26,964,933 | 0.82 | 4.61% | 1.00 |
| 2 | Residential Service -1 | RS-1 | | 824,888 | 1,824,742 | 0.45 | -4.84% | -1.05 |
| 3 | Residential Service - 2 | RS-2 | | 13,899,067 | 19,070,205 | 0.73 | 2.25% | 0.49 |
| 4 | General Service | GS | | 1,469,623 | 1,908,282 | 0.77 | 3.53% | 0.77 |
| 5 | Medium Volume Service | MVS | | 890,630 | 1,014,740 | 0.88 | 6.16% | 1.34 |
| 6 | Large Volume Service | LVS | | 2,114,683 | 1,536,873 | 1.38 | 15.32% | 3.33 |
| 7 | High Load Factor Service | HLFS | | 2,860,886 | 1,584,634 | 1.81 | 23.76% | 5.16 |
| 8 | Gas Lighting Residential | GLR | | 705 | 1,003 | 0.70 | 1.35% | 0.29 |
| 2 10 | Interruptible Service | IS | | 162,637 | 24,454 | 6.65 | 133.69% | 29.03 |

3 **Q. How does this interclass subsidy affect the ability to move the classes to**
4 **their fully allocated cost of service?**

5 A. The first option that I evaluated under Chesapeake's proposed total revenue
6 level was to adjust the revenue level for each customer class so that the
7 revenue-to-cost for each class was equal to 1.00. As a matter of judgment, it
8 was decided that this fully cost-based option was not the preferred solution to the
9 interclass subsidy issue. The rate impact of moving the two residential classes to
10 their fully allocated cost of service would be in direct contrast with Bonbright's
11 principal of stability as the rate impacts would be very large for those classes. It
12 should be pointed out, however, that those class revenue results represented an
13 important guide for purposes of evaluating subsequent rate design options from a
14 cost of service perspective.

15 **Q. How did you balance the competing needs of reducing the interclass**
16 **subsidy with principles of rate stability and gradualism?**

17 A. First I did not provide rate decreases to any of the classes. Providing a rate
18 decrease to those classes providing more revenues than their costs would result
19 in even more costs needing to be recovered from the residential classes, who are

already far below their cost of service. Secondly, I developed a band around Chesapeake's proposed overall system increase, which is 21.34%, of 1.5x and 2x to assess the reasonableness of rate increases. The resulting increase target at 1.5x the overall system increase is 32.01% and at 2x the increase is 42.67%. I was able to move RS-2 and GS closer to their cost of service but kept them below the 1.5x increase band. For RS-1, I set their target revenue-to-cost ratio at a level that would result in a 0.00% return for that class. This resulted in the proposed increase for RS-1 slightly above the 2x band. As a result every class except LVS and HLFS (which did not receive a revenue decrease) moved closer to a revenue-to-cost ratio of 1.00. This resulted in the relative rate of return among the classes tightening (i.e., the large disparity of returns among the classes is no longer as large). Table 2 below provides details on this outcome. This information is also provided in Exhibit RJA-1.

Table 2 – Proposed Revenue Increase and Resulting Return

| Line | A | | B | C | D | E | F |
|------|--------------------------|------|---|------------------------|------------------------------|-------------------------|-------------------------|
| | Class | | | Target Revenue to Cost | Proposed Increase (Decrease) | ROR @ Proposed Increase | Relative Rate of Return |
| 1 | System Total | | | | \$ 4,741,815 | 8.55% | 1.00 |
| 2 | Residential Service -1 | RS-1 | | 0.65 | 364,328 | 0.00% | (0.00) |
| 3 | Residential Service - 2 | RS-2 | | 0.93 | 3,814,419 | 6.89% | 0.81 |
| 4 | General Service | GS | | 1.00 | 438,660 | 8.55% | 1.00 |
| 5 | Medium Volume Service | MVS | | 1.00 | 124,110 | 8.55% | 1.00 |
| 6 | Large Volume Service | LVS | | 1.38 | - | 15.39% | 1.80 |
| 7 | High Load Factor Service | HLFS | | 1.81 | - | 23.87% | 2.79 |
| 8 | Gas Lighting Residential | GLR | | 1.00 | 298 | 8.55% | 1.00 |
| 10 | Interruptible Service | IS | | - | - | 134.42% | 15.72 |

V. Proposed Rate Design

Q. Please summarize the rate design changes Chesapeake has proposed in this rate proceeding.

1 A. I will present the specific rate design changes and supporting rationale for
2 Chesapeake's rate design proposals. Chesapeake is not making any changes to
3 the rate block cut-offs and rate schedule availability for each of the rate
4 schedules.

5 Further, Chesapeake is proposing to increase the monthly customer
6 charge for each of the rate schedules to reflect the underlying costs of providing
7 basic customer service to those rate schedules, with the exception of the
8 customer charges for the communities served under the Company's expansion
9 tariffs. Those customer charges were determined in a recent Chesapeake
10 proceeding and will be reviewed according to the schedule set in that docket.¹

11 **Q. Please summarize the reasons why the Company is proposing to increase**
12 **the customer charge levels and the relationship to the rate design**
13 **principles you discussed earlier.**

14 A. The Company has proposed monthly residential customer charges at levels that
15 more closely approximate their full customer cost responsibility. The \$15.00
16 Residential RS-1 customer charge would bring this charge to approximately 44%
17 of its full customer cost level, while the \$17.00 customer charge for the
18 Residential RS-2 class will approach 52% of full cost, and the \$34.00 for the
19 General Service class will approach 75% of full cost. These proposed customer
20 charges reduce customer bill volatility, alleviate some of the instability in the
21 Company's margin recovery, are fair to customers within the Residential and
22 General Service classes, are easily understood, do not place a greater burden on
23 low income customers than rates that have a more volumetric weighting, and

¹ [Order No. 8479 dated November 5, 2013, in Delaware PSC Docket No. 12-292.]

1 convey more appropriate price signals with respect to recovery of fixed
2 distribution costs.

3 **Q. Please elaborate.**

4 A. Establishing higher monthly customer charges helps to equalize the contribution
5 each customer within a class makes towards recovery of customer costs
6 attributable to this class. This method of customer cost recovery is preferable to
7 including such costs in the commodity block prices, which has the effect of
8 causing some customers to pay too much while others pay too little.

9 The customer charges provide for recovery of a portion of the Company's
10 fixed customer costs, which are incurred solely because of the existence of
11 customers connected to the system. These costs, such as the expense of
12 reading meters and billing, occur regardless of whether gas is consumed and are
13 not related to demands placed on the system. The proposed customer charge
14 increases will also help to ensure recovery by the Company of a greater portion
15 of its fixed costs of providing service. Inasmuch as customer costs are not
16 related to usage, they should be recovered to the extent possible through a tariff
17 mechanism that does not depend upon volumetric billing.

18 In terms of understandability, customers should easily understand a full
19 customer cost based charge. A full customer cost based charge is easily
20 explained since the rate is based on customer costs. Because these costs do
21 not vary with the customer's usage, it is perfectly understandable that the charge
22 should not vary as well. It is intuitively obvious that a customer should not pay
23 more for being a customer when the weather is cold, and conversely should not
24 pay less when the weather is warm.

1 **Q. Have you provided an Exhibit that depicts the proposed rates for all**
2 **classes of service?**

3 A. Yes. Exhibit RJA-2 shows the derivation of each rate component for each of
4 Chesapeake's rate schedules.

5 **Q. Please describe the bill impacts prepared to illustrate Chesapeake's rate**
6 **design proposal impact on the various rate schedules.**

7 A. Monthly bill impacts across a typical year of average monthly consumption are
8 shown for Residential and General Service customers on Exhibit RJA-3. The
9 average monthly increase for a Residential RS-2 customer under the Company's
10 proposed rate design is \$8.27 or 12.15%. Further, monthly bill impacts for
11 customers over a range of monthly consumption levels are shown on Exhibit
12 RJA-4.

13 **VI. Revenue Decoupling**

14 **A. Changes to the Traditional Ratemaking Process**

15 **Q. Can you please describe the business conditions and key challenges that**
16 **have faced both regulators and the gas distribution utility industry over the**
17 **last several years?**

18 A. Yes. The major business challenges faced by gas distribution utilities operating
19 in North America over the past several years have included:

- 20 • Weather variability and warming temperatures;
- 21 • Declining use per customer;
- 22 • Increased impact and promotion of energy efficiency and conservation
- 23 measures;

- Rising costs of labor and materials for expansion and growth; and
- Increasing requirements applicable to heightened regulatory oversight over safety issues and due to maintenance and improvement of aging infrastructure and system reliability.

These challenges, in turn, create stresses and challenges for regulators such as managing more frequent and larger rate case filings or developing new regulatory tools for encouraging energy conservation without requiring still more general rate case filings.

Q. How do the business challenges you have described impact a gas utility's delivery service costs and its ability to recover these costs through base rates?

A. The business challenges I just described have a combined effect of introducing elements of considerable and recurring variability, unpredictability and uncontrollability related to a gas utility's costs of delivery service and the gas usage factors used to set its base rates to recover such costs.

Q. Please explain this phenomenon.

A. Very simply, these elements of variability are not well accommodated within the context of the traditional utility ratemaking process. First, the traditional volumetric structure of a utility's base rates does not allow for the full recovery of a utility's non-gas cost of service approved by its utility regulator whenever a decline is experienced in the level of its billing determinants (i.e., customers' gas consumption levels are lower than the level used to establish base rates). Second, the static nature of how a utility's revenue requirement is determined precludes the recognition and timely recovery of additional costs incurred by the

1 utility in providing delivery service that is necessitated by unpredictable or
2 uncontrollable business conditions that the utility has to accommodate.

3 **Q. Have these business conditions and associated challenges caused utilities,**
4 **regulators, and stakeholders to explore more innovative natural gas rate**
5 **design approaches?**

6 A. Yes. In my experience, it is widely recognized by industry participants, regulators,
7 and other key stakeholders including energy conservation advocates that
8 innovative approaches to utility ratemaking can actually align all the various
9 interests in a way that creates opportunities out of these challenges. In addition,
10 the fixed cost nature of the gas distribution business warrants new approaches to
11 the traditional ratemaking process in order that a utility be given a reasonable
12 opportunity to recover its fixed costs of providing gas delivery service, and that its
13 customers pay for that service in an appropriate and equitable manner. With the
14 associated changes to key industry drivers - such as the gas supply/demand
15 balance, marketplace price dynamics, and customer usage characteristics - the
16 policy objectives of stakeholders pertaining to utility ratemaking also are
17 changing. At the same time, there is a growing recognition that the current rate
18 design approaches may not be working as intended as evidenced by stakeholder
19 impacts and original rate design objectives not being satisfied. These impacts
20 have included the inability of gas distribution utilities to fully recover their
21 approved revenue requirements and customers paying more or less than
22 expected for gas service due to fluctuations in weather from "normal" conditions.

23 **Q. Please explain some of these innovative approaches to rate design for gas**
24 **distribution utilities.**

1 A. The above-described business conditions and challenges have led to
2 fundamental changes in the ratemaking approaches traditionally relied upon by
3 gas distribution utilities, and approved by utility regulators. These changes are
4 reflected in the growing and widespread approval of various innovative
5 ratemaking approaches by gas distribution utilities. These approaches can be
6 characterized in broad terms as follows:

- 7 1. Revenue decoupling mechanisms,
- 8 2. Rate design utilizing a single, fixed monthly charge.
- 9 3. Automatic adjustment rate mechanisms or rate trackers that address
10 items such as the recovery of bad debt expenses, infrastructure
11 replacement costs, energy efficiency program costs, and margin
12 revenue losses due to warmer-than-normal weather.
- 13 4. Revenue (return) stabilization mechanisms.

14 **Q. In your expert opinion, what current business challenges are having the**
15 **greatest impact upon the gas distribution industry?**

16 A. The combination of increasing fixed costs associated with increased investments
17 to replace aging infrastructure and to address increased regulatory requirements,
18 combined with conservation efforts, weather variability, and the uncertain ability
19 of gas distribution utilities to recover their approved level of margin revenues has
20 been the greatest, and a continuing, challenge to the gas distribution utility
21 segment of the energy industry. And although this serious challenge has been
22 addressed, or at least partially mitigated, for a growing number of gas utilities in
23 recent years through innovative ratemaking approaches, it continues to impact
24 many utilities' financial performance.

1 **Q. How has the gas distribution utility industry addressed the challenge of**
2 **under recovery of fixed costs?**

3 A. The revenue shortfall challenge for gas distribution utilities has received much
4 attention from state regulators in recent times. To effectively mitigate the
5 variability in revenues caused primarily by weather and declining use per
6 customer, and to align utility objectives with key public policy goals such as
7 energy conservation, regulators have implemented a number of ratemaking
8 solutions, including:

- 9 1. Revenue decoupling mechanisms that adjust rates for changes in
10 usage caused primarily by weather and energy conservation;
- 11 2. Straight Fixed-Variable ("SFV") rate structures;
- 12 3. Weather Normalization Adjustment ("WNA") mechanisms that adjust
13 rates for changes in usage caused by weather; and
- 14 4. Monthly customer charges that more fully reflect the gas utility's fixed
15 costs of providing gas delivery service.

16 **Q. Are the ratemaking solutions that you just described mutually exclusive for**
17 **a gas distribution utility?**

18 A. No. There are numerous examples of gas distribution utilities that have received
19 approval from regulators to implement more than one of these ratemaking
20 solutions recognizing that they work together to address the business challenges
21 that I described earlier.

22 **Q. Can you provide an overall picture of the degree to which utility regulators**
23 **have implemented these types of ratemaking solutions for gas distribution**
24 **utilities?**

1 A. Yes. Exhibit RJ-A-6, Schedule 1 presents a map of the U.S. which depicts the
2 extent to which revenue decoupling mechanisms, SFV rate structures, WNA
3 mechanisms, and revenue (return) stabilization mechanisms have been
4 approved, or are currently being addressed, in the various states.² This
5 information clearly shows the widespread regulatory acceptance of these types
6 of ratemaking solutions. Based on this information, there are 27 states that have
7 approved, or have pending, one or more types of the non-volumetric ratemaking
8 approaches that I just presented. Therefore, only 23 states have not yet
9 experienced any meaningful activity related to these types of innovative
10 ratemaking solutions. Finally, I should add that WNA mechanisms have been a
11 part of the utility ratemaking process for the natural gas industry since the 1980s,
12 while revenue decoupling mechanisms and SFV rate design has appeared more
13 recently, with the majority having been approved by utility regulators between
14 2005 and 2010.

15 Regarding the industry-wide trends observed in the level of monthly
16 customer charges, it is has been common practice on the part of gas distribution
17 utilities in recent years to adjust their monthly customer charges³ to levels that
18 are much closer to the customer-related fixed costs of gas delivery service.
19 Interestingly, a number of the gas utilities that have pursued this ratemaking
20 approach also have implemented revenue decoupling mechanisms. To the
21 extent a gas utility is allowed by the regulator to adjust its monthly customer

² Compiled from American Gas Association and Black & Veatch data – as of September 2015. Schedule 3 of this Exhibit provides a table with additional details on the decoupling mechanisms approved throughout the United States.

³ This is especially true in the utility's residential and small general service markets where the majority of its non-gas revenues are designed to be collected.

1 charges in each rate case towards the underlying cost of service, all other things
2 being equal, the periodic rate adjustments under the utility's revenue decoupling
3 mechanism will decrease in magnitude.

4 An American Gas Association ("AGA") analysis⁴ addressing the customer
5 charge component of gas utility rates noted that gas utilities have sought to
6 increase their monthly customer charges to better capture the actual fixed costs
7 of serving smaller residential and general service customers, citing the following
8 customer and utility benefits:

- 9 • Moderates volatility in customer bills;
- 10 • Encourages gas utilities to promote energy conservation by customers;
- 11 • Reduces winter bills for high use customers;
- 12 • Reduces the need for future rate cases;
- 13 • Makes utility earnings less dependent on sales volumes;
- 14 • Improves cash flow, mitigating the need for working capital; and
- 15 • Is a more appropriate way to recover fixed costs.⁵

16 There were some important conclusions reached in the analysis, including:

- 17 • The monthly customer charge was typically \$11.25 per month for
18 residential customers (the median value), with the corresponding charge
19 of \$15.53 per month in the third quartile of the research population⁶.

⁴ Natural Gas Utility Rate Structure: The Customer Charge Component – 2015 Update, American Gas Association, Energy Analysis EA-2015-3, dated May 28, 2015.

⁵ Compared to recovery through volumetric delivery charges.

⁶ The AGA analysis is based on a February 2015 internet search of natural gas utility tariffs and AGA surveys, representing 237 rate jurisdictions in all states and the District of Columbia. Black & Veatch conducted an update to the basic numerical results of the above-described AGA analysis to reflect the level of monthly customer charges currently billed to residential customers by gas utilities in the U.S. This supplemental research was conducted in September 2015.

- 1 • The customer charge represented about nineteen (19) percent of a
2 customer's annual gas bill.
- 3 • The customer charges typically recovered forty-six (46) percent of a gas
4 utility's actual fixed costs of delivery service.
- 5 • A gas utility's monthly customer charge would have to be set at \$24.00
6 per month for the residential sector, on average, in order to recover all of
7 utility's typical fixed costs.
- 8 • The median monthly residential customer charge has increased from
9 \$10.00 in the AGA's 2010 study to the present studies' result of \$11.25.

10 Importantly, more than 57% of the monthly customer charges surveyed in the
11 residential sector are above Chesapeake's current Residential RS-1 customer
12 charge of \$10.50 per month for its residential class. Page 1 of Exhibit RJA-5,
13 presents a graphical representation of this result. Pages 2-7 of the Exhibit
14 present the current residential monthly customer charges by individual gas utility,
15 and state.

16 B. Industry-Wide Activities Related to Revenue Decoupling

17 **Q. Please discuss the nationwide trends related to revenue decoupling**
18 **mechanisms for gas distribution utilities.**

19 A. Overall, there is a strong recognition and endorsement throughout the utility
20 industry of ratemaking approaches that "decouple" a utility's sales from its
21 revenues. In my opinion, such a ratemaking approach has become widespread
22 as its conceptual underpinnings have gained acceptance by a number of utility
23 regulators as the challenges in the utility industry become more evident and
24 pronounced.

1 In 2002, there were only three (3) states that had approved revenue
2 decoupling mechanisms for gas utilities – and currently there are twenty-two (22)
3 states that have approved revenue decoupling, and five (5) additional states that
4 have approved SFV rate design (another form of revenue decoupling).
5 ExhibitRJA-6, Schedule 2 presents a map of the U.S. which depicts the extent to
6 which revenue decoupling has been approved in the various states.⁷

7 **Q. What is the overall structure of revenue decoupling mechanisms approved**
8 **by utility regulators in the U.S.?**

9 A. Exhibit RJA-6, Schedule 3 presents a tabular listing of all the revenue decoupling
10 mechanisms approved for gas utilities in the U.S. This Schedule includes the
11 name of the gas utility, the state in which the utility is located, the year the
12 revenue decoupling mechanism was approved, the type of mechanism, whether
13 the mechanism applies to all rate classes, and the inclusion of any revenue/rate
14 restrictions or caps. The vast majority of revenue decoupling mechanisms
15 approved in the U.S. are designed on a “full” decoupled basis. This means that
16 the ratemaking mechanism addresses all factors (including variations in weather)
17 that impact use per customer. It should be noted that in the states where a single
18 ratemaking mechanism is not used to achieve “full” revenue decoupling, the
19 utility regulators also have approved companion WNA mechanisms for those
20 utilities to specifically address the impact of weather upon their gas volumes and
21 non-gas revenues. This ratemaking approach effectively provides the gas utility
22 with “full” revenue decoupling.

⁷ Reflects states where revenue decoupling mechanisms or SFV rate structures has been approved since both “decouple” a utility’s sales from its revenues.

1 **Q. In your opinion, what are the factors driving this level of interest in revenue**
2 **decoupling?**

3 A. I believe there are two key factors driving this interest in revenue decoupling.
4 First, it is widely acknowledged by utilities, regulators, legislators, and other
5 stakeholders that utilities have an inherent disincentive to promote energy
6 efficiency. This is caused by the prevalence of volumetric-based rate structures
7 for gas utilities that create a decline in margin revenues with a decline in
8 customers' gas usage. Revenue decoupling removes this inherent disincentive
9 as a necessary prerequisite to utilities offering energy efficiency and conservation
10 programs to their customers.

11 Second, as a result of an ongoing decline in use per customer, most gas
12 utilities have experienced an under-recovery of margin revenues.⁸ This serious
13 financial impact can be mitigated with revenue decoupling.

14 **Q. Have other participants in the gas industry endorsed the concept of**
15 **revenue decoupling to address the inherent disincentive that a utility has to**
16 **promote energy efficiency?**

17 A. Yes. Over the last ten years or so, many energy industry groups have been
18 publicly advocating a renewed focus on promoting cost-effective energy
19 efficiency measures to help relieve consumer burdens associated with the price
20 of natural gas. These groups have included the AGA, the Edison Electric Institute
21 ("EEI"), the Natural Resources Defense Council ("NRDC"), the Alliance to Save

⁸ On average, natural gas use per customer in the U.S. has been declining by about one percent per year since 1980. See the American Gas Association Energy Analysis entitled, "Forecasted Patterns in Residential Natural Gas Consumption," 2001-2020, EA 2004-04 (dated September 24, 2004).

1 Energy, and the American Council for an Energy Efficient Economy (“ACEEE”).
2 These groups realized that a fundamental change must be made to the utility
3 ratemaking process in order to achieve these consumer benefits. They have
4 endorsed the concept of revenue decoupling as their solution to the problem.⁹

5 The NRDC and the Edison Electric Institute issued a particularly pointed
6 statement. It noted that:

7 *To eliminate a powerful disincentive for energy efficiency and distributed-*
8 *resource investment, we both support the use of modest, regular true-ups*
9 *in rates to ensure that any fixed costs recovered in kilowatt-hour charges*
10 *are not held hostage to sales volumes.*¹⁰

11 **Q. Has any other industry organization recognized revenue decoupling as a**
12 **viable ratemaking concept to address this issue?**

13 A. Yes. NARUC has recognized that revenue decoupling as a ratemaking concept
14 provides earnings stability for utilities and removes the disincentives for
15 promoting energy conservation. In particular, NARUC made reference to the
16 above-mentioned groups and stated that:

17 *Among the mechanisms supported by these groups are the use of*
18 *automatic rate true-ups to ensure the utility’s opportunity to recover*

⁹ Joint Statement of the American Gas Association and the Natural Resources Defense Council submitted to the National Association of Regulatory Utility Commissioners (“NARUC”), July 2004.

¹⁰ Joint recommendation submitted in November 2003 to the NARUC by the NRDC and the Edison Electric Institute.

1 *authorized fixed costs is not held hostage to fluctuations on (sic) retail*
2 *sales.*¹¹

3 In its 2005 Fall Meeting, NARUC's Board of Directors adopted the
4 "Resolution on Energy Efficiency and Innovative Rate Design," dated November
5 16, 2005. As set forth in this second resolution:

6 *[NARUC]...encourages State commissions and other policy makers to*
7 *review the rate designs they have previously approved to determine*
8 *whether they should be reconsidered in order to implement innovative rate*
9 *designs that will encourage energy conservation and energy efficiency*
10 *that will assist in moderating natural gas demand and reducing upward*
11 *pressure on natural gas prices...*¹²

12 The NARUC resolution recognized that the traditional volume driven approach to
13 regulating the rates that utilities charge to deliver natural gas might tend to
14 misalign the interests of natural gas utilities and the goals of energy efficiency
15 and energy conservation.¹³ As part of this review, NARUC further encouraged
16 state utility regulators and other policy makers to consider in their review
17 innovative rate designs including "energy efficiency tariffs" and "decoupling

¹¹ NARUC Resolution on Gas and Electric Efficiency, Sponsored by NARUC Natural Gas Task Force, Committee on Gas, Committee on Consumer Affairs, Committee on Electricity, Committee on Energy Resources and the Environment, adopted by the NARUC Board of Directors on July 14, 2004.

¹² NARUC Resolution on Energy Efficiency and Innovative Rate Design, Sponsored by the Committee on Gas, recommended by the NARUC Board of Directors on November 15, 2005, adopted by the NARUC on November 16, 2005.

¹³ Ibid.

1 tariffs.”¹⁴ The resolution recognized several utilities that have received approval
2 of revenue decoupling mechanisms, fixed-variable rates and other innovative
3 rate design approaches.

4 In July of 2008, NARUC issued a second resolution¹⁵ in response to the
5 Second Joint Statement of the AGA and NRDC¹⁶ again encouraging state
6 commissions and other policymakers to review and give strong consideration to
7 favorably approving gas distribution proposals consistent with the principles and
8 recommendations made in the AGA/NRDC Statement.

9 **Q. Have any national policy initiatives been undertaken to address the**
10 **deficiencies in traditional utility ratemaking?**

11 A. Yes. The National Action Plan for Energy Efficiency¹⁷ (“Action Plan”) emphasizes
12 the need to eliminate ratemaking and regulatory disincentives or barriers through
13 its recommendation that utility regulators “modify policies to align utility incentives
14 with the delivery of cost-effective energy efficiency and modify ratemaking
15 practices to promote energy efficiency investments.” Specifically, the Action Plan
16 states that, “removing the throughput incentive is one way to remove a
17 disincentive to invest in efficiency.” It is widely recognized that a revenue

¹⁴ Ibid.

¹⁵ NARUC Resolution on Second Joint Statement of the American Gas Association and the Natural Resources Defense Council in Support of Measures to Promote Increased Energy Efficiency and reduction in Greenhouse Gas Emissions, Sponsored by the Committee on Gas and Energy Resources and the Environment, adopted by the NARUC Board of Directors on July 23, 2008.

¹⁶ Second Joint Statement of the American Gas Association and the Natural Resources Defense Council, May 2008.

¹⁷ Issued in July 2005, the “Action Plan” was facilitated by the U.S. Department of Energy and U.S. Environmental Protection Agency with the participation of over 50 utilities, public utility commissions, energy consumers, and non-governmental groups to set a broad course for encouraging greater energy efficiency investment in the United States.

1 decoupling mechanism is a ratemaking approach that can address the
2 “Throughput Incentive” utilities have when their rates are designed so that fixed
3 costs are recovered through volumetrically-based energy charges.

4 I would also note that in NARUC’s “Resolution Supporting the National
5 Action Plan on Energy Efficiency” (“NARUC Resolution”) it endorsed “the
6 principal objectives and recommendations of the Action Plan, and commends to
7 its member commissions a state-specific, or where appropriate, regional review
8 of the elements and potential applicability of energy efficiency policy
9 recommendations outlined in the Action Plan, in an effort to identify potential
10 improvements in energy efficiency policy nationwide.”¹⁸ The NARUC Resolution
11 cites five key elements of the Action Plan, including the modification of
12 ratemaking practices to align utility incentives with the delivery of cost effective
13 energy efficiency and to promote energy efficiency investments.

14 **Q. Has Federal legislation in the last ten years addressed revenue**
15 **decoupling?**

16 A. Yes. The Energy Independence and Security Act of 2007 addresses revenue
17 decoupling in conjunction with the Act’s directives on utility energy efficiency
18 programs. Section 532(b)(6)(A) of the Act states that “(t)he rates allowed to be
19 charged by a natural gas utility shall align utility incentives with the deployment of
20 cost-effective energy efficiency.” Further, from a policy perspective, the Act
21 directs each state regulatory authority to consider, “separating fixed-cost revenue

¹⁸ NARUC Resolution Supporting the National Action Plan for Energy Efficiency, Sponsored by the Executive Committee and the Committees on Consumer Affairs, Electricity, Energy Resources and the Environment, and Gas, adopted by the NARUC Board of Directors August 2, 2006.

1 recovery from the volume of transportation or sales service provided to the
2 customer. Clearly, revenue decoupling mechanisms and SFV rate design are two
3 ratemaking approaches that do achieve this policy objective.

4 Similarly, the American Recovery and Reinvestment Act of 2009
5 addresses the concept of revenue decoupling within the context of the energy
6 efficiency initiatives delineated in the Act. Section 410 (a) (1) of the Act
7 specifically states that the applicable State regulatory authority will seek to
8 implement a general policy that ensures that utility financial incentives are
9 aligned with helping their customers use energy more efficiently. As I discussed
10 earlier, this alignment can be achieved by a utility and its stakeholders through
11 the implementation of a revenue decoupling mechanism.

12 **Q. Has the financial community recognized the value of ratemaking solutions**
13 **to address the conditions faced by gas utilities?**

14 A. Yes. The financial community has discussed the impact of energy conservation
15 and usage on gas utilities. It has acknowledged that rate design solutions such
16 as revenue decoupling favorably address the financial consequences of reduced
17 usage on gas utility systems. For example, Moody's Investor Service issued a
18 Special Comment report that specifically addressed this topic. The Moody's
19 report stated:

20 *Moody's believes that having utility rate designs that compensate the gas*
21 *LDCs for margin losses caused by variations in gas consumption due to*
22 *conservation as with variations due to weather, would serve to stabilize*

the utility's credit metrics and credit ratings. Utilities having these ratemaking mechanisms also tend to carry 'A' credit ratings.¹⁹

In addition, Standard & Poor's presented its views on the characteristics of credit-supportive regulation during a recent AGA Financial Forum, which included: (1) consistency and predictability of decisions; (2) timeliness of rate orders; (3) use of forward-looking measures; (4) use of adjustment clauses/trackers; (5) pre-approval processes; and (6) support during times of economic or financial stress.²⁰

C. Conceptual Support for the Implementation of Revenue Decoupling Mechanisms

Q. Please indicate the business challenges that have most influenced the decisions by gas distribution utilities to propose revenue decoupling mechanisms.

A. Some of the business challenges mentioned earlier that have most influenced the decisions by gas distribution utilities to propose revenue decoupling mechanisms have included weather variability, declining use per customer, and the ongoing energy efficiency and conservation efforts of their customers. Based on my discussions with Chesapeake staff, I understand that each of these factors has impacted Chesapeake's past financial performance and its customers' bills.

Q. Please explain how weather influences the ratemaking process for a gas utility.

¹⁹ "Impact of Conservation on Gas Margins and Financial Stability in the Gas LDC Sector," Special Comment Report, Moody's Investor Service, June 2005.

²⁰ “Understanding the Ratings Process and What it Means to the Cost of Capital,” presented by Ken Farer, Director – Standard & Poor’s, at the AGA Financial Forum, May 17, 2010.

1 A. As part of the ratemaking process, both test period costs and revenues of a gas
2 utility are established based on normal weather. The test period used by the
3 utility is designed to be a reasonable picture of the operating conditions expected
4 to occur during the period in which the utility's approved rates will be in effect.
5 The process of computing revenue under normal weather conditions consists of
6 either increasing or decreasing actual gas volumes, in relative terms, based on
7 the difference between normal temperatures established for the utility's service
8 area and actual temperatures experienced during the actual year.

9 **Q. How are weather-normalized gas volumes used to derive a gas utility's**
10 **base rates?**

11 A. While the following explanation is somewhat over-simplified, essentially the
12 utility's unit rates and charges for gas service are derived by dividing the
13 appropriate costs, to be recovered through rates, by the weather-normalized gas
14 volumes. These rates and charges are designed to provide the utility with an
15 opportunity to recover the significant level of fixed costs it incurs to provide utility
16 service, at the levels determined in the utility's last completed rate case. Fixed
17 costs are costs incurred by a utility that do not vary with the amount of gas
18 delivered to customers. For Chesapeake, these costs are composed of fixed
19 operation and maintenance ("O&M") expenses, administrative and general
20 expenses, depreciation, certain taxes, a portion of working capital requirements,
21 and return on investment. These costs also do not vary in the short-term with
22 changes in temperature. If actual temperatures are normal, the utility has a
23 reasonable opportunity to fully recover its fixed costs of service at established
24 sales levels. Unfortunately, normal temperatures seldom, if ever, occur.

1 Therefore, as a result of abnormal weather, the margin revenues and resulting
2 earnings of a utility such as Chesapeake can vary widely from the levels
3 authorized by its regulator.

4 **Q. Please explain more specifically what you mean by “margin revenues”.**

5 A. “Margin revenues” consist of a utility’s total cost of service, exclusive of
6 purchased gas expenses and any other expenses that are treated as “flow-
7 through” items in rates (e.g., revenue taxes). A utility generates margin revenues
8 through base rates for delivering gas to its customers. A utility’s margin revenues
9 reflect its overall costs of operations (exclusive of flow-through items), with most
10 of it fixed, including a fair and reasonable return on its utility assets. A portion of
11 margin revenues are typically recovered through fixed charges such as a monthly
12 customer charge, leaving the remaining portion of margin revenues to be
13 recovered through volumetric distribution charges.

14 **Q. What is the significance of any portion of margin revenues being recovered**
15 **through a volumetric charge?**

16 A. To the extent any margin revenue is subject to recovery in a volumetric charge,
17 the full recovery of such a margin revenue amount is entirely dependent upon the
18 volumes of gas usage experienced by the utility. Therefore, the recovery of
19 margin revenue in a volumetric component of rates puts full recovery at risk.

20 **Q. What portion of Chesapeake’s fixed costs is recovered through its current**
21 **volumetric distribution charges?**

22 A. For Chesapeake’s primary Residential, General Service, Medium Volume
23 Service, Large Volume Service, and High Load Factor Service classes,
24 approximately 56 percent (56%) of the current margin revenue is currently

1 designed to be recovered through its volumetric distribution charges (see page 4
2 of Exhibit RJA-2).

3 **Q. Is it important that a utility such as Chesapeake realizes the margin**
4 **revenue that was allowed by the regulator in the utility's most recent rate**
5 **case?**

6 A. Yes. The utility's financial health is directly tied to its ability to recover the total
7 cost of service (excluding purchased costs) approved by its regulator through the
8 margin revenues upon which its base rates were previously established.

9 **Q. Please explain how fluctuations in weather over time impact a gas utility's**
10 **temperature-sensitive customers and the utility's financial performance.**

11 A. Since the bills of gas customers are largely based on the level of gas usage,
12 temperature-sensitive customers' monthly bills can vary widely due to changing
13 weather conditions. Under traditional ratemaking methods, if actual temperatures
14 were colder than normal, the typical gas customer would use more gas, pay
15 more for service, and potentially overpay its share of fixed costs. This occurs
16 because the unit rates used to recover fixed costs are not reduced to recognize
17 the higher gas volumes used by customers during colder weather. Since the gas
18 utility's level of fixed costs does not change, the higher gas volumes applied
19 against the same unit rate would generate comparatively higher non-gas
20 revenues than the level of fixed costs established for ratemaking purposes.
21 Conversely, in warmer than normal weather, the reverse situation will occur.
22 Customers' gas usage decreases with warmer temperatures, thus generating
23 comparatively lower non-gas revenues than required to recover the gas utility's
24 total fixed costs that do not decrease due to warm weather.

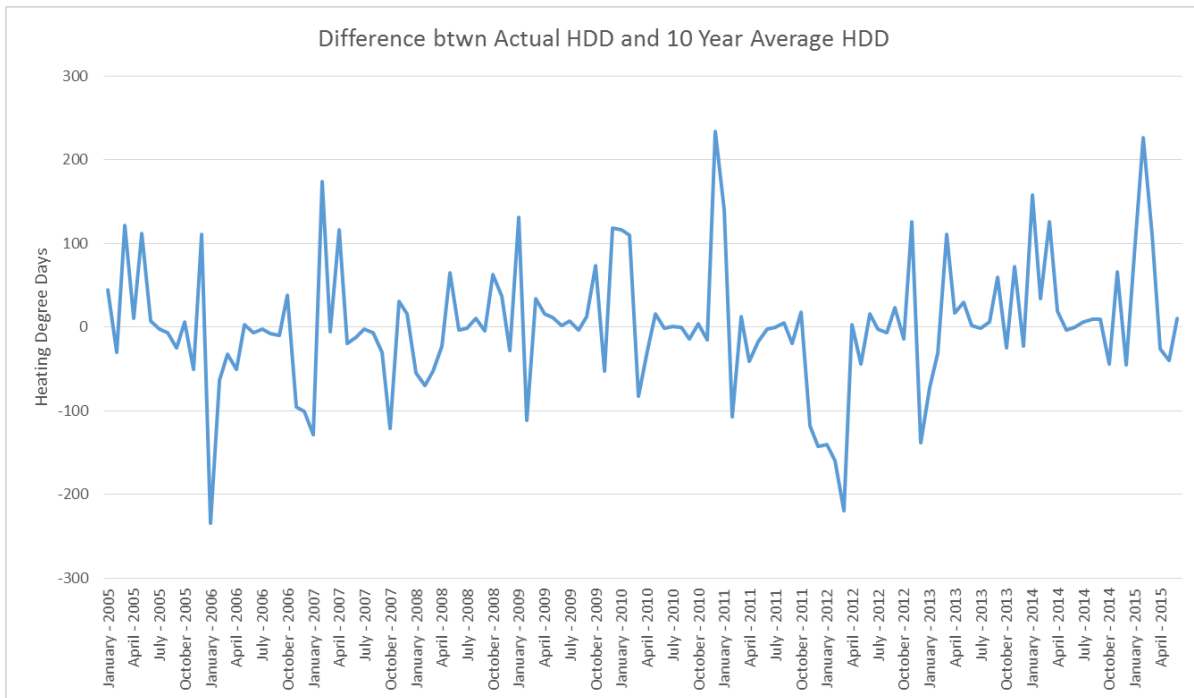
1 **Q. What is your understanding of Chesapeake's historical weather patterns?**

2 A. Based on my review of the weather data from the last eleven years (2005 –
3 2015), winter period temperatures during the months of January through March
4 have averaged colder than normal in eight of those years and have been
5 increasing over the past three years. Based on the weather data for
6 Chesapeake of the last ten calendar years (2005 through 2014), six have been
7 colder than normal based on the most recent 30-year average of Heating
8 Degree-Days ("HDDs"). This weather average is the basis upon which
9 Chesapeake's current base rates were set.

10 **Q. Have you prepared a graphical depiction of the historical weather pattern**
11 **experienced by Chesapeake?**

12 A. Yes. The historical weather pattern is presented in Table 3 below. The weather
13 is presented on an annual and monthly basis as the change in heating-degree
14 days ("HDDs") from Chesapeake's normal weather (and its monthly
15 components). As described in the testimony of Chesapeake witness Sarah E.
16 Hardy, the Company's current normal HDD level is based on the 10-year
17 average, calculated from weather data maintained by Eastern Shore Natural Gas
18 Company, an interstate pipeline wholly-owned by Chesapeake Utilities
19 Corporation . Clearly, there is a significant variation in actual weather compared
20 to normal weather. The variability of weather has very significant implications for
21 Chesapeake's ability to achieve its authorized margin revenue per customer
22 level, which is premised upon normal weather.

Table 3 – Historical Weather



Q. Historically, what has Chesapeake’s experience with gas use per customer?

A. Exhibit RJA-7 demonstrates that over the last six (6) years, the annual average use per customer has fluctuated in Chesapeake’s Residential and General Service classes.

Q. What reference point should be used to review Chesapeake’s volatility in use per customer?

A. The reference point should be the use per customer levels established in Chesapeake’s past rate case. Referring to Page 1 of Exhibit RJA-7, the annual “baseline” use per customer for the Residential R-2 class established in Docket No. 07-186 to design Chesapeake’s base rates was approximately 700 ccf per customer, respectively. One can readily see that over the succeeding years since that rate case was completed, Chesapeake’s R-2 class experienced an approximate annual use per customer greater than this level only once.

1 **Q. What conclusion do you reach from this assessment?**

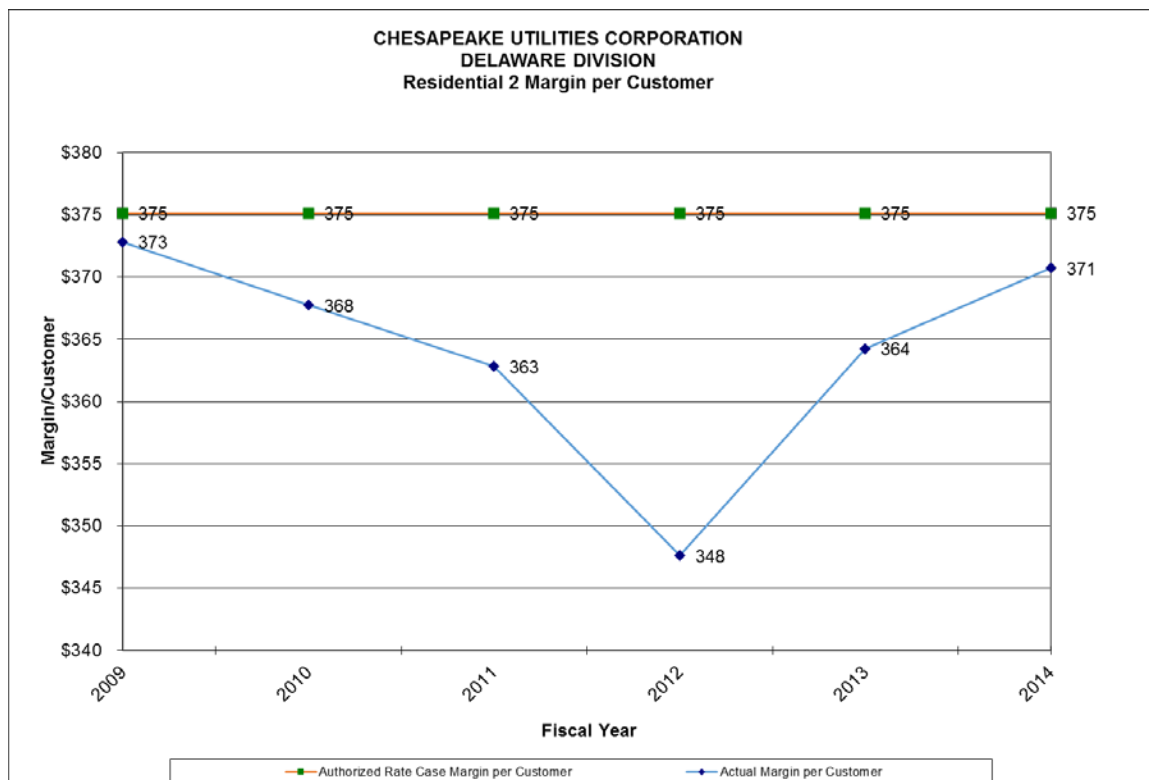
2 A. Chesapeake's "baseline" use per customer level established in its prior rate
3 cases was not representative of the actual use per customer it experienced in
4 subsequent years. In fact, the data in Exhibit RJA-7 demonstrates that the
5 baseline use per customer levels for the R-2 class were high relative to the actual
6 amounts, and that trend is expected to continue without a resetting of
7 Chesapeake's baseline use per customer levels. To the extent the baseline use
8 per customer level is not representative of Chesapeake's expected future trends,
9 its base rates will not properly recover from customers the fixed costs incurred to
10 provide them with gas delivery service.

11 **Q. Have you examined the variability in the margin revenues per customer**
12 **collected historically by Chesapeake?**

13 A. Yes. Exhibit RJA-7 presents the margin revenue per customer impact
14 experienced by Chesapeake in its Residential (RS-1 and RS-2) and General
15 Service classes due to fluctuations in gas volumes caused primarily by variations
16 in weather from normal levels and non-weather related changes in use per
17 customer. Between 2009 and 2014, Chesapeake incurred margin per customer
18 deficiencies for all three classes in the two warmer than normal years, while the
19 Residential RS-2 class experienced margin per customer deficiencies in all six
20 years, despite the colder than normal weather experience, as shown on Table 4
21 below.

1

Table 4 – Residential Customer Margin per Customer



2

3 **Q. How has Chesapeake’s historical experience with the variability in its**
 4 **margin per customer recovery been reflected in the Company’s achieved**
 5 **rate of return levels?**

6 A. The Table 5 below provides a comparison of the Company’s actual versus
 7 Commission authorized rates of return for its gas business, as shown in the
 8 Company’s Annual PSC Reports. While recognizing that the Company’s actual
 9 results of operations also reflects its ability to effectively manage those aspects
 10 of its business that are under its control, the trend in actual rate of return (“ROR”)
 11 since 2009 tracks the net operating income (NOI) deficiency shown in Exhibit
 12 RJA-7 for the same period. The Company experienced achieved NOI levels less
 13 than the corresponding return requirement in each of the six full calendar years
 14 and in the first six months of 2015, both on a contemporaneous rate base level

and the base year of 2009. The total NOI deficiency for the seven year period totaled approximately \$6.1 million.

Table 5 - Net Operating Income

| Adjusted Twelve Months Ended | Overall ROR | Return on Equity | Approved ROR | Total Rate Base | Return Requirement | Achieved NOI | Return Excess / (Deficiency) | Revenue Excess / (Deficiency) |
|------------------------------|-------------|------------------|--------------|-----------------|--------------------|--------------|------------------------------|-------------------------------|
| | | | | | | | | 1.66871 |
| 30-Jun-2015 | 5.52% | 5.70% | 8.91% | \$65,427,754 | \$ 5,829,613 | \$ 3,614,198 | \$ (2,215,415) | \$ (3,696,885) |
| 31-Dec-2014 | 5.42% | 5.57% | 8.91% | \$63,392,476 | \$ 5,648,270 | \$ 3,435,127 | \$ (2,213,143) | \$ (3,693,093) |
| 31-Dec-2013 | 8.26% | 8.95% | 8.91% | \$57,847,779 | \$ 5,154,237 | \$ 4,776,925 | \$ (377,312) | \$ (629,624) |
| 31-Dec-2012 | 8.87% | 9.83% | 8.91% | \$53,623,281 | \$ 4,777,834 | \$ 4,758,718 | \$ (19,116) | \$ (31,900) |
| 31-Dec-2011 | 8.73% | 9.75% | 8.91% | \$53,396,661 | \$ 4,757,643 | \$ 4,661,772 | \$ (95,870) | \$ (159,980) |
| 31-Dec-2010 | 8.16% | 9.05% | 8.91% | \$52,705,256 | \$ 4,696,038 | \$ 4,301,571 | \$ (394,467) | \$ (658,252) |
| 31-Dec-2009 | 7.48% | 7.95% | 8.91% | \$54,008,985 | \$ 4,812,201 | \$ 4,041,476 | \$ (770,724) | \$ (1,286,116) |
| | | | | | | | \$ (6,086,048) | \$ (10,155,850) |

Q. Company Witness Mr Christopher Redd's direct testimony discusses the increasing fixed costs and the associated concern over Chesapeake's ability to fully recover the appropriate level of revenue. Is the Company's concern unusual in the gas distribution industry?

A. No. Gas utilities across the U.S. continue to address their growing infrastructure requirements as a major part of their ongoing effort to provide safe, reliable, and cost-effective gas delivery service to their customers. From a regulatory perspective, this business initiative is facilitated through various ratemaking efforts that focus on achieving the full and timely recovery of such capital investment costs, as evidenced by the increased number of innovative ratemaking mechanisms²¹ approved by regulators that are designed to satisfy those ratemaking objectives. With increased capital expenditures related to infrastructure a certainty for gas utilities, these concerns will only grow over time.

²¹ Including infrastructure cost recovery mechanisms, formula rates, and multi-year rate plans.

1 **Q. How will the revenue decoupling mechanism proposed by Chesapeake**
2 **address weather, increasing conservation efforts, and the revenue**
3 **variability, which it has experienced?**

4 A. Chesapeake's proposed revenue decoupling mechanism will minimize the impact
5 of weather on the volatility of its customers' bills and on its financial condition.
6 The proposed mechanism represents the required fundamental change to the
7 utility ratemaking process to recognize that a utility such as Chesapeake has
8 difficulty in establishing a reasonable level of volumes in a rate case that can
9 accurately represent its volumes in future periods. As a consequence of this
10 process, the volumetric base rates or distribution charges that Chesapeake
11 would derive in its rate case, and that the Commission would approve, are
12 unlikely to reflect the level of base rates required in future periods to fully recover
13 its approved level of fixed operating costs.

14 **Q. In what other manner will the proposed revenue decoupling mechanism**
15 **impact Chesapeake?**

16 A. As described above the proposed revenue decoupling mechanism will align the
17 interests of Chesapeake with the interests of policymakers, conservation
18 advocates, and others with respect to energy conservation and efficiency
19 programs for Chesapeake's customers. It will place Chesapeake in a much
20 stronger position to offer to its customers various energy conservation and
21 efficiency programs to help offset the volatility and unpredictability of high gas
22 prices.

1 **Q. Please explain the importance of “breaking the link” between**
2 **Chesapeake’s sales and earnings to achieve enhanced energy efficiency**
3 **and conservation goals.**

4 A. Breaking this link is important because it eliminates Chesapeake’s “Throughput
5 Incentive” that is inherent in the way its gas rates have been historically
6 designed. The “Throughput Incentive” financially motivates a utility such as
7 Chesapeake to increase sales of natural gas (relative to historical levels which
8 underlie base rates) and to maximize the “throughput” of natural gas across its
9 utility system. Under the traditional utility ratemaking structure, a utility is
10 financially motivated to increase its sales levels in a future period above that
11 established in its previous rate case because its rates are designed to recover
12 most fixed costs on a volumetric basis – causing the utility’s revenues to increase
13 as its sales increase. With volumetric pricing for gas delivery service, an increase
14 in the recovery of fixed costs will occur (compared to the level approved in the
15 utility’s most recently completed rate case) when sales are higher than assumed
16 in the design of the utility’s rates. Conversely, a decrease in the recovery of fixed
17 costs will occur when sales are low relative to assumed levels. This situation
18 creates an automatic disincentive for utilities to promote conservation or energy
19 efficiency initiatives because such actions will reduce the utility’s revenues and
20 resulting earnings. Chesapeake’s proposed revenue decoupling mechanism will
21 adjust its rates on a periodic basis to offset the revenue impact of increases or
22 decreases in use per customer and therefore margin revenue per customer. By
23 doing so, its proposed revenue decoupling mechanism would effectively
24 eliminate the link between sales and earnings. Hence, it would encourage

Chesapeake to be supportive of measures which would promote decreased energy usage, conservation, or other energy efficiency initiatives.

Q. Please explain the mechanics of revenue decoupling in utility ratemaking.

A. While such a ratemaking mechanism can take several forms, the basic approach consists of defining a target for the utility's margin revenues and placing over- and under-collections of revenue with reference to that target in a deferred account for refund or recovery in a subsequent period. Under these mechanisms, the gas utility cannot increase its earnings by increasing its sales volumes because any over-collected margin revenues are refunded to customers.

Q. Is it necessary to continue to use some measure of sales volumes to compute a gas utility's unit rates?

A. Yes, it is. Under a revenue decoupling mechanism, however, the sales level assumed in the utility's last rate case upon which its base rates were designed is not blindly adhered to for purposes of representing the level of sales the utility actually achieves in a future 12-month period. By utilizing customers' actual sales levels and relating that amount to the utility's approved level of distribution margin revenues, rates can be adjusted to recover the appropriate level of revenues to produce the margin authorized by the regulator. In other words, the utility's realized distribution margins are no longer inextricably linked to its rate case sales level.

The de-emphasis of sales volumes in the operation of a revenue decoupling mechanism better recognizes the way consumers actually perceive, value, and purchase services offered by gas and electric utilities. A consumer does not look at utility services and consciously make a decision to purchase a

1 certain number of ccfs of gas or kilowatt-hours of electricity. Instead, the
2 consumer purchases utility services to acquire light, heat, air conditioning and a
3 wide range of other consumer needs and conveniences. Therefore, we should
4 not continue to hold the financial health of utilities hostage to the fluctuating sales
5 levels resulting from such consumer choices (or from weather). If over time
6 consumers are able to utilize energy commodities more efficiently, through
7 adoption of energy conservation and energy efficiency techniques promoted by
8 utilities and others, the utilities should not be penalized for these beneficial
9 societal actions.

10 **Q. Does the implementation of a revenue decoupling mechanism provide the**
11 **utility with a guarantee that it will achieve the financial performance**
12 **previously approved by the regulator?**

13 A. No. In order to achieve its financial expectations, the utility must still actively
14 manage its costs relative to the levels approved in its last rate case to achieve its
15 financial expectations. The re-establishment of the utility's sales levels that I just
16 described only takes gas volumes out of the ratemaking equation. It does not
17 eliminate any of the utility's responsibilities to prudently manage the business
18 factors that are under its control.

19 **D. Recent Activities in Delaware Related to Revenue Decoupling**

20 **Q. What has been the recent experience in Delaware with regard to revenue**
21 **decoupling for gas utilities?**

22 A. In March 2007, the Commission initiated Regulation Docket No. 59 to consider
23 whether to implement a revenue decoupling mechanism for the electric and
24 natural gas distribution utilities, and if so, the design of such a revenue

1 decoupling mechanism. In July 2007, Chesapeake proposed a Revenue
2 Normalization Mechanism (RNM) as an element of its base rate filing in PSC
3 Docket No. 07-186. Under the settlement in that proceeding, the Company's
4 proposed revenue normalization, conservation programs, and conservation cost
5 recovery mechanisms would not then be implemented. Rather, Chesapeake
6 deferred the pursuit of an RNM pending the outcome of the revenue decoupling
7 issues being explored by the Commission in Regulation Docket No. 59.

8 **Q. What was the outcome of Regulation Docket No. 59?**

9 A. In the initial set of comments filed in 2007, all parties agreed that the Commission
10 was authorized to depart from traditional rate base regulation pursuant to 26 Del.
11 C. § 201(d) if such departure is found to promote just and reasonable rates. In
12 Order No. 7420, issued in September 2008, the Commission adopted the
13 recommendations of the proceeding's Hearing Examiner, which among other
14 policy matters, recommended that the Commission should investigate the
15 potential implementation of a revenue decoupling mechanism for each utility in
16 the context of the respective company's next base rate case proceeding.
17 Consistent with the Commission's findings in Order No. 7420, Chesapeake has
18 now included its current RNA proposal in the instant base rate filing.

19 E. Chesapeake's Proposed Revenue Normalization Adjustment ("RNA")
20 Mechanism

21 **Q. Please summarize the structure of the Company's decoupling proposal.**

22 A. The Company's decoupling proposal, the RNA mechanism, is designed to
23 stabilize the level of margin revenues that are provided by customers to the
24 Company on an annual basis. The proposal will periodically adjust the

Company's distribution service rates to recover the margin revenues per customer, as established in this general rate case, that fluctuate due to variances in gas volumes caused primarily by weather, energy efficiency gains and conservation efforts by its customers. The RNA mechanism will apply to the Residential Service Rate Schedules RS-1 and RS-2, and General Service Rate Schedule GS; as well as the relative expansion tariffed rates for those three schedules; RS-1 Expansion, RS-2 Expansion, and GS Expansion. These are the customer classes that have exhibited weather sensitivity and volatility in use per customer, as shown earlier in Exhibit RJA-7. The Company proposes to identify the RNA as a separate line item on the bill as either a credit or a surcharge.

Q. How will the Revenue Normalization Adjustment be determined?

A. The target margin revenues will consist of the Commission authorized margin revenue per customer levels determined in this general rate case for each of the applicable classes. Each Quarter the company will file a worksheet comparing the targeted margin per customer with the actual margin per customer and calculate the over or under collection that resulted for each class, which will then be combined into an overall over or under collection. In the case of an over collection this amount will be credited to the customers in those six classes through a negative RNA Rate. Alternatively, in the case of an under collection a surcharge will be assessed through a positive RNA Rate. The aim of either is to match the actual margin per customer with the authorized margin per customer set in this rate proceeding.

Mechanically, the RNA Adjustment is determined through the following series of calculations:

1. Actual Margin per Customer for Month_n and Rate Class_i – Targeted
Normalized Margin per Customer for Month_n and Rate Class_i =
Difference per Customer for Month_n and Rate Class_i
2. Difference per Customer for Month_n and Rate Class_i x Customer
Count for Month_n and Rate Class_i = Over or Under Collection for
Month_n and Rate Class_i
3. Total Over or Under Collection for Quarter = Sum of Over or Under
Collection for All Six Rate Classes for Three Months of the Quarter
4. Current Quarter RNA Adjustment = Total Over or Under Collection for
Quarter / Projected Sales Volume Over Next 12 Months for All Six
Rate Classes
5. Total RNA Adjustment = Current Quarter RNA Adjustment + Last
Three Quarters RNA Adjustment + Annual True-Up
6. Annual True-Up = Difference between Projected RNA Collection and
Actual RNA Collection for Past 12 Months / Projected Sales Volume
Over 12 Months for All Six Rate Classes

Q. Have you prepared an example Exhibit that demonstrates these calculations?

A. Yes. Exhibit RJA-8 provides an example that is based on a hypothetical 2014 2nd Quarter filing utilizing some actual data from 2014. The quarterly filing is depicted on page 1 of the Exhibit. The first section (lines 1 through 3) provides the current RNA Adjustment, which is the combination of the current quarter, the last three quarters, and the previous year's annual true-up. The second section (lines 4 through 8) provides the reconciliation of the past quarters third month

1 between estimated and actual.²² The third section (lines 9 through 13) provides
2 details on targeted versus actual margin per customer for all six rate classes for
3 the current quarter's three months; with the first two being actual and the last
4 being estimated. Lastly, the fourth section (lines 14 through 28) details the
5 projected 12 months of sales volume that is used as the denominator in the
6 quarterly RNA Adjustment calculation. Page 2 of the Exhibit also includes a
7 schedule showing a hypothetical annual true-up filing based on data from 2012
8 and 2013. As described above, the annual true-up simply compares the
9 projected surcharge or credit for the 12 months to the actual amounts credited or
10 collected. The resulting 12 months over or under is then divided into 12 months
11 of projected volume sales to develop the annual true-up RNA adjustment.

12 **Q. Have you evaluated the expected performance of the proposed RNA**
13 **adjustment mechanism based on the Company's recent experience with**
14 **weather variability and use per customer?**

15 A. Yes. Exhibit RJA-9 illustrates the results of a simulation of the operation of the
16 RNA Adjustment Account and the determination of the RNA rates for Rate
17 Schedule Nos. RS-1, RS-2, and GS during the six-year period 2009 - 2014.
18 Customer billing adjustments under the RNA were computed for the average
19 customer in each of these rate classes as if the RNA was in effect during this six-
20 year period. The simulation used as a base the margin and customer levels for
21 these classes that were authorized in the Company's last general rate case and

²² This is needed due to the last month of data for each quarter being estimated as part of the filing rather than being based on actual (i.e., accounts for the one month lag needed for collection of data and filing of this quarterly report).

1 the actual margin revenue per customer by class from the Company's results of
2 operations.

3 **Q. Please describe the results of your analysis for the Company's Rate**
4 **Schedule Nos. RS-1, RS-2 and GS.**

5 A. The analysis summarized on Exhibit RJA-9 presents the combined results of a
6 simulation of the monthly deferrals in the RNA Deferral Account under RNA for
7 these customers and the resulting quarterly RNA adjustments (column H). The
8 resulting quarterly RNA rate adjustments in year one (2009) ranged from \$0.033
9 per ccf in the 2nd Quarter, \$0.020 per ccf in the 3rd Quarter and \$0.038 per ccf in
10 the 4th Quarter. At the end of year one, the balance in the Deferral Adjustment
11 Account was an over-collection of \$370,514 (column K). When spread over the
12 projected ccf for the eligible customer classes over the succeeding twelve month
13 period, the adjustment would be -\$0.016 per ccf. As a point of reference, the
14 average monthly gas bill of the average-sized RS-2 customer is approximately
15 \$68.05, at current rates.

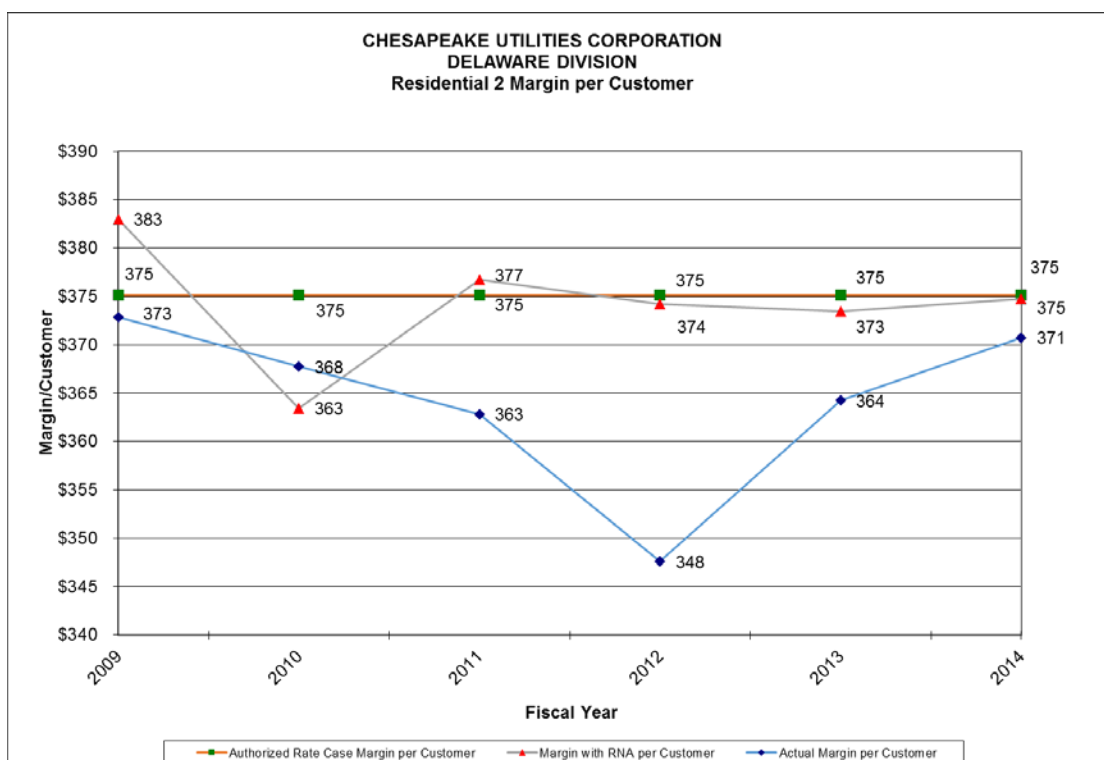
16 Continuing with the simulation, the quarterly adjustments over the entire
17 six-year simulation period ranged from \$0.066 per ccf to -\$0.008 per ccf (column
18 H).

19 **Q. What were the year-end balances in the RNA Adjustment Account for the**
20 **remaining years of the six-year simulation?**

21 A. The balances in the RNA Adjustment Account for the annual "true-up" at the end
22 of years two through six were \$381,227 (2010), -\$12,780 (2011), \$84,751
23 (2012), \$18,672 (2013), and -\$41,005 (2014), respectively. These deferral
24 balances translate into RNA per ccf annual true-up adjustments of \$0.016, –

\$0.001, \$0.003, \$0.001, and –\$0.001, respectively (see Exhibit RJA-9, column B, Annual Summary section). The following graph from Exhibit RJA-7 includes the impact of the RNA on the recovery of the Commission authorized margin per customer from the Residential RS-2 class. As can be seen after the initial rolling in of the mechanism during 2009 and 2010 the margin per customer more closely matches the target set in the Company’s past rate case.

Table 6 – Margin per Customer with RNA



Q. What has been Chesapeake’s experience with revenue decoupling in its Maryland natural gas service territory?

A. As part of Chesapeake Utilities Corporation – Maryland Division’s (“ the Maryland Division”) 2006 base rate case, the Maryland Public Service Commission authorized the Maryland Division to implement a revenue normalization adjustment mechanism similar in structure to that now proposed by the Company

1 in its Delaware base rate filing.²³ The revenue normalization adjustment has
2 since been included in the calculation of the Maryland Division's quarterly Gas
3 Sales Service Rate (Rate Schedule GSR).

4 **VII. Conclusion**

5 **Q. Please summarize how the interests of Chesapeake and its customers are**
6 **served by implementing the Company's RNA proposal?**

7 A. There are significant benefits to both Chesapeake and its customers from
8 implementing the Company's proposed RNA, including:

- 9 1. The RNA will break the link between the gas consumption of the
10 Company's customers and its margin recovery and result in a better
11 alignment of the interests of Chesapeake and its customers.
- 12 2. The RNA will address factors beyond the Company's control that
13 contribute to under recovery of costs and the inability to achieve the level
14 of returns that have been authorized by the Commission.
- 15 3. Under the RNA, Chesapeake will be able to promote energy efficiency
16 programs for its customers, without the real margin losses associated with
17 the resulting decline in gas use per customer.
- 18 4. With the implementation of the RNA, customers will pay each year
19 approximately the same amount for gas delivery service as if the
20 Company had experienced normal weather, which is the same basis upon
21 which the Commission establishes Chesapeake's base rates. Ultimately,
22 the RNA will result in a customer's annual bill more accurately reflecting

²³ Maryland PSC Order in Case No. 9062, dated September 26, 2006.

1 the margin recovery amounts approved by the Commission in this rate
2 case, while customers will recognize the results of their energy
3 conservation efforts in the amount they pay for the gas commodity.

4 **Q. Does this conclude your direct testimony?**

5 A. Yes.

Ronald J. Amen

Mr. Amen has over thirty-five years of combined experience in utility management and consulting in the areas of regulatory affairs, resource planning, organizational development, distribution operations and customer service, marketing and sales, and systems administration. He has particular expertise in the following areas: regulatory policy, strategy and analysis; resource strategy, planning and financial analysis; cost allocation and pricing issues; business process design and organizational structures; and expert witness testimony. Prior to joining Black & Veatch, Mr. Amen's consulting experience included Concentric Energy Advisors, Inc. and Navigant Consulting, Inc. His prior utility experience includes Manager of Federal Regulatory Affairs at Puget Sound Energy, Inc., Director of Rates at Washington Natural Gas Company, Regional Director - Operations and Director – Rates for Indiana Energy (now Vectren), and management positions in Information Systems and Distribution Operations at Ohio Valley Gas Corporation.

PROJECT EXPERIENCE

REGULATORY POLICY, STRATEGY AND ANALYSIS

Southwestern Electric/Gas Utility

Provided case management, revenue requirement, cost of service and rate design support for a general rate cases in the utility's two State regulatory jurisdictions. Issue management and policy development included an electric fuel and purchased power cost mechanism, recovery of environmental remediation costs for a coal-fired power plant, and the valuation of renewable energy credits related to a wind power facility.

Confidential Energy Company

Provided due diligence on behalf of client related to the purchase of a gas/electric utility, including a review of the regulatory and market related assumptions underlying the client's valuation model, resulting in the validation of the model and identification of key business risks and opportunities.

Confidential Energy Company

Provided regulatory due diligence support for client related to a proposed merger with a multi-jurisdictional gas/electric company, including an evaluation of the regulatory landscape in the various applicable State jurisdictions, recent regulatory decisions, and current regulatory issues.

Confidential Energy Company

Performed due diligence on behalf of a confidential energy company client related to the acquisition of a U.S. interstate pipeline, involving a market assessment related to its customer contracts and their prospective alternatives.

DIRECTOR

Specialization:
Financial, regulatory, strategic, operations and litigation support

Office Location
Redmond, WA

Education

- B.S., Business Administration (Finance and Economics), College of Business Administration, University of Nebraska, 1978

Professional Associations

- American Gas Association
- Southern Gas Association

Year Career Started

1978

Year Started with B&V

2013

Eastern Electric/Gas Utility

Provided management with an evaluation of its line extension practices for both its gas and electric services and an earnings impact assessment using a proprietary evaluation model. Conducted a workshop for management on the results of the evaluation and recommendations for consideration in the areas of revenue enhancements, modification of internal policies and procedures and construction cost control areas.

Eastern Gas Utility

Provided management with an evaluation of the policies, procedures and tools presently used in its new customer addition process, an assessment of the impact of new customer growth on NOI, and regulatory solutions to accelerate recovery of new customer costs that best meet the regulatory requirements of its three state jurisdictions.

Canadian Gas Utility

Engaged to assist with the development of a Gas Transmission asset ownership strategy. The project included researching examples from other jurisdictions in North America for transmission ownership structures, the supporting rationale, and the resulting regulatory treatment.

Eastern Gas Utility |

Provided expert witness testimony on the subject of new area expansion programs in the U.S. for the client's general rate case proceeding. As part of a negotiated settlement of the case, the client was permitted to establish a new area expansion pilot program.

Pacific Northwest Electric/Gas Utility

Redesigned gas line extension policy based on financial investment criteria, standardized construction costs, and revenue contributions derived from the client's residential end-use data (building type/size/vintage, appliance type, etc.). Introduced a new customer rate option for customers whose facilities extensions did not meet the target rate of return requirement, which significantly reduced earnings attrition caused by rapid customer growth. In a later general rate proceeding, testimony support was provided regarding the modifications and revisions to the facilities extension program.

RESOURCE PLANNING, STRATEGY AND FINANCIAL ANALYSIS**Western Canadian Gas Utility**

Retained to help develop a gas supply incentive mechanism in cooperation with the BCUC staff and the Company's other stakeholders. Provided an independent analysis of the utility's management of pipeline and storage capacity and supply. Part of this work entailed a review of the major markets in which the utility transacted, reviewing the size of trading activity at the major market hubs and reviewing the price indices for these markets.

Western Electric Utility

Engaged as a member of a consultant team that served as the independent evaluator in a competitive solicitation for non-intermittent generation resources. Jointly recommended by the utility client, the staff of the utility commission, and the state attorney general, the consulting team acted as an agent of the public utility commission monitoring and overseeing the solicitation, which included reviewing the request for proposals and solicitation process, including provisions of the PPA, preliminary review (economic and contractual) of bids received from the request for proposals, initial modeling of bids for screening, selection of bidders with whom to conduct negotiations and oversight of the negotiation process, and the ultimate selection of the winning bid. Provided due diligence review of all input data, preliminary and final model output, and output summaries. The team produced bi-weekly confidential reports to the commission regarding the process and its results.

Pacific Northwest Gas Utility

Assisted with the development of its long-term Integrated Resource Plan (IRP) for its Oregon and Washington service territories. The IRP includes the evaluation of incremental inter- and intra-state pipeline capacity, underground storage, and two proposed LNG plants under development in the region.

Pacific Northwest Electric/Gas Utility

Engaged to assist the client with the development of a natural gas resource efficiency and direct end-use strategy, an interdepartmental initiative focused on preparing a natural gas resource efficiency plan that optimizes customers' end-use energy consumption while furthering corporate customer, financial, environmental, and social responsibilities.

Pacific Northwest Electric/Gas Utility

As part of a review of a gas procurement strategy and hedging analytics, provided gas LDC case studies for gas procurement and risk management practices, including identification of risk management best practices across the industry.

Pacific Northwest Electric/Gas Utility

Provided resource planning strategy and analysis for the Company's Least Cost Plan, including a review of the company's underlying 20-year electric and gas demand forecasts.

Pacific Northwest Electric/Gas Utility

Engaged as a member of a consulting team serving as the client's financial advisor for the acquisition of new electric power supply resources. Conducted a multi-track solicitation process for and evaluation of generation assets and purchase power agreements. Provided regulatory support for the acquisition in a subsequent power cost rate proceeding.

Midwestern Electric/Gas Utility

Provided an evaluation of the functions provided by the utility's underground storage facilities for the purpose of assigning cost responsibility to the various customer groups, which had been challenged by parties in the company's general rate proceeding.

Southwestern Electric/Gas Utility

Conducted an evaluation of two gas operating subsidiaries, their capital planning, asset management strategy, and customer growth practices. Formulated a strategy for improving the profitability of the entities, with regulatory strategies for its two jurisdictions that included a special cost recovery mechanism for accelerated infrastructure replacement programs.

Midwestern Municipal Electric Utility

Engaged as a member of three-consultant team that established a self-sustaining energy services business to replace its rebate-based, demand-side management programs. Area of focus included the finance and administrative functions as well as the employee evaluation and recruitment process.

European Electric Utility

Provided strategy and analysis support, including a review of the natural gas value chain in the U.S., as part of an overall project scope focusing on the evaluation of retail multi-energy strategies for the client.

COST ALLOCATION, PRICING ISSUES AND RATE DESIGN**Southwestern Electric Utility**

Retained to conduct a study to estimate the conservation effect of replacing its existing electric residential rate design with an alternative rate design such as an inverted block rate design. Reviewed inclining block rate structures that have actively been employed in other jurisdictions and also reviewed technical and academic literature to assess the elasticity of electricity demand for residential customers in the U.S. Southwest. Analyzed 2009-2011 residential data to determine what sort of conservation effect the Company may expect by implementing an inclining block rate structure. Provided an overview of alternative rate structures which may also promote conservation effects, such as seasonal rates, three-part rates and time-of-use ("TOU") rates, and considered the competing incentives of promoting conservation and cost recovery, without specific rate mechanisms to address this conflict.

Northeastern Electric Utility

Supported utility in its decoupling proposal for the Company's general rate case. Work included: (1) research on the financial implications of decoupling; (2) identification of decoupling mechanism details to address company and regulatory requirements and objectives; (3) identification of rate adjustment mechanisms that would work together with the Company's proposed decoupling mechanism; and (4) preparing pre-filed testimony and testifying at

hearings in support of the Company's decoupling and rate adjustment proposals. The proposed rate adjustment mechanisms included an inflation adjustment mechanism based on a statistical analysis, and a capital spending mechanism to recover the costs associated with capital plant investment targeted to improving service reliability.

Northeastern Electric/Gas Utility

Conducted class allocated cost of service studies for the client's New England natural gas operations. This included combined gas cost of service studies for the consolidation of four gas service territories into two gas utility subsidiaries. During interrogatories, performed four separate allocated cost of service studies for each gas service territory. Work included reconfiguring the Company's commercial and industrial customer classes according to size of load and customer-related facilities. Served as an expert witness on behalf of the client in consolidated general rate cases before the Massachusetts Department of Public Utilities.

Midwestern Energy Company

Conducted class allocated cost of service studies for the client's natural gas (including two other affiliate gas utilities) and electric operations. Work included reconfiguring the Company's commercial and industrial customer classes according to size of load and customer-related facilities. Rate design was modernized to recover a greater portion of fixed costs via fixed monthly customer and demand based charges, a transition to a "Straight-Fixed Variable" form of rate design. Industry research was provided on alternative rate designs for the electric service, including Time-of-Use rates and Critical Peak Pricing. Served as an expert witness on behalf of the client in three general rate cases before the Indiana Utility Regulatory Commission.

Midwestern Electric Utility |

Conducted class allocated cost of service studies for a Midwestern electric utility's Minnesota electric operations. Work included reconfiguring the Company's customer classes for cost of service purposes to collapse end-use based classes with the classes to which they would be eligible. Cost of service studies were performed on a before-and-after basis for the existing and proposed classes. The cost of service studies included a Fixed/Variable study for Production costs, and a Primary – Secondary study for poles, transformers and conductors. Performed a Time of Use analysis to determine the appropriate rate differentials for its Peak and Off-peak rates. Served as an expert witness on behalf of the client in a general rate case before the Minnesota Public Service Commission.

Midwestern Gas Utility

Provided cost of service and rate design support for the Company's general rate case filings in its two State jurisdictions and in support of a Section 311 transportation filing before the Federal Energy Regulatory Commission (FERC).

Provided related research, design and expert witness testimony in support of a Revenue Decoupling mechanism in one jurisdiction and a Weather Normalization Adjustment (WNA) mechanism in the other jurisdiction, along with a significant increase in fixed charges and the introduction of demand charges for the Company's largest customer classes. Conducted a pre-filing "Decoupling" workshop for the utility commission staff.

Pacific Northwest Gas Utility

Provided Cost of Service and Rate Design support for the utility's general rate case, including expert witness testimony. Assisted the client with an earlier revenue neutral reconfiguration of its Commercial / Industrial sales and transportation service offerings. The earlier initiative included collaborative work with an industrial customer stakeholder group.

Midwestern Energy Company

Assisted the client with the pursuit of alternative regulatory initiatives in conjunction with company's expansion of its energy efficiency and conservation programs. Supported the research, design, and selection of Revenue Decoupling mechanisms for its two regulated gas utility subsidiaries. Served as the cost of service witness in two general rate case filings.

Pacific Northwest Electric/Gas Utility

In two general rate proceedings, provided Cost of Service and Rate Design support, including expert witness testimony in support of the utility's proposed gas Revenue Decoupling mechanism. Conducted research on accelerated cost recovery mechanisms for Infrastructure Replacement, Electric Power Cost Adjustment mechanisms and Gas Supply Pricing Options of utilities in North America.

U.S. Energy Company

Engagement director for Cost of Service and Rate Design support for the general rate proceedings of the Company's Midwestern and Northeastern gas utilities, including expert witness testimony on cost of service, rate design and declining use-per-customer. Rate design support included a proposed ten-year weather normal, and the introduction of straight-fixed variable rates (Midwestern LDC). This was the third consecutive rate case engagement for the Northeastern LDC.

Midwestern Electric/Gas Utility

Assisted the Company with the preparation of a retail customer choice filing for one of its gas distribution jurisdictions. Provided support for the development ancillary service costs, the design of program cost recovery mechanisms, and tariff structure for service offerings.

Western Canadian Gas Utility

Served as engagement manager for cost of service and rate design support. Represented the client in its capital investment recovery proceeding for a major

pipeline project, a cross-provincial transmission pipeline. The three-phase project included regulatory strategy support for executive management regarding the integration of the pipeline proposal with the utility's PBR and unbundling initiatives and a global rate design proceeding. Cost of service support included a review of its gas cost portfolio allocation to firm sales customer classes, a survey of the trends in gas cost allocations and incentive mechanisms in North America, and serving as a facilitator for an all-party cost allocation and rate design workshop.

Northeastern Gas Utility

Served as engagement manager for cost of service and rate design support, including expert witness testimony, for the client's participation in a state-wide gas unbundling proceeding. Subsequent projects included analysis of the client's demand forecasting capability, implementation of an algorithm-based balancing service and a cost of service studies related to transportation related administrative costs, resources supporting system reliability and recovery of potentially stranded costs.

Midwestern Gas Transmission/Distribution Utility

Engagement manager for cost of service and rate design support, including expert witness testimony, for client's asset separation and unbundling proceeding as well as a subsequent general rate case. Integrated gas utility (wellhead to burner-tip) unbundled upstream services (production and gathering, storage, and intra-state transmission) from its distribution business.

South American Gas Utility

For an affiliate of a major U.S. energy company, conducted a cost of service and rate design training for management personnel engaged in the planned restructuring of the rate-setting processes for three gas utilities in Brazil.

Canadian Energy Marketer

Provided consulting support and position paper on cost allocation and pricing issues for Canadian gas marketer's participation in a restructuring collaborative sponsored by the intra-provincial pipeline and local distribution utility in Saskatchewan.

Pacific Northwest Gas Utility

Negotiated and obtained regulatory approval of a 20-year contract with the company's largest industrial customer, which avoided bypass of 14 primary plant facilities within the service territory, prevented loss of annual throughput, and maintained contribution to system costs.

Pacific Northwest Gas Utility

Obtained regulatory approval of unbundled, cost-based transportation services to meet large commercial and industrial customer needs and re-designed rates of other classes to better align with new cost of service methodology. The

project required the facilitation of a collaborative working group of key industrial customers, customer associations, commission staff, and consumer advocacy agencies.

Western Energy Company

Provided case strategy and cost of service support for the biennial cost allocation proceedings of two utility subsidiaries of the Company.

UTILITY SYSTEM OPERATIONS AND ORGANIZATIONAL DEVELOPMENT

Pacific Northwest Electric/Gas Utility

Engaged to perform a review of its project management and capital spending authorization processes (CSA). The overall project objectives were to educate project management (PM) staff as to the importance and relevance of regulatory prudence standards; evaluate existing PM processes along with newly introduced corporate CSA processes; and propose PM and corporate process and documentation efficiencies. This was accomplished through 1) a situational assessment and risk review; 2) analysis of project management practices; and 3) development of common documentation for the CSA and PM processes.

Pacific Northwest Electric/Gas Utility

Engaged to perform a review of how the company compares to similarly-situated utilities in the areas of the underlying capitalized costs related to new customer additions (“New Business Investment”) and the management policies and practices that influence the new business capital investment. Examined the inter-relationships of our client’s management policies and practices in the functional areas related to New Business Investment and developed an understanding of the nature of the costs captured by the New Business Investment process. Benchmarked those costs relative to peers’ cost factors and management capital expenditure practices and performed targeted peer group interviews on our client’s behalf. The review identified certain trends and/or inter-relationships between management policies and practices, as well as other exogenous factors, and the resulting impact on New Business Investment.

Pacific Northwest Electric/Gas Utility

Engaged to perform a review of its electric transmission planning and project prioritization process. The emphasis of the review was to determine if the process implemented by the client could be expected to meet the regulatory standard of prudence, as adopted by the state regulatory commission. Reviewed the prudence standard adopted by the commission in several recent regulatory proceedings, supplemented by our knowledge of the prudence standard adopted at a national level and in other states. The engagement included two phases: 1) an initial situation assessment of the existing process employed by the client, and 2) a review of the historic implementation of that process by reviewing a sampling of transmission projects. Compiled and provided examples of capital planning documents and procedures, viewed as “Best Practices,” from other electric utilities and other relevant transmission entities.

Midwestern Energy Company

Provided audit support for one of the Company's gas and electric utilities during a management audit ordered by one of its two regulatory jurisdictions.

Conducted a pre-audit of distribution operations and resource planning process to provide the client with potential audit issues. Assisted the client throughout the audit process in responding to information requests, preparing Company executives and management personnel for audit interviews, and management of preliminary audit issues and findings by the independent audit firm.

Midwestern Energy Company

Performed a number of benchmark analyses to compare each of the client's A&G and O&M expenses, on a per-customer basis, to various peer groups conducted for the client's natural gas and electric operations. Analyses were performed for natural gas utilities, electric utilities, and combination utilities with both electric and gas operations. Various iterations of the analyses were prepared to make the peer group of utilities more comparable to the characteristics of the client's utility operations. Served as an expert witness on behalf of the client in a consolidated general rate case proceeding of its three utility subsidiaries before the Illinois Commerce Commission.

Western Multi-state Water Utility

Engaged to manage the implementation of a new revenue decoupling mechanism into its 24 separate rate areas. Changes to the following processes and related procedures were required: rate setting, meter reading, billing, revenue and financial reporting. Microsoft Project was used to manage and track the implementation throughout the following organizations: Rates, Accounting, Information systems, Communications, and Customer Service.

Northwestern Electric/Gas Utility

Conducted an evaluation of the Company's key accounts (Top 100) and business account services organization. Work included compilation of "best practices" from peer group utilities, recommendations related to staffing levels, roles and responsibilities, and the interrelationships with the customer service (call center), revenue management and community relations organizations of the utility.

Eastern Gas Utility

Provided market monitoring strategies and action plans based on an analysis of competitive threats and discussions with the client's customers and other utilities facing similar issues. Intent of recommended monitoring strategies and corresponding action plans to result in increased customer growth (meters) and/or customer retention, including a prioritized implementation approach to the monitoring strategies and action plans, based on benefits to the client and time to implement.

Southern Electric/Gas Utility

Conducted an evaluation of two gas operating subsidiaries, their capital planning, asset management strategy, and customer growth practices. Formulated a strategy for improving the profitability of the entities, with regulatory strategies for its two jurisdictions that included a special cost recovery mechanism for accelerated infrastructure replacement programs.

Midwestern Municipal Electric Utility

Engaged as a member of three-consultant team that established a self-sustaining energy services business to replace its rebate-based, demand-side management programs. Area of focus included the finance and administrative functions as well as the employee evaluation and recruitment process, which involved establishing the organization structure, span of control, job descriptions, qualifications, and salary ranges. We worked closely with the head of new organization, the municipal utility management, and the relevant municipal government agencies; and facilitated numerous management and stakeholder meetings.

Midwestern Electric/Gas Utility

Provided research and consulting support to establish performance metrics and benchmarks from peer group companies for the client's performance management system.

Midwestern Energy Company

For a Midwestern energy company, Mr. Amen was responsible for marketing, customer service, gas distribution system construction, operation and maintenance, for a regional operating service territory of the company's gas utility. Among other gas operations responsibilities, Mr. Amen managed a field sales force responsible for sales plan development, including market analysis, program design, and cost-effectiveness evaluations for the following customer segments and/or trade alley groups: residential home builders and commercial developers; HVAC contractors; large commercial and industrial key accounts; public institutions; and governmental facilities.

Business Process Redesign and Organizational Restructuring – While serving in the aforementioned utility management capacity as Regional Director, Mr. Amen managed the successful integration of an acquired gas utility company into a regional operation.

Re-engineering Operations – Mr. Amen was a member of a management team that restructured the company's field organization into six regional operations (reduced from 26 district offices) resulting in a streamlined organization, which provided enhanced customer service while substantially reducing operating costs. The nine core management team members facilitated the work of over forty individual study groups during the eighteen-month transition period. This

same management team redesigned the capital budgeting process and established new standards governing the use of construction contractors.

EXPERT WITNESS TESTIMONY PRESENTATION

- Arkansas Public Service Commission
- British Columbia Utility Commission (Canada)
- Connecticut Department of Public Utility Control
- Delaware Public Service Commission
- Illinois Commerce Commission
- Indiana Utility Regulatory Commission
- Massachusetts Department of Utilities
- Minnesota Public Utilities Commission
- Missouri Public Service Commission
- New Brunswick Energy and Utilities Board (Canada)
- Oklahoma Corporation Commission
- Oregon Public Utility Commission
- Pennsylvania Public Utility Commission
- Washington Utilities and Transportation Commission
- Federal Energy Regulatory Commission

PROFESSIONAL HISTORY

Black & Veatch Corporation (Present)

Director

Concentric Energy Advisors, Inc. (2007 – 2013)

Vice President

Navigant Consulting, Inc. (1997 – 2007)

Director

Puget Sound Energy, Inc. (1997)

Manager – Federal Regulatory Affairs

Washington Natural Gas Company (1993 – 1997)

(merged with Puget Power and Light to form Puget Sound Energy in 1997)

Director – Rates and Tariffs

Indiana Energy (now Vectren) (1984 – 1993)

Regional Director – Distribution Operations

Director – Rates

Ohio Valley Gas Corporation (1978 – 1984)

Data Processing Manager

Assistant District Manager – Distribution Operations

SELECTED PUBLICATIONS/PRESENTATIONS

- “Enhancing the Profitability of Growth,” American Gas Association, Rate and Regulatory Issues Seminar, April 4 - 7, 2004
- “Regulatory Treatment of New Generation Resource Acquisition: Key Aspects of Resource Policy, Procurement and New Resource Acquisition,” Law Seminars International, Managing the Modern Utility Rate Case, February 17 - 18, 2005
- “Managing Regulatory Risk – The Risk Associated with Uncertain Regulatory Outcomes,” Western Energy Institute, Spring Energy Management Meeting, May 18 - 20, 2005
- “Capital Asset Optimization – An Integrated Approach to Optimizing Utilization and Return on Utility Assets,” Southern Gas Association, July 18 - 20, 2005
- “Resource Planning as a Cost Recovery Tool,” Law Seminars International, Utility Rate Case Issues & Strategies, February 22 - 23, 2007
- “Natural Gas Infrastructure Development and Regulatory Challenges,” Southeastern Association of Regulatory Utility Commissioners, Annual Conference, June 4 – 6, 2007
- “Resource Planning in a Changing Regulatory Environment,” Law Seminars International, Utility Rate Cases – Current Issues & Strategies, February 7 - 8, 2008
- “Natural Gas Distribution Infrastructure Replacement,” American Gas Association, Rate Committee Meeting and Regulatory Issues Seminar, April 11 – 13, 2010
- “Building a T&D Investment Program to Satisfy Customers, Regulators and Shareholders,” SNL Webinar, March 27, 2014
- “Utility Infrastructure Replacement; Trends in Aging Infrastructure, Replacement Programs and Rate Treatment,” Large Public Power Council, Rates Committee Meeting, August 14, 2014

DATED: DECEMBER 21, 2015

STATE OF DELAWARE)
)
COUNTY OF KENT)

AFFIDAVIT OF RONALD AMEN

RONALD AMEN, being first duly sworn according to law, on oath deposes and says that he is the witness whose testimony appears as "Chesapeake Utilities Corporation, Delaware Division, Direct Testimony of Ronald Amen"; that, if asked the questions which appear in the text of the direct testimony, he would give the answers that are therein set forth; and that he adopts this testimony as his sworn direct testimony in these proceedings.


Ronald Amen

Then personally appeared this 21st day of December 2015 the above-named Ronald Amen and acknowledged the foregoing Testimony to be his free act and deed.
Before me,


Notary Public
My Commission Expires: 7-17-18



**Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016**

**Exhibit RJA-1
Apportionment of
Revenue Requirement**

| | A | B | C | D | E | F | G | H | I |
|------|--------------------------|------|----------------------------------|---|--------------------------------|-------------------|-------------------------------|---|---------------------------|
| Line | Class | | Pro Forma Delivery Revenue | Proposed Revenue for Equal Rates of Return | Revenue to Cost Ratio | ROR at Current | Relative Rate of Return | ACOSS Proposed Increase (Decrease) @ 8.55% ROR | ACOSS Rate Increase |
| 1 | System Total | | \$ 22,223,119 | \$ 26,964,933 | 0.82 | 4.61% | 1.00 | \$ 4,741,815 | 21.34% |
| 2 | Residential Service -1 | RS-1 | 824,888 | 1,824,742 | 0.45 | -4.84% | -1.05 | 999,855 | 121.21% |
| 3 | Residential Service - 2 | RS-2 | 13,899,067 | 19,070,205 | 0.73 | 2.25% | 0.49 | 5,171,138 | 37.20% |
| 4 | General Service | GS | 1,469,623 | 1,908,282 | 0.77 | 3.53% | 0.77 | 438,660 | 29.85% |
| 5 | Medium Volume Service | MVS | 890,630 | 1,014,740 | 0.88 | 6.16% | 1.34 | 124,110 | 13.94% |
| 6 | Large Volume Service | LVS | 2,114,683 | 1,536,873 | 1.38 | 15.32% | 3.33 | (577,811) | -27.32% |
| 7 | High Load Factor Service | HLFS | 2,860,886 | 1,584,634 | 1.81 | 23.76% | 5.16 | (1,276,253) | -44.61% |
| 8 | Gas Lighting Residential | GLR | 705 | 1,003 | 0.70 | 1.35% | 0.29 | 298 | 42.29% |
| 10 | Interruptible Service | IS | 162,637 | 24,454 | 6.65 | 133.69% | 29.03 | (138,183) | -84.96% |

Note: Column C, D, and N from ACOSS Results (See Exhibit JDT-1)

**Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016**

**Exhibit RJA-1
Apportionment of
Revenue Requirement**

| | A | B | J | K | L | M | N | O |
|------|--------------------------|------|------------------------------|------------------------------------|-------------------------------|-------------------------------|--|------------------------------------|
| Line | Class | | Target Revenue to Cost | Proposed Increase (Decrease) | ROR @ Proposed Increase | Relative Rate of Return | Rate Increase @ Proposed Increase | Proposed Apportioned Revenue |
| 1 | System Total | | | \$ 4,741,815 | 8.55% | 1.00 | 21.34% | \$ 26,964,933 |
| 2 | Residential Service -1 | RS-1 | 0.65 | 364,328 | 0.00% | (0.00) | 44.17% | 1,189,216 |
| 3 | Residential Service - 2 | RS-2 | 0.93 | 3,814,419 | 6.89% | 0.81 | 27.44% | 17,713,486 |
| 4 | General Service | GS | 1.00 | 438,660 | 8.55% | 1.00 | 29.85% | 1,908,282 |
| 5 | Medium Volume Service | MVS | 1.00 | 124,110 | 8.55% | 1.00 | 13.94% | 1,014,740 |
| 6 | Large Volume Service | LVS | 1.38 | - | 15.39% | 1.80 | 0.00% | 2,114,683 |
| 7 | High Load Factor Service | HLFS | 1.81 | - | 23.87% | 2.79 | 0.00% | 2,860,886 |
| 8 | Gas Lighting Residential | GLR | 1.00 | 298 | 8.55% | 1.00 | 42.29% | 1,003 |
| 10 | Interruptible Service | IS | - | - | 134.42% | 15.72 | 0.00% | 162,637 |
| | Total | | | \$ 4,741,815 | 150% System Increase= | | 32.01% | |
| | Difference | | | \$ - | 200% System Increase= | | 42.67% | |

Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016

Exhibit RJ-A-2
Rate Design

| Line No. | Customer Class | Proforma Test Period Revenue | | | Proposed Revenues | | Difference | |
|--|----------------------------|------------------------------|--------------|----------------------|-------------------|----------------------|---------------------|------------|
| | | Billing Units | Present Rate | Revenue | Proposed Rates | Revenue | \$ Amount | % Amount |
| Residential Service 1 | | | | | | | | |
| 1 | Customer Charge | 49,764 | \$10.50 | \$ 522,522 | \$15.00 | \$ 746,460 | \$ 223,938 | 43% |
| 2 | First 20 | 371,454 | \$0.607 | \$ 225,473 | \$0.852 | \$ 316,632 | | |
| 3 | Next 30 | 143,691 | \$0.280 | \$ 40,234 | \$0.525 | \$ 75,497 | | |
| 4 | Over 50 | 36,385 | \$0.170 | \$ 6,185 | \$0.415 | \$ 15,115 | | |
| 5 | Volumetric Charge | 551,531 | | \$ 271,892 | | \$ 407,243 | \$ 135,352 | 50% |
| 6 | Total RS1 Revenue | | | \$ 794,414 | | \$ 1,153,703 | \$ 359,290 | 45% |
| Residential Service 1 - Expansion | | | | | | | | |
| 7 | Customer Charge | 1,272 | \$16.50 | \$ 20,988 | \$16.50 | \$ 20,988 | \$ - | 0% |
| 8 | First 20 | 12,049 | \$0.607 | \$ 7,314 | \$0.852 | \$ 10,270 | | |
| 9 | Next 30 | 6,868 | \$0.280 | \$ 1,923 | \$0.525 | \$ 3,609 | | |
| 10 | Over 50 | 1,553 | \$0.170 | \$ 264 | \$0.415 | \$ 645 | | |
| 11 | Volumetric Charge | 20,470 | | \$ 9,501 | | \$ 14,524 | \$ 5,024 | 53% |
| 12 | Total RS1-E Revenue | | | \$ 30,489 | | \$ 35,512 | \$ 5,024 | 16% |
| 13 | RS1 Revenue | | | \$ 824,902 | | \$ 1,189,216 | | |
| Residential Service 2 | | | | | | | | |
| 14 | Customer Charge | 462,000 | \$13.00 | \$ 6,006,000 | \$17.00 | \$ 7,854,000 | \$ 1,848,000 | 31% |
| 15 | First 20 | 6,972,534 | \$0.578 | \$ 4,030,124 | \$0.656 | \$ 4,570,542 | | |
| 16 | Next 30 | 6,467,626 | \$0.319 | \$ 2,063,173 | \$0.397 | \$ 2,564,457 | | |
| 17 | Over 50 | 11,628,211 | \$0.132 | \$ 1,534,924 | \$0.210 | \$ 2,436,188 | | |
| 18 | Volumetric Charge | 25,068,371 | | \$ 7,628,221 | | \$ 9,571,187 | \$ 1,942,966 | 25% |
| 19 | Total RS2 Revenue | | | \$ 13,634,221 | | \$ 17,425,187 | \$ 3,790,966 | 28% |
| Residential Service 2 - Expansion | | | | | | | | |
| 20 | Customer Charge | 5,580 | \$31.75 | \$ 177,165 | \$31.75 | \$ 177,165 | \$ - | 0% |
| 21 | First 20 | 72,951 | \$0.578 | \$ 42,166 | \$0.656 | \$ 47,820 | | |
| 22 | Next 30 | 80,653 | \$0.319 | \$ 25,728 | \$0.397 | \$ 31,979 | | |
| 23 | Over 50 | 149,562 | \$0.132 | \$ 19,742 | \$0.210 | \$ 31,334 | | |
| 24 | Volumetric Charge | 303,167 | | \$ 87,636 | | \$ 111,134 | \$ 23,497 | 27% |
| 25 | Total RS2-E Revenue | | | \$ 264,801 | | \$ 288,299 | \$ 23,497 | 9% |
| 26 | RS2 Revenue | | | \$ 13,899,022 | | \$ 17,713,486 | | |

**Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016**

**Exhibit RJ-A-2
Rate Design**

| | | | | | | | | | | | | |
|------------------------------------|------------------------------|-----------|----------|----|---------|-----------|----|-----------|-----------|---------|---------|-----|
| | General Service | | | | | | | | | | | |
| 27 | Customer Charge | 34,206 | \$26.00 | \$ | 889,356 | \$34.00 | \$ | 1,163,004 | \$ | 273,648 | 31% | |
| 28 | First 20 | 383,908 | \$0.447 | \$ | 171,607 | \$0.506 | \$ | 194,391 | | | | |
| 29 | Next 30 | 420,300 | \$0.278 | \$ | 116,844 | \$0.337 | \$ | 141,788 | | | | |
| 30 | Over 50 | 1,961,018 | \$0.140 | \$ | 274,542 | \$0.199 | \$ | 390,926 | | | | |
| 31 | Volumetric Charge | 2,765,226 | | \$ | 562,993 | | \$ | 727,105 | \$ | 164,112 | 29% | |
| 32 | Total GS Revenue | | | | \$ | 1,452,349 | \$ | | 1,890,109 | \$ | 437,760 | 30% |
| General Service - Expansion | | | | | | | | | | | | |
| 33 | Customer Charge | 176 | \$56.00 | \$ | 9,856 | \$56.00 | \$ | 9,856 | \$ | - | 0% | |
| 34 | First 20 | 1,724 | \$0.447 | \$ | 771 | \$0.506 | \$ | 873 | | | | |
| 35 | Next 30 | 2,053 | \$0.278 | \$ | 571 | \$0.337 | \$ | 693 | | | | |
| 36 | Over 50 | 10,225 | \$0.140 | \$ | 1,432 | \$0.199 | \$ | 2,038 | | | | |
| 37 | Volumetric Charge | 14,003 | | \$ | 2,773 | | \$ | 3,604 | \$ | 831 | 30% | |
| 38 | Total GS-E Revenue | | | | \$ | 12,629 | \$ | | 13,460 | \$ | 831 | 7% |
| General Service - Negotiated | | | | | | | | | | | | |
| 39 | Customer Charge | 24 | \$26.00 | \$ | 624 | \$34.00 | \$ | 816 | \$ | 192 | 31% | |
| 40 | First 20 | 332 | \$0.525 | \$ | 174 | \$0.525 | \$ | 174 | | | | |
| 41 | Next 30 | 461 | \$0.525 | \$ | 242 | \$0.525 | \$ | 242 | | | | |
| 42 | Over 50 | 6,630 | \$0.525 | \$ | 3,481 | \$0.525 | \$ | 3,481 | | | | |
| 43 | Volumetric Charge | 7,423 | | \$ | 3,897 | | \$ | 3,897 | \$ | - | 0% | |
| 44 | Total GS Negotiated Revenue | | | | \$ | 4,521 | \$ | | 4,713 | \$ | 192 | 4% |
| 45 | GS Revenue | | | | \$ | 1,469,499 | \$ | | 1,908,282 | | | |
| Medium Volume Service | | | | | | | | | | | | |
| 46 | Customer Charge | 5,813 | \$65.00 | \$ | 377,845 | \$80.00 | \$ | 465,040 | \$ | 87,195 | 23% | |
| 47 | First 200 | 842,712 | \$0.227 | \$ | 191,296 | \$0.237 | \$ | 200,050 | | | | |
| 48 | Over 200 | 2,661,839 | \$0.115 | \$ | 306,111 | \$0.125 | \$ | 333,763 | | | | |
| 49 | Volumetric Charge | 3,504,551 | | \$ | 497,407 | | \$ | 533,813 | \$ | 36,406 | 7% | |
| 50 | Total MVS Revenue | | | | \$ | 875,252 | \$ | | 998,853 | \$ | 123,601 | 14% |
| Medium Volume Service - Expansion | | | | | | | | | | | | |
| 51 | Customer Charge | 40 | \$158.75 | \$ | 6,350 | \$158.75 | \$ | 6,350 | \$ | - | 0% | |
| 52 | First 200 | 4,733 | \$0.227 | \$ | 1,074 | \$0.237 | \$ | 1,124 | | | | |
| 53 | Over 200 | 19,347 | \$0.115 | \$ | 2,225 | \$0.125 | \$ | 2,426 | | | | |
| 54 | Volumetric Charge | 24,080 | | \$ | 3,299 | | \$ | 3,549 | \$ | 250 | 8% | |
| 55 | Total MVS Negotiated Revenue | | | | \$ | 9,649 | \$ | | 9,899 | \$ | 250 | 3% |
| Medium Volume Service - Negotiated | | | | | | | | | | | | |
| 56 | Customer Charge | 24 | \$65.00 | \$ | 1,560 | \$80.00 | \$ | 1,920 | \$ | 360 | 23% | |
| 57 | First 200 | 2,667 | \$0.525 | \$ | 1,400 | \$0.525 | \$ | 1,400 | | | | |
| 58 | Over 200 | 5,081 | \$0.525 | \$ | 2,668 | \$0.525 | \$ | 2,668 | | | | |
| 59 | Volumetric Charge | 7,748 | | \$ | 4,068 | | \$ | 4,068 | \$ | - | 0% | |
| 60 | Total MVS Negotiated Revenue | | | | \$ | 5,628 | \$ | | 5,988 | \$ | 360 | 6% |
| 61 | Total MVS Revenue | | | | \$ | 890,529 | \$ | | 1,014,740 | \$ | 124,211 | 14% |

**Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016**

**Exhibit RJA-2
Rate Design**

| | | | | | | | | | | | |
|---------------------------------------|-------------------------------|------------|----------|----|-----------|----------|----|-----------|----|-----------|-----|
| Large Volume Service | | | | | | | | | | | |
| 62 | Customer Charge | 2,467 | \$125.00 | \$ | 308,375 | \$175.00 | \$ | 431,725 | \$ | 123,350 | 40% |
| 63 | First 1000 | 1,862,828 | \$0.326 | \$ | 607,282 | \$0.218 | \$ | 406,436 | | | |
| 64 | Over 1000 | 14,247,133 | \$0.083 | \$ | 1,182,512 | \$0.088 | \$ | 1,257,307 | | | |
| 65 | Volumetric Charge | 16,109,961 | | \$ | 1,789,794 | | \$ | 1,663,743 | \$ | (126,051) | -7% |
| 66 | Total LVS Revenue | | | \$ | 2,098,169 | | \$ | 2,095,468 | \$ | (2,701) | 0% |
| Large Volume Service - Negotiated | | | | | | | | | | | |
| 67 | Customer Charge | 24 | \$125.00 | \$ | 3,000 | \$175.00 | \$ | 4,200 | \$ | 1,200 | 40% |
| 68 | First 1000 | 28,600 | \$0.525 | \$ | 15,015 | \$0.525 | \$ | 15,015 | | | |
| 69 | Over 1000 | - | \$0.525 | \$ | - | \$0.525 | \$ | - | | | |
| 70 | Volumetric Charge | 28,600 | | \$ | 15,015 | | \$ | 15,015 | \$ | - | 0% |
| 71 | Total LVS Negotiated Revenue | | | \$ | 18,015 | | \$ | 19,215 | \$ | 1,200 | 7% |
| 72 | Total LVS Revenue | | | \$ | 2,116,184 | | \$ | 2,114,683 | | | |
| High Load Factor Service | | | | | | | | | | | |
| 73 | Customer Charge | 3,718 | \$75.00 | \$ | 278,850 | \$125.00 | \$ | 464,750 | \$ | 185,900 | 67% |
| 74 | All Consumption | 28,284,815 | \$0.087 | \$ | 2,460,779 | \$0.080 | \$ | 2,269,209 | \$ | (191,570) | -8% |
| 75 | Volumetric Charge | 28,284,815 | | \$ | 2,460,779 | | \$ | 2,269,209 | \$ | (191,570) | -8% |
| 76 | Total HLFS Revenue | | | \$ | 2,739,629 | | \$ | 2,733,959 | \$ | (5,670) | 0% |
| High Load Factor Service - Negotiated | | | | | | | | | | | |
| 77 | Customer Charge | 24 | \$75.00 | \$ | 1,800 | \$125.00 | \$ | 3,000 | \$ | 1,200 | 67% |
| 78 | All Consumption | 161,254 | \$0.525 | \$ | 84,658 | \$0.525 | \$ | 84,658 | \$ | - | 0% |
| 79 | Volumetric Charge | 161,254 | | \$ | 84,658 | | \$ | 84,658 | \$ | - | 0% |
| 80 | Customer Charge | 12 | \$75.00 | \$ | 900 | \$125.00 | \$ | 1,500 | \$ | 600 | 67% |
| 81 | All Consumption | 26,231 | \$0.960 | \$ | 25,182 | \$0.960 | \$ | 25,182 | \$ | - | 0% |
| 82 | Volumetric Charge | 26,231 | | \$ | 25,182 | | \$ | 25,182 | \$ | - | 0% |
| 83 | Customer Charge | 12 | \$75.00 | \$ | 900 | \$125.00 | \$ | 1,500 | \$ | 600 | 67% |
| 84 | All Consumption | 15,000 | \$0.295 | \$ | 4,425 | \$0.295 | \$ | 4,425 | \$ | - | 0% |
| 85 | Volumetric Charge | 15,000 | | \$ | 4,425 | | \$ | 4,425 | \$ | - | 0% |
| 86 | Customer Charge | 12 | \$75.00 | \$ | 900 | \$125.00 | \$ | 1,500 | \$ | 600 | 67% |
| 87 | All Consumption | 17,500 | \$0.295 | \$ | 5,163 | \$0.295 | \$ | 5,163 | \$ | - | 0% |
| 88 | Volumetric Charge | 17,500 | | \$ | 5,163 | | \$ | 5,163 | \$ | - | 0% |
| 89 | Total HLFS Negotiated Revenue | | | \$ | 123,928 | | \$ | 126,928 | \$ | 3,000 | 2% |
| 90 | Total HLFS Negotiated Revenue | | | \$ | 2,863,557 | | \$ | 2,860,886 | \$ | (2,670) | 0% |

Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016

Exhibit RJA-2
Rate Design

| | | | | | | | | | |
|---------------------------------|---|---------|----------|-----------|----------------|----------|------------|-------------------|-------------------|
| Gas Lighting Residential | | | | | | | | | |
| 91 | Customer Charge | 60 | \$11.75 | \$ | 705 | \$16.72 | \$ | 1,003 | \$ 298 42% |
| 92 | Total GLR Revenue | | | \$ | 705 | | | \$ 1,003 | \$ 298 42% |
| Interruptible Service | | | | | | | | | |
| 93 | Customer Charge | 12 | \$935.00 | \$ | 11,220 | \$935.00 | \$ | 11,220 | \$ - 0% |
| 94 | Consumed (July-Dec) | 166,540 | \$0.099 | \$ | 16,487 | \$0.099 | \$ | 16,487 | |
| 95 | Consumed (Jan-June) | 108,630 | \$0.099 | \$ | 10,754 | \$0.099 | \$ | 10,754 | |
| 96 | Volumetric Charge | 275,170 | | \$ | 27,242 | | \$ | 27,242 | \$ 0 0% |
| 97 | Customer Charge | 12 | \$935.00 | \$ | 11,220 | \$935.00 | \$ | 11,220 | \$ - 0% |
| 98 | All Consumption | 451,820 | \$0.250 | \$ | 112,955 | \$0.250 | \$ | 112,955 | \$ 0 0% |
| 99 | Volumetric Charge | 451,820 | | \$ | 112,955 | | \$ | 112,955 | \$ 0 0% |
| 100 | Total IS Revenue | | | \$ | 162,637 | | | \$ 162,637 | \$ 0 0% |
| 101 | Fixed Charge Revenue | | | | | \$ | 11,377,217 | | |
| 102 | Revenue Requirement: | | | | | | | | |
| 103 | Customer | | | | | | 20,313,847 | | |
| 104 | Demand | | | | | | 5,860,027 | | |
| 105 | Total Fixed Costs | | | | | | 26,173,874 | | |
| 106 | Percentage of Fixed Charges to Fixed Costs | | | | | | 43.5% | | |
| 107 | Remaining Fixed Costs Recoverd via Volumetric Rates | | | | | | 14,796,657 | | |
| 108 | Percentage of Fixed Costs in Volumetric Rates | | | | | | 56.5% | | |

Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016

Exhibit RJA-3
Bill Impacts
Average Monthly Impact

| Residential 1 | | | | | | |
|---------------|-----------------|--------------------------|--------------------------|---------------------------|---------------------|---------|
| Line No. | (a) | (b) | (c) | (d) | (e) | (f) |
| | | | Present Rates | Proposed Rates | | |
| 1 | | Customer Charge | \$10.50 | \$15.00 | | |
| 2 | | Volumetric Charge | | | | |
| 3 | | 20 | \$0.607 | \$0.852 | | |
| 4 | | 30 | \$0.280 | \$0.525 | | |
| 5 | | 50 | \$0.170 | \$0.415 | | |
| 6 | | GSR Rate | \$0.681 | \$0.681 | | |
| 7 | | AVERAGE CCF PER CUSTOMER | REVENUE AT PRESENT RATES | REVENUE AT PROPOSED RATES | MONTHLY BILL CHANGE | |
| 8 | | | | | AMOUNT | PERCENT |
| 9 | Jan | 30.65 | \$46.50 | \$58.52 | \$12.02 | 25.86% |
| 10 | Feb | 37.81 | \$53.37 | \$67.15 | \$13.78 | 25.82% |
| 11 | Mar | 31.40 | \$47.21 | \$59.42 | \$12.20 | 25.85% |
| 12 | Apr | 16.80 | \$32.13 | \$40.75 | \$8.62 | 26.83% |
| 13 | May | 7.90 | \$20.67 | \$27.11 | \$6.44 | 31.15% |
| 14 | Jun | 3.60 | \$15.13 | \$20.51 | \$5.38 | 35.57% |
| 15 | Jul | 3.36 | \$14.83 | \$20.15 | \$5.32 | 35.91% |
| 16 | Aug | 2.98 | \$14.34 | \$19.58 | \$5.23 | 36.48% |
| 17 | Sep | 2.96 | \$14.31 | \$19.53 | \$5.23 | 36.52% |
| 18 | Oct | 3.85 | \$15.46 | \$20.90 | \$5.44 | 35.22% |
| 19 | Nov | 9.12 | \$22.25 | \$28.99 | \$6.74 | 30.29% |
| 20 | Dec | 20.77 | \$37.00 | \$46.60 | \$9.60 | 25.94% |
| 21 | Total | 171.19 | \$333.20 | \$429.21 | \$96.01 | 28.81% |
| 22 | Monthly Average | | \$27.77 | \$35.77 | \$8.00 | 28.81% |

| Residential 1 Expansion | | | | | | |
|-------------------------|-----------------|--------------------------|--------------------------|---------------------------|---------------------|---------|
| Line No. | (a) | (b) | (c) | (d) | (e) | (f) |
| | | | Present Rates | Proposed Rates | | |
| 1 | | Customer Charge | \$16.50 | \$16.50 | | |
| 2 | | Volumetric Charge | | | | |
| 3 | | 20 | \$0.607 | \$0.852 | | |
| 4 | | 30 | \$0.280 | \$0.525 | | |
| 5 | | 50 | \$0.170 | \$0.415 | | |
| 6 | | GSR Rate | \$0.681 | \$0.681 | | |
| 7 | | AVERAGE CCF PER CUSTOMER | REVENUE AT PRESENT RATES | REVENUE AT PROPOSED RATES | MONTHLY BILL CHANGE | |
| 8 | | | | | AMOUNT | PERCENT |
| 9 | Jan | 34.32 | \$56.02 | \$64.44 | \$8.42 | 15.03% |
| 10 | Feb | 41.88 | \$63.28 | \$73.56 | \$10.28 | 16.24% |
| 11 | Mar | 19.20 | \$41.23 | \$45.94 | \$4.71 | 11.43% |
| 12 | Apr | 5.92 | \$24.13 | \$25.58 | \$1.45 | 6.02% |
| 13 | May | 3.45 | \$20.94 | \$21.79 | \$0.85 | 4.04% |
| 14 | Jun | 1.81 | \$18.84 | \$19.28 | \$0.44 | 2.36% |
| 15 | Jul | 0.86 | \$17.61 | \$17.83 | \$0.21 | 1.20% |
| 16 | Aug | 0.43 | \$17.05 | \$17.16 | \$0.11 | 0.62% |
| 17 | Sep | 0.14 | \$16.69 | \$16.72 | \$0.04 | 0.21% |
| 18 | Oct | 3.49 | \$20.99 | \$21.85 | \$0.86 | 4.08% |
| 19 | Nov | 20.17 | \$42.43 | \$47.38 | \$4.95 | 11.67% |
| 20 | Dec | 24.52 | \$46.61 | \$52.62 | \$6.02 | 12.91% |
| 21 | Total | 156.20 | \$385.81 | \$424.14 | \$38.33 | 9.94% |
| 22 | Monthly Average | | \$32.15 | \$35.35 | \$3.19 | 9.94% |

Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016

Exhibit RJA-3
Bill Impacts
Average Monthly Impact

| Residential 2 | | | | | | |
|---------------|-----------------|-------------------|---------------|----------------|---------------------|---------|
| Line No. | (a) | (b) | (c) | (d) | (e) | (f) |
| | | | Present Rates | Proposed Rates | | |
| 23 | | Customer Charge | \$13.00 | \$17.00 | | |
| | | Volumetric Charge | | | | |
| 24 | | 20 | \$0.578 | \$0.656 | | |
| 25 | | 30 | \$0.319 | \$0.397 | | |
| 26 | | 50 | \$0.132 | \$0.210 | | |
| 27 | | GSR Rate | \$0.681 | \$0.681 | | |
| 28 | | AVERAGE | REVENUE AT | REVENUE AT | MONTHLY BILL CHANGE | |
| 29 | | CCF PER | PRESENT | PROPOSED | | |
| 30 | | CUSTOMER | RATES | RATES | AMOUNT | PERCENT |
| 31 | Jan | 122.76 | \$127.33 | \$140.85 | \$13.51 | 10.61% |
| 32 | Feb | 138.70 | \$140.29 | \$155.04 | \$14.75 | 10.51% |
| 32 | Mar | 111.99 | \$118.58 | \$131.26 | \$12.68 | 10.69% |
| 33 | Apr | 65.24 | \$80.57 | \$89.63 | \$9.06 | 11.24% |
| 34 | May | 31.06 | \$49.24 | \$55.65 | \$6.41 | 13.01% |
| 35 | Jun | 13.42 | \$29.90 | \$34.94 | \$5.04 | 16.86% |
| 36 | Jul | 10.65 | \$26.41 | \$31.23 | \$4.83 | 18.27% |
| 37 | Aug | 9.25 | \$24.65 | \$29.37 | \$4.72 | 19.14% |
| 38 | Sep | 9.11 | \$24.47 | \$29.18 | \$4.71 | 19.23% |
| 39 | Oct | 16.01 | \$33.16 | \$38.40 | \$5.24 | 15.80% |
| 40 | Nov | 44.34 | \$62.52 | \$69.96 | \$7.44 | 11.89% |
| 41 | Dec | 88.43 | \$99.43 | \$110.28 | \$10.85 | 10.92% |
| 42 | Total | 660.98 | \$816.55 | \$915.78 | \$99.23 | 12.15% |
| 43 | Monthly Average | | \$68.05 | \$76.32 | \$8.27 | 12.15% |

| Residential 2 Expansion | | | | | | |
|-------------------------|-----------------|-------------------|---------------|----------------|---------------------|---------|
| Line No. | (a) | (b) | (c) | (d) | (e) | (f) |
| | | | Present Rates | Proposed Rates | | |
| 23 | | Customer Charge | \$31.75 | \$31.75 | | |
| | | Volumetric Charge | | | | |
| 24 | | 20 | \$0.578 | \$0.656 | | |
| 25 | | 30 | \$0.319 | \$0.397 | | |
| 26 | | 50 | \$0.132 | \$0.210 | | |
| 27 | | GSR Rate | \$0.681 | \$0.681 | | |
| 28 | | AVERAGE | REVENUE AT | REVENUE AT | MONTHLY BILL CHANGE | |
| 29 | | CCF PER | PRESENT | PROPOSED | | |
| 30 | | CUSTOMER | RATES | RATES | AMOUNT | PERCENT |
| 31 | Jan | 112.12 | \$137.44 | \$146.13 | \$8.69 | 6.32% |
| 32 | Feb | 130.79 | \$152.62 | \$162.75 | \$10.14 | 6.64% |
| 32 | Mar | 81.40 | \$112.46 | \$118.77 | \$6.31 | 5.61% |
| 33 | Apr | 34.81 | \$71.74 | \$74.44 | \$2.70 | 3.76% |
| 34 | May | 18.71 | \$55.30 | \$56.75 | \$1.45 | 2.62% |
| 35 | Jun | 11.56 | \$46.31 | \$47.20 | \$0.90 | 1.94% |
| 36 | Jul | 4.79 | \$37.78 | \$38.15 | \$0.37 | 0.98% |
| 37 | Aug | 4.02 | \$36.81 | \$37.13 | \$0.31 | 0.85% |
| 38 | Sep | 4.11 | \$36.92 | \$37.24 | \$0.32 | 0.86% |
| 39 | Oct | 14.88 | \$50.49 | \$51.64 | \$1.15 | 2.28% |
| 40 | Nov | 55.93 | \$91.75 | \$96.08 | \$4.33 | 4.72% |
| 41 | Dec | 82.24 | \$113.14 | \$119.51 | \$6.37 | 5.63% |
| 42 | Total | 555.36 | \$942.75 | \$985.79 | \$43.04 | 4.57% |
| 43 | Monthly Average | | \$78.56 | \$82.15 | \$3.59 | 4.57% |

Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016

Exhibit RJA-3
Bill Impacts
Average Monthly Impact

| General Service | | | | | | |
|-----------------|-----------------|-------------------|---------------|----------------|---------------------|---------|
| Line No. | (a) | (b) | (c) | (d) | (e) | (f) |
| | | | Present Rates | Proposed Rates | | |
| 44 | | Customer Charge | \$26.00 | \$34.00 | | |
| | | Volumetric Charge | | | | |
| 45 | | 20 | \$0.447 | \$0.506 | | |
| 46 | | 30 | \$0.278 | \$0.337 | | |
| 47 | | 50 | \$0.140 | \$0.199 | | |
| 48 | | GSR Rate | \$0.681 | \$0.681 | | |
| 49 | | AVERAGE | REVENUE AT | REVENUE AT | MONTHLY BILL CHANGE | |
| 50 | | CCF PER | PRESENT | PROPOSED | | |
| 51 | | CUSTOMER | RATES | RATES | AMOUNT | PERCENT |
| 52 | Jan | 194.06 | \$195.60 | \$215.12 | \$19.52 | 9.98% |
| 53 | Feb | 231.42 | \$226.28 | \$248.01 | \$21.73 | 9.61% |
| 53 | Mar | 203.07 | \$203.00 | \$223.05 | \$20.05 | 9.88% |
| 54 | Apr | 99.95 | \$118.33 | \$132.27 | \$13.93 | 11.77% |
| 55 | May | 43.24 | \$70.85 | \$81.41 | \$10.57 | 14.91% |
| 56 | Jun | 18.70 | \$47.09 | \$56.20 | \$9.11 | 19.34% |
| 57 | Jul | 14.62 | \$42.49 | \$51.36 | \$8.87 | 20.87% |
| 58 | Aug | 12.25 | \$39.81 | \$48.54 | \$8.73 | 21.92% |
| 59 | Sep | 13.37 | \$41.08 | \$49.87 | \$8.79 | 21.41% |
| 60 | Oct | 21.23 | \$49.74 | \$59.00 | \$9.26 | 18.62% |
| 61 | Nov | 50.24 | \$77.53 | \$88.51 | \$10.98 | 14.16% |
| 62 | Dec | 129.30 | \$142.44 | \$158.11 | \$15.67 | 11.00% |
| 63 | Total | 1031.44 | \$1,254.24 | \$1,411.46 | \$157.21 | 12.53% |
| 64 | Monthly Average | | \$104.52 | \$117.62 | \$13.10 | 12.53% |

| General Service Expansion | | | | | | |
|---------------------------|-----------------|-------------------|---------------|----------------|---------------------|---------|
| Line No. | (a) | (b) | (c) | (d) | (e) | (f) |
| | | | Present Rates | Proposed Rates | | |
| 44 | | Customer Charge | \$56.00 | \$56.00 | | |
| | | Volumetric Charge | | | | |
| 45 | | 20 | \$0.447 | \$0.506 | | |
| 46 | | 30 | \$0.278 | \$0.337 | | |
| 47 | | 50 | \$0.140 | \$0.199 | | |
| 48 | | GSR Rate | \$0.681 | \$0.681 | | |
| 49 | | AVERAGE | REVENUE AT | REVENUE AT | MONTHLY BILL CHANGE | |
| 50 | | CCF PER | PRESENT | PROPOSED | | |
| 51 | | CUSTOMER | RATES | RATES | AMOUNT | PERCENT |
| 52 | Jan | 163.49 | \$200.50 | \$210.20 | \$9.70 | 4.84% |
| 53 | Feb | 225.97 | \$251.80 | \$265.21 | \$13.41 | 5.33% |
| 53 | Mar | 113.08 | \$159.12 | \$165.83 | \$6.71 | 4.22% |
| 54 | Apr | 53.21 | \$109.96 | \$113.12 | \$3.16 | 2.87% |
| 55 | May | 48.75 | \$106.13 | \$109.02 | \$2.89 | 2.73% |
| 56 | Jun | 34.90 | \$92.85 | \$94.92 | \$2.07 | 2.23% |
| 57 | Jul | 3.87 | \$60.37 | \$60.60 | \$0.23 | 0.38% |
| 58 | Aug | 1.48 | \$57.66 | \$57.75 | \$0.09 | 0.15% |
| 59 | Sep | 3.56 | \$60.02 | \$60.23 | \$0.21 | 0.35% |
| 60 | Oct | 12.38 | \$69.96 | \$70.70 | \$0.73 | 1.05% |
| 61 | Nov | 54.59 | \$111.10 | \$114.34 | \$3.24 | 2.92% |
| 62 | Dec | 94.69 | \$144.02 | \$149.64 | \$5.62 | 3.90% |
| 63 | Total | 809.95 | \$1,423.49 | \$1,471.56 | \$48.07 | 3.38% |
| 64 | Monthly Average | | \$118.62 | \$122.63 | \$4.01 | 3.38% |

**Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016**

**Exhibit RJA-4
Typical Bill Impacts**

| CHESAPEAKE UTILITIES CORPORATION - Delaware Division | | | | | |
|--|---------------------|--------------------------|---------------------------|----------------|---------|
| Estimated Monthly Bill Impacts | | | | | |
| Residential Service 1 | | | | | |
| Line No. | (a) | (b) | (c) | (d) | (e) |
| | | Present Rates | Proposed Rates | | |
| 1 | Customer Charge | \$10.50 | \$15.00 | | |
| 2 | Volumetric Charge | | | | |
| 3 | 20 | \$0.607 | \$0.852 | | |
| 4 | 30 | \$0.280 | \$0.525 | | |
| 5 | 50 | \$0.170 | \$0.415 | | |
| 6 | GSR Rate | \$0.681 | \$0.681 | | |
| 7 | MONTHLY CONSUMPTION | REVENUE AT PRESENT RATES | REVENUE AT PROPOSED RATES | REVENUE CHANGE | |
| 8 | (Ccf) | | | AMOUNT | PERCENT |
| 9 | 0 | \$10.50 | \$15.00 | \$4.50 | 42.86% |
| 10 | 25 | \$41.07 | \$51.70 | \$10.64 | 25.90% |
| 11 | 30 | \$45.87 | \$57.73 | \$11.86 | 25.86% |
| 12 | 35 | \$50.68 | \$63.76 | \$13.09 | 25.83% |
| 13 | 40 | \$55.48 | \$69.80 | \$14.32 | 25.80% |
| 14 | 45 | \$60.29 | \$75.83 | \$15.54 | 25.78% |
| 15 | 50 | \$65.09 | \$81.86 | \$16.77 | 25.77% |
| 16 | 60 | \$73.60 | \$92.82 | \$19.22 | 26.12% |
| 17 | 70 | \$82.11 | \$103.79 | \$21.68 | 26.40% |
| 18 | 80 | \$90.62 | \$114.75 | \$24.13 | 26.63% |
| 19 | 90 | \$99.13 | \$125.72 | \$26.59 | 26.82% |
| 20 | 100 | \$107.64 | \$136.68 | \$29.04 | 26.98% |
| 21 | 110 | \$116.15 | \$147.65 | \$31.50 | 27.12% |
| 22 | 120 | \$124.66 | \$158.61 | \$33.95 | 27.23% |
| 23 | 130 | \$133.17 | \$169.57 | \$36.40 | 27.34% |
| 24 | 140 | \$141.68 | \$180.54 | \$38.86 | 27.43% |
| 25 | 150 | \$150.19 | \$191.50 | \$41.31 | 27.51% |
| 26 | 160 | \$158.70 | \$202.47 | \$43.77 | 27.58% |
| 27 | 170 | \$167.21 | \$213.43 | \$46.22 | 27.64% |
| 28 | 180 | \$175.72 | \$224.39 | \$48.67 | 27.70% |
| 29 | 190 | \$184.23 | \$235.36 | \$51.13 | 27.75% |
| 30 | 200 | \$192.74 | \$246.32 | \$53.58 | 27.80% |
| 31 | 210 | \$201.25 | \$257.29 | \$56.04 | 27.84% |
| 32 | 220 | \$209.76 | \$268.25 | \$58.49 | 27.88% |
| 33 | 230 | \$218.27 | \$279.21 | \$60.94 | 27.92% |
| 34 | 240 | \$226.78 | \$290.18 | \$63.40 | 27.96% |

**Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016**

**Exhibit RJA-4
Typical Bill Impacts**

| Residential Service 1 - Expansion | | | | | | |
|-----------------------------------|---------------------|--------------------------|---------------------------|----------------|---------|--|
| Line No. | (a) | (c) | (d) | (e) | (f) | |
| | | Present Rates | Proposed Rates | | | |
| 35 | Customer Charge | \$16.50 | \$16.50 | | | |
| | Volumetric Charge | | | | | |
| 36 | 20 | \$0.607 | \$0.852 | | | |
| 37 | 30 | \$0.280 | \$0.525 | | | |
| 38 | 50 | \$0.170 | \$0.415 | | | |
| 39 | GSR Rate | \$0.681 | \$0.681 | | | |
| 40 | MONTHLY CONSUMPTION | REVENUE AT PRESENT RATES | REVENUE AT PROPOSED RATES | REVENUE CHANGE | | |
| 41 | (Ccf) | | | AMOUNT | PERCENT | |
| 42 | | | | | | |
| 43 | 0 | \$16.50 | \$16.50 | \$0.00 | 0.00% | |
| 44 | 25 | \$47.07 | \$53.20 | \$6.14 | 13.04% | |
| 45 | 30 | \$51.87 | \$59.23 | \$7.36 | 14.19% | |
| 46 | 35 | \$56.68 | \$65.26 | \$8.59 | 15.16% | |
| 47 | 40 | \$61.48 | \$71.30 | \$9.82 | 15.97% | |
| 48 | 45 | \$66.29 | \$77.33 | \$11.04 | 16.66% | |
| 49 | 50 | \$71.09 | \$83.36 | \$12.27 | 17.26% | |
| 50 | 60 | \$79.60 | \$94.32 | \$14.72 | 18.50% | |
| 51 | 70 | \$88.11 | \$105.29 | \$17.18 | 19.50% | |
| 52 | 80 | \$96.62 | \$116.25 | \$19.63 | 20.32% | |
| 53 | 90 | \$105.13 | \$127.22 | \$22.09 | 21.01% | |
| 54 | 100 | \$113.64 | \$138.18 | \$24.54 | 21.60% | |
| 55 | 110 | \$122.15 | \$149.15 | \$27.00 | 22.10% | |
| 56 | 120 | \$130.66 | \$160.11 | \$29.45 | 22.54% | |
| 57 | 130 | \$139.17 | \$171.07 | \$31.90 | 22.92% | |
| 58 | 140 | \$147.68 | \$182.04 | \$34.36 | 23.26% | |
| 59 | 150 | \$156.19 | \$193.00 | \$36.81 | 23.57% | |
| 60 | 160 | \$164.70 | \$203.97 | \$39.27 | 23.84% | |
| 61 | 170 | \$173.21 | \$214.93 | \$41.72 | 24.09% | |
| 62 | 180 | \$181.72 | \$225.89 | \$44.17 | 24.31% | |
| 63 | 190 | \$190.23 | \$236.86 | \$46.63 | 24.51% | |
| 64 | 200 | \$198.74 | \$247.82 | \$49.08 | 24.70% | |
| 65 | 210 | \$207.25 | \$258.79 | \$51.54 | 24.87% | |
| 66 | 220 | \$215.76 | \$269.75 | \$53.99 | 25.02% | |
| 67 | 230 | \$224.27 | \$280.71 | \$56.44 | 25.17% | |
| 68 | 240 | \$232.78 | \$291.68 | \$58.90 | 25.30% | |

**Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016**

**Exhibit RJA-4
Typical Bill Impacts**

| Residential Service 2 | | | | | | |
|-----------------------|-------------------|---------------|----------------|----------------|---------|--|
| Line No. | (a) | (b) | (c) | (d) | (e) | |
| | | Present Rates | Proposed Rates | | | |
| 69 | Customer Charge | \$13.00 | \$17.00 | | | |
| | Volumetric Charge | | | | | |
| 70 | 20 | \$0.578 | \$0.656 | | | |
| 71 | 30 | \$0.319 | \$0.397 | | | |
| 72 | 50 | \$0.132 | \$0.210 | | | |
| 73 | GSR Rate | \$0.681 | \$0.681 | | | |
| 74 | MONTHLY | REVENUE AT | REVENUE AT | REVENUE CHANGE | | |
| 75 | CONSUMPTION | PRESENT | PROPOSED | | | |
| 76 | (Ccf) | RATES | RATES | AMOUNT | PERCENT | |
| 77 | 240 | \$222.65 | \$245.25 | \$22.60 | 10.15% | |
| 78 | 250 | \$230.78 | \$254.16 | \$23.38 | 10.13% | |
| 79 | 260 | \$238.91 | \$263.06 | \$24.15 | 10.11% | |
| 80 | 270 | \$247.04 | \$271.97 | \$24.93 | 10.09% | |
| 81 | 280 | \$255.17 | \$280.87 | \$25.70 | 10.07% | |
| 82 | 290 | \$263.30 | \$289.78 | \$26.48 | 10.06% | |
| 83 | 300 | \$271.43 | \$298.68 | \$27.25 | 10.04% | |
| 84 | 310 | \$279.56 | \$307.59 | \$28.03 | 10.03% | |
| 85 | 320 | \$287.69 | \$316.49 | \$28.80 | 10.01% | |
| 86 | 330 | \$295.82 | \$325.40 | \$29.58 | 10.00% | |
| 87 | 340 | \$303.95 | \$334.30 | \$30.35 | 9.99% | |
| 88 | 350 | \$312.08 | \$343.21 | \$31.13 | 9.97% | |
| 89 | 360 | \$320.21 | \$352.11 | \$31.90 | 9.96% | |
| 90 | 370 | \$328.34 | \$361.02 | \$32.68 | 9.95% | |
| 91 | 380 | \$336.47 | \$369.92 | \$33.45 | 9.94% | |
| 92 | 390 | \$344.60 | \$378.83 | \$34.23 | 9.93% | |
| 93 | 400 | \$352.73 | \$387.73 | \$35.00 | 9.92% | |
| 94 | 410 | \$360.86 | \$396.64 | \$35.78 | 9.91% | |
| 95 | 420 | \$368.99 | \$405.54 | \$36.55 | 9.91% | |
| 96 | 430 | \$377.12 | \$414.45 | \$37.33 | 9.90% | |
| 97 | 440 | \$385.25 | \$423.35 | \$38.10 | 9.89% | |
| 98 | 450 | \$393.38 | \$432.26 | \$38.88 | 9.88% | |
| 99 | 460 | \$401.51 | \$441.16 | \$39.65 | 9.88% | |
| 100 | 470 | \$409.64 | \$450.07 | \$40.43 | 9.87% | |
| 101 | 480 | \$417.77 | \$458.97 | \$41.20 | 9.86% | |
| 102 | 490 | \$425.90 | \$467.88 | \$41.98 | 9.86% | |

**Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016**

**Exhibit RJA-4
Typical Bill Impacts**

| Residential Service 2 - Expansion | | | | | |
|-----------------------------------|-------------------|---------------|----------------|----------------|---------|
| Line No. | (a) | (c) | (d) | (e) | (f) |
| | | Present Rates | Proposed Rates | | |
| 103 | Customer Charge | \$31.75 | \$31.75 | | |
| | Volumetric Charge | | | | |
| 104 | 20 | \$0.578 | \$0.656 | | |
| 105 | 30 | \$0.319 | \$0.397 | | |
| 106 | 50 | \$0.132 | \$0.210 | | |
| 107 | GSR Rate | \$0.681 | \$0.681 | | |
| 108 | MONTHLY | REVENUE AT | REVENUE AT | REVENUE CHANGE | |
| 109 | CONSUMPTION | PRESENT | PROPOSED | | |
| 110 | (Ccf) | RATES | RATES | AMOUNT | PERCENT |
| 111 | 240 | \$241.40 | \$260.00 | \$18.60 | 7.71% |
| 112 | 250 | \$249.53 | \$268.91 | \$19.38 | 7.77% |
| 113 | 260 | \$257.66 | \$277.81 | \$20.15 | 7.82% |
| 114 | 270 | \$265.79 | \$286.72 | \$20.93 | 7.87% |
| 115 | 280 | \$273.92 | \$295.62 | \$21.70 | 7.92% |
| 116 | 290 | \$282.05 | \$304.53 | \$22.48 | 7.97% |
| 117 | 300 | \$290.18 | \$313.43 | \$23.25 | 8.01% |
| 118 | 310 | \$298.31 | \$322.34 | \$24.03 | 8.05% |
| 119 | 320 | \$306.44 | \$331.24 | \$24.80 | 8.09% |
| 120 | 330 | \$314.57 | \$340.15 | \$25.58 | 8.13% |
| 121 | 340 | \$322.70 | \$349.05 | \$26.35 | 8.17% |
| 122 | 350 | \$330.83 | \$357.96 | \$27.13 | 8.20% |
| 123 | 360 | \$338.96 | \$366.86 | \$27.90 | 8.23% |
| 124 | 370 | \$347.09 | \$375.77 | \$28.68 | 8.26% |
| 125 | 380 | \$355.22 | \$384.67 | \$29.45 | 8.29% |
| 126 | 390 | \$363.35 | \$393.58 | \$30.23 | 8.32% |
| 127 | 400 | \$371.48 | \$402.48 | \$31.00 | 8.35% |
| 128 | 410 | \$379.61 | \$411.39 | \$31.78 | 8.37% |
| 129 | 420 | \$387.74 | \$420.29 | \$32.55 | 8.40% |
| 130 | 430 | \$395.87 | \$429.20 | \$33.33 | 8.42% |
| 131 | 440 | \$404.00 | \$438.10 | \$34.10 | 8.44% |
| 132 | 450 | \$412.13 | \$447.01 | \$34.88 | 8.46% |
| 133 | 460 | \$420.26 | \$455.91 | \$35.65 | 8.48% |
| 134 | 470 | \$428.39 | \$464.82 | \$36.43 | 8.50% |
| 135 | 480 | \$436.52 | \$473.72 | \$37.20 | 8.52% |
| 136 | 490 | \$444.65 | \$482.63 | \$37.98 | 8.54% |

**Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016**

**Exhibit RJA-4
Typical Bill Impacts**

| General Service | | | | | |
|-----------------|---------------------|--------------------------|---------------------------|----------------|---------|
| Line No. | (a) | (c) | (d) | (e) | (f) |
| | | Present Rates | Proposed Rates | | |
| 137 | Customer Charge | \$26.00 | \$34.00 | | |
| | Volumetric Charge | | | | |
| 138 | 20 | \$0.447 | \$0.506 | | |
| 139 | 30 | \$0.278 | \$0.337 | | |
| 140 | 50 | \$0.140 | \$0.199 | | |
| 141 | GSR Rate | \$0.681 | \$0.681 | | |
| 142 | MONTHLY CONSUMPTION | REVENUE AT PRESENT RATES | REVENUE AT PROPOSED RATES | REVENUE CHANGE | |
| 143 | (Ccf) | | | AMOUNT | PERCENT |
| 144 | | | | | |
| 145 | 240 | \$233.32 | \$255.56 | \$22.24 | 9.53% |
| 146 | 250 | \$241.53 | \$264.37 | \$22.84 | 9.46% |
| 147 | 260 | \$249.74 | \$273.17 | \$23.43 | 9.38% |
| 148 | 270 | \$257.95 | \$281.97 | \$24.02 | 9.31% |
| 149 | 280 | \$266.16 | \$290.78 | \$24.62 | 9.25% |
| 150 | 290 | \$274.37 | \$299.58 | \$25.21 | 9.19% |
| 151 | 300 | \$282.58 | \$308.38 | \$25.80 | 9.13% |
| 152 | 310 | \$290.79 | \$317.19 | \$26.40 | 9.08% |
| 153 | 320 | \$299.00 | \$325.99 | \$26.99 | 9.03% |
| 154 | 330 | \$307.21 | \$334.80 | \$27.59 | 8.98% |
| 155 | 340 | \$315.42 | \$343.60 | \$28.18 | 8.93% |
| 156 | 350 | \$323.63 | \$352.40 | \$28.77 | 8.89% |
| 157 | 360 | \$331.84 | \$361.21 | \$29.37 | 8.85% |
| 158 | 370 | \$340.05 | \$370.01 | \$29.96 | 8.81% |
| 159 | 380 | \$348.26 | \$378.81 | \$30.55 | 8.77% |
| 160 | 390 | \$356.47 | \$387.62 | \$31.15 | 8.74% |
| 161 | 400 | \$364.68 | \$396.42 | \$31.74 | 8.70% |
| 162 | 410 | \$372.89 | \$405.22 | \$32.33 | 8.67% |
| 163 | 420 | \$381.10 | \$414.03 | \$32.93 | 8.64% |
| 164 | 430 | \$389.31 | \$422.83 | \$33.52 | 8.61% |
| 165 | 440 | \$397.52 | \$431.63 | \$34.11 | 8.58% |
| 166 | 450 | \$405.73 | \$440.44 | \$34.71 | 8.55% |
| 167 | 460 | \$413.94 | \$449.24 | \$35.30 | 8.53% |
| 168 | 470 | \$422.15 | \$458.04 | \$35.89 | 8.50% |
| 169 | 480 | \$430.36 | \$466.85 | \$36.49 | 8.48% |
| 170 | 490 | \$438.57 | \$475.65 | \$37.08 | 8.45% |

**Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016**

**Exhibit RJA-4
Typical Bill Impacts**

| General Service - Expansion | | | | | | |
|-----------------------------|-------------------|---------------|----------------|----------------|---------|--|
| Line No. | (a) | (c) | (d) | (e) | (f) | |
| | | Present Rates | Proposed Rates | | | |
| 171 | Customer Charge | \$56.00 | \$56.00 | | | |
| | Volumetric Charge | | | | | |
| 172 | 20 | \$0.447 | \$0.506 | | | |
| 173 | 30 | \$0.278 | \$0.337 | | | |
| 174 | 50 | \$0.140 | \$0.199 | | | |
| 175 | GSR Rate | \$0.681 | \$0.681 | | | |
| 176 | MONTHLY | REVENUE AT | REVENUE AT | REVENUE CHANGE | | |
| 177 | CONSUMPTION | PRESENT | PROPOSED | | | |
| 178 | (Ccf) | RATES | RATES | AMOUNT | PERCENT | |
| 179 | 240 | \$263.32 | \$277.56 | \$14.24 | 5.41% | |
| 180 | 250 | \$271.53 | \$286.37 | \$14.84 | 5.46% | |
| 181 | 260 | \$279.74 | \$295.17 | \$15.43 | 5.52% | |
| 182 | 270 | \$287.95 | \$303.97 | \$16.02 | 5.56% | |
| 183 | 280 | \$296.16 | \$312.78 | \$16.62 | 5.61% | |
| 184 | 290 | \$304.37 | \$321.58 | \$17.21 | 5.65% | |
| 185 | 300 | \$312.58 | \$330.38 | \$17.80 | 5.70% | |
| 186 | 310 | \$320.79 | \$339.19 | \$18.40 | 5.74% | |
| 187 | 320 | \$329.00 | \$347.99 | \$18.99 | 5.77% | |
| 188 | 330 | \$337.21 | \$356.80 | \$19.59 | 5.81% | |
| 189 | 340 | \$345.42 | \$365.60 | \$20.18 | 5.84% | |
| 190 | 350 | \$353.63 | \$374.40 | \$20.77 | 5.87% | |
| 191 | 360 | \$361.84 | \$383.21 | \$21.37 | 5.90% | |
| 192 | 370 | \$370.05 | \$392.01 | \$21.96 | 5.93% | |
| 193 | 380 | \$378.26 | \$400.81 | \$22.55 | 5.96% | |
| 194 | 390 | \$386.47 | \$409.62 | \$23.15 | 5.99% | |
| 195 | 400 | \$394.68 | \$418.42 | \$23.74 | 6.01% | |
| 196 | 410 | \$402.89 | \$427.22 | \$24.33 | 6.04% | |
| 197 | 420 | \$411.10 | \$436.03 | \$24.93 | 6.06% | |
| 198 | 430 | \$419.31 | \$444.83 | \$25.52 | 6.09% | |
| 199 | 440 | \$427.52 | \$453.63 | \$26.11 | 6.11% | |
| 200 | 450 | \$435.73 | \$462.44 | \$26.71 | 6.13% | |
| 201 | 460 | \$443.94 | \$471.24 | \$27.30 | 6.15% | |
| 202 | 470 | \$452.15 | \$480.04 | \$27.89 | 6.17% | |
| 203 | 480 | \$460.36 | \$488.85 | \$28.49 | 6.19% | |
| 204 | 490 | \$468.57 | \$497.65 | \$29.08 | 6.21% | |

**Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016**

**Exhibit RJA-4
Typical Bill Impacts**

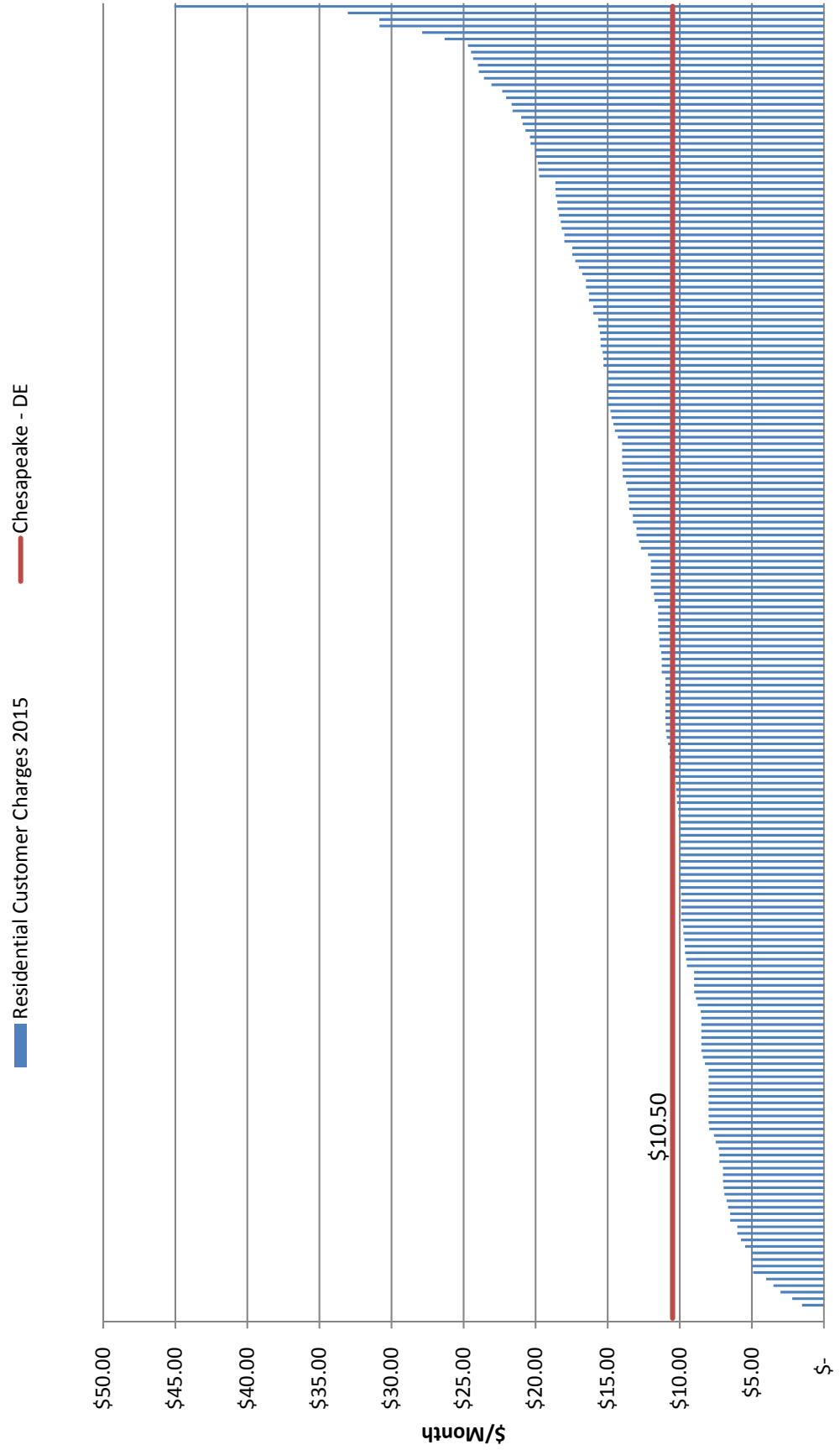
| Medium Volume Service | | | | | | |
|-----------------------|-------------------|---------------|----------------|----------------|---------|--|
| Line No. | (a) | (c) | (d) | (e) | (f) | |
| | | Present Rates | Proposed Rates | | | |
| 205 | Customer Charge | \$65.00 | \$80.00 | | | |
| 206 | Volumetric Charge | | | | | |
| 207 | 200 | \$0.227 | \$0.237 | | | |
| 207 | 200 | \$0.115 | \$0.125 | | | |
| 208 | GSR Rate | \$0.681 | \$0.681 | | | |
| 209 | MONTHLY | REVENUE AT | REVENUE AT | REVENUE CHANGE | | |
| 210 | CONSUMPTION | PRESENT | PROPOSED | | | |
| 211 | (Ccf) | RATES | RATES | AMOUNT | PERCENT | |
| 212 | 0.0 | \$65.00 | \$80.00 | \$15.00 | 23.08% | |
| 213 | 100 | \$155.80 | \$171.84 | \$16.04 | 10.29% | |
| 214 | 200 | \$246.60 | \$263.68 | \$17.08 | 6.93% | |
| 215 | 300 | \$326.20 | \$344.32 | \$18.12 | 5.55% | |
| 216 | 400 | \$405.80 | \$424.96 | \$19.16 | 4.72% | |
| 217 | 500 | \$485.40 | \$505.59 | \$20.19 | 4.16% | |
| 218 | 600 | \$565.00 | \$586.23 | \$21.23 | 3.76% | |
| 219 | 700 | \$644.60 | \$666.87 | \$22.27 | 3.46% | |
| 220 | 800 | \$724.20 | \$747.51 | \$23.31 | 3.22% | |
| 221 | 900 | \$803.80 | \$828.15 | \$24.35 | 3.03% | |
| 222 | 1000 | \$883.40 | \$908.79 | \$25.39 | 2.87% | |
| 223 | 1100 | \$963.00 | \$989.43 | \$26.43 | 2.74% | |
| 224 | 1200 | \$1,042.60 | \$1,070.07 | \$27.47 | 2.63% | |
| 225 | 1300 | \$1,122.20 | \$1,150.70 | \$28.50 | 2.54% | |
| 226 | 1400 | \$1,201.80 | \$1,231.34 | \$29.54 | 2.46% | |
| 227 | 1500 | \$1,281.40 | \$1,311.98 | \$30.58 | 2.39% | |
| 228 | 2000 | \$1,679.40 | \$1,715.18 | \$35.78 | 2.13% | |
| 229 | 2500 | \$2,077.40 | \$2,118.37 | \$40.97 | 1.97% | |
| 230 | 3000 | \$2,475.40 | \$2,521.56 | \$46.16 | 1.86% | |
| 231 | 3500 | \$2,873.40 | \$2,924.76 | \$51.36 | 1.79% | |
| 232 | 4000 | \$3,271.40 | \$3,327.95 | \$56.55 | 1.73% | |
| 233 | 5000 | \$4,067.40 | \$4,134.34 | \$66.94 | 1.65% | |
| 234 | 6000 | \$4,863.40 | \$4,940.73 | \$77.33 | 1.59% | |
| 235 | 7000 | \$5,659.40 | \$5,747.12 | \$87.72 | 1.55% | |
| 236 | 8000 | \$6,455.40 | \$6,553.51 | \$98.11 | 1.52% | |
| 237 | 9000 | \$7,251.40 | \$7,359.89 | \$108.49 | 1.50% | |
| 238 | 10000 | \$8,047.40 | \$8,166.28 | \$118.88 | 1.48% | |
| 239 | 12500 | \$10,037.40 | \$10,182.25 | \$144.85 | 1.44% | |
| 240 | 15000 | \$12,027.40 | \$12,198.22 | \$170.82 | 1.42% | |
| 241 | 17500 | \$14,017.40 | \$14,214.19 | \$196.79 | 1.40% | |
| 242 | 20000 | \$16,007.40 | \$16,230.16 | \$222.76 | 1.39% | |

**Chesapeake Utilities
Delaware Division
Test Period Ended March 31, 2016**

**Exhibit RJ4-4
Typical Bill Impacts**

| Large Volume Service | | | | | |
|----------------------|-------------------------|---------------|----------------|----------------|---------|
| Line No. | (a) | (c) | (d) | (e) | (f) |
| | | Present Rates | Proposed Rates | | |
| 243 | Customer Charge | \$125.00 | \$175.00 | | |
| 244 | Volumetric Charge 1,000 | \$0.326 | \$0.218 | | |
| 245 | 1,000 | \$0.083 | \$0.088 | | |
| 246 | GSR Rate | \$0.681 | \$0.681 | | |
| 247 | MONTHLY | REVENUE AT | REVENUE AT | REVENUE CHANGE | |
| 248 | CONSUMPTION | PRESENT | PROPOSED | | |
| 249 | (Ccf) | RATES | RATES | AMOUNT | PERCENT |
| 250 | 0.0 | \$125.00 | \$175.00 | \$50.00 | 40.00% |
| 251 | 1,000 | \$1,132.00 | \$1,074.18 | (\$57.82) | -5.11% |
| 252 | 2,000 | \$1,896.00 | \$1,843.43 | (\$52.57) | -2.77% |
| 253 | 3,000 | \$2,660.00 | \$2,612.68 | (\$47.32) | -1.78% |
| 254 | 4,000 | \$3,424.00 | \$3,381.93 | (\$42.07) | -1.23% |
| 255 | 5,000 | \$4,188.00 | \$4,151.18 | (\$36.82) | -0.88% |
| 256 | 6,000 | \$4,952.00 | \$4,920.43 | (\$31.57) | -0.64% |
| 257 | 7,000 | \$5,716.00 | \$5,689.68 | (\$26.32) | -0.46% |
| 258 | 8,000 | \$6,480.00 | \$6,458.93 | (\$21.07) | -0.33% |
| 259 | 9,000 | \$7,244.00 | \$7,228.18 | (\$15.82) | -0.22% |
| 260 | 10,000 | \$8,008.00 | \$7,997.43 | (\$10.57) | -0.13% |
| 261 | 11,000 | \$8,772.00 | \$8,766.68 | (\$5.32) | -0.06% |
| 262 | 12,000 | \$9,536.00 | \$9,535.93 | (\$0.07) | 0.00% |
| 263 | 13,000 | \$10,300.00 | \$10,305.18 | \$5.18 | 0.05% |
| 264 | 14,000 | \$11,064.00 | \$11,074.43 | \$10.43 | 0.09% |
| 265 | 15,000 | \$11,828.00 | \$11,843.68 | \$15.68 | 0.13% |
| 266 | 16,000 | \$12,592.00 | \$12,612.93 | \$20.93 | 0.17% |
| 267 | 17,000 | \$13,356.00 | \$13,382.18 | \$26.18 | 0.20% |
| 268 | 18,000 | \$14,120.00 | \$14,151.43 | \$31.43 | 0.22% |
| 269 | 19,000 | \$14,884.00 | \$14,920.68 | \$36.68 | 0.25% |
| 270 | 20,000 | \$15,648.00 | \$15,689.93 | \$41.93 | 0.27% |
| 271 | 21,000 | \$16,412.00 | \$16,459.18 | \$47.18 | 0.29% |
| 272 | 22,000 | \$17,176.00 | \$17,228.43 | \$52.43 | 0.31% |
| 273 | 23,000 | \$17,940.00 | \$17,997.68 | \$57.68 | 0.32% |
| 274 | 24,000 | \$18,704.00 | \$18,766.93 | \$62.93 | 0.34% |
| 275 | 25,000 | \$19,468.00 | \$19,536.18 | \$68.18 | 0.35% |
| 276 | 26,000 | \$20,232.00 | \$20,305.43 | \$73.43 | 0.36% |
| 277 | 27,000 | \$20,996.00 | \$21,074.68 | \$78.68 | 0.37% |
| 278 | 28,000 | \$21,760.00 | \$21,843.93 | \$83.93 | 0.39% |
| 279 | 29,000 | \$22,524.00 | \$22,613.18 | \$89.18 | 0.40% |
| 280 | 30,000 | \$23,288.00 | \$23,382.43 | \$94.43 | 0.41% |
| 281 | 31,000 | \$24,052.00 | \$24,151.68 | \$99.68 | 0.41% |
| 282 | 32,000 | \$24,816.00 | \$24,920.93 | \$104.93 | 0.42% |

Chesapeake Utilities - Delaware Residential Monthly Customer Charges - as of September 2015



| NATURAL GAS CUSTOMER CHARGE | | | |
|--|-------|-------------|------------------|
| Company | State | Residential | Small Commercial |
| CONTINENTAL ENERGY - ENSTAR NATURAL GAS CO | AK | \$ 14.00 | \$ 30.00 |
| SEMPRA - MOBILE GAS SERVICE | AL | \$ 8.50 | \$ 16.30 |
| ARKANSAS OKLAHOMA GAS CORP - AR | AR | \$ 10.70 | \$ 15.95 |
| CENTERPOINT ARKLA AR | AR | \$ 9.75 | \$ 13.00 |
| SOURCEGAS LLC AR | AR | \$ 10.20 | \$ 18.51 |
| SOUTHWEST GAS CORP AZ | AZ | \$ 10.70 | \$ 27.50 |
| UNISOURCE ENERGY SERVICES | AZ | \$ 10.00 | \$ 20.00 |
| PACIFIC GAS & ELECTRIC CO | CA | \$ - | \$ 8.10 |
| SEMPRA - SAN DIEGO GAS & ELECTRIC CO | CA | \$ - | \$ 10.00 |
| SEMPRA - SOUTHERN CALIFORNIA GAS CO | CA | \$ 4.90 | \$ 14.80 |
| SOUTHWEST GAS CORP CA | CA | \$ 5.00 | \$ 11.00 |
| ATMOS ENERGY CORPORATION CO | CO | \$ 11.00 | \$ 26.28 |
| BLACK HILLS ENERGY - CO | CO | \$ 10.08 | \$ 15.12 |
| COLORADO SPRINGS, CITY OF | CO | \$ 11.79 | \$ 23.58 |
| SOURCEGAS LLC CO | CO | \$ 10.00 | \$ 20.00 |
| XCEL - PUBLIC SERVICE CO OF COLORADO | CO | \$ 11.50 | \$ 32.08 |
| UIL - CONNECTICUT NATURAL GAS CORP | CT | \$ 16.50 | \$ 47.50 |
| UIL - SOUTHERN CONNECTICUT GAS CO | CT | \$ 14.00 | \$ 35.00 |
| YANKEE GAS SERVICES CO | CT | \$ 18.50 | \$ 46.00 |
| WASHINGTON GAS LIGHT CO DC | DC | \$ 9.90 | \$ 17.10 |
| CHESAPEAKE UTILITY CORP DE | DE | \$ 10.50 | \$ 26.00 |
| DELMARVA POWER & LIGHT COMPANY | DE | \$ 11.41 | \$ 34.37 |
| AGL - FLORIDA CITY GAS | FL | \$ 8.00 | \$ 9.50 |
| CHESAPEAKE UTILITY CORP FL | FL | \$ 11.00 | \$ 20.00 |
| GAINESVILLE REGIONAL UTIL GAS DEPT | FL | \$ 9.75 | |
| TECO PEOPLES GAS SYSTEM INC | FL | \$ 12.00 | \$ 25.00 |
| AGL - ATLANTA GAS LIGHT CO | GA | \$ 11.00 | \$ 45.00 |
| LIBERTY UTILITIES GA | GA | \$ 26.31 | \$ 55.60 |
| THE GAS COMPANY | HI | \$ 8.50 | \$ 62.00 |
| ALLIANT - INTERSTATE P&L IA | IA | \$ 12.82 | |
| BLACK HILLS ENERGY - IA | IA | \$ 18.25 | \$ 29.00 |
| LIBERTY UTILITIES IA | IA | \$ 7.95 | \$ 13.00 |
| MIDAMERICAN ENERGY COMPANY IA | IA | \$ 10.00 | |
| AVISTA CORP - ID | ID | \$ 8.00 | \$ 12.00 |
| MONTANA - DAKOTA UTILITIES INTERMOUNTAN | ID | \$ 6.50 | \$ 9.50 |

| NATURAL GAS CUSTOMER CHARGE | | | |
|--|-------|-------------|------------------|
| Company | State | Residential | Small Commercial |
| AGL - NICOR | IL | \$ 13.55 | \$ 20.80 |
| AMEREN - ILLINOIS | IL | \$ 22.31 | \$ 39.77 |
| INTEGRYS - NORTH SHORE GAS CO | IL | \$ 24.48 | \$ 29.56 |
| INTEGRYS - PEOPLES GAS LIGHT & COKE CO | IL | \$ 30.83 | \$ 38.24 |
| LIBERTY UTILITIES IL | IL | \$ 9.90 | \$ 25.00 |
| MIDAMERICAN ENERGY COMPANY IL | IL | \$ 12.69 | \$ 93.18 |
| MT CARMEL PUBLIC UTILITY CO | IL | \$ 15.00 | \$ 15.00 |
| NORTH SHORE GAS CO ¹ | IL | \$ 23.94 | \$ 24.95 |
| PEOPLES GAS LIGHT & COKE CO ² | IL | \$ 30.84 | \$ 25.00 |
| | | | |
| CITIZENS GAS & COKE UTILITY | IN | \$ 9.00 | \$ 22.00 |
| NISOURCE - NIPSCO | IN | \$ 11.00 | \$ 30.00 |
| VECTREN - INDIANA GAS CO INC | IN | \$ 11.25 | \$ 17.00 |
| VECTREN - SOUTHERN INDIANA GAS & ELECTRIC CO | IN | \$ 11.00 | \$ 22.00 |
| | | | |
| ATMOS ENERGY CORPORATION KS | KS | \$ 18.19 | \$ 40.88 |
| BLACK HILLS ENERGY - KS | KS | \$ 17.25 | \$ 26.45 |
| ONEOK - KANSAS GAS SERVICE | KS | \$ 15.35 | \$ 28.65 |
| | | | |
| ATMOS ENERGY CORPORATION - KY | KY | \$ 16.00 | \$ 40.00 |
| DELTA NATURAL GAS CO INC | KY | \$ 20.90 | \$ 31.30 |
| DUKE ENERGY KENTUCKY | KY | \$ 16.00 | \$ 47.50 |
| EQUITABLE RESOURCES KY | KY | \$ 7.50 | \$ 7.50 |
| LOUISVILLE GAS & ELECTRIC CO ³ | KY | \$ 13.50 | \$ 40.00 |
| NISOURCE - COLUMBIA GAS OF KENTUCKY INC | KY | \$ 15.00 | \$ 37.50 |
| RICHMOND NATURAL GAS & SEWAGE WKS | KY | \$ 15.49 | \$ 15.49 |
| | | | |
| ATMOS ENERGY CORPORATION LA | LA | \$ 13.96 | \$ 23.24 |
| ATMOS ENERGY CORPORATION TRANS LA | LA | \$ 14.00 | \$ 14.00 |
| CENTERPOINT ARKLA LA | LA | \$ 10.00 | \$ 16.00 |
| CENTERPOINT ENTEX LA | LA | \$ 11.25 | \$ 16.00 |
| ENTERGY NEW ORLEANS, INC | LA | \$ 20.40 | \$ 112.58 |
| HOLYOKE GAS & ELECTRIC DEPT, CITY OF | MA | \$ 6.00 | \$ 10.00 |
| LIBERTY UTILITIES MA | MA | \$ 9.90 | \$ 22.00 |
| NATIONAL GRID - BOSTON GAS CO | MA | \$ 10.00 | \$ 21.00 |
| NATIONAL GRID - COLONIAL GAS CO | MA | \$ 6.00 | |
| NATIONAL GRID - ESSEX COUNTY GAS CO | MA | \$ 21.00 | \$ 39.00 |
| NISOURCE - COLUMBIA GAS OF MASSACHUSETTS INC | MA | \$ 12.20 | \$ 19.80 |
| UIL - BERKSHIRE GAS CO | MA | \$ 11.42 | \$ 12.51 |
| UNITIL - FITCHBURG GAS & ELECTRIC LIGHT CO | MA | \$ 8.50 | \$ 24.00 |
| | | | |

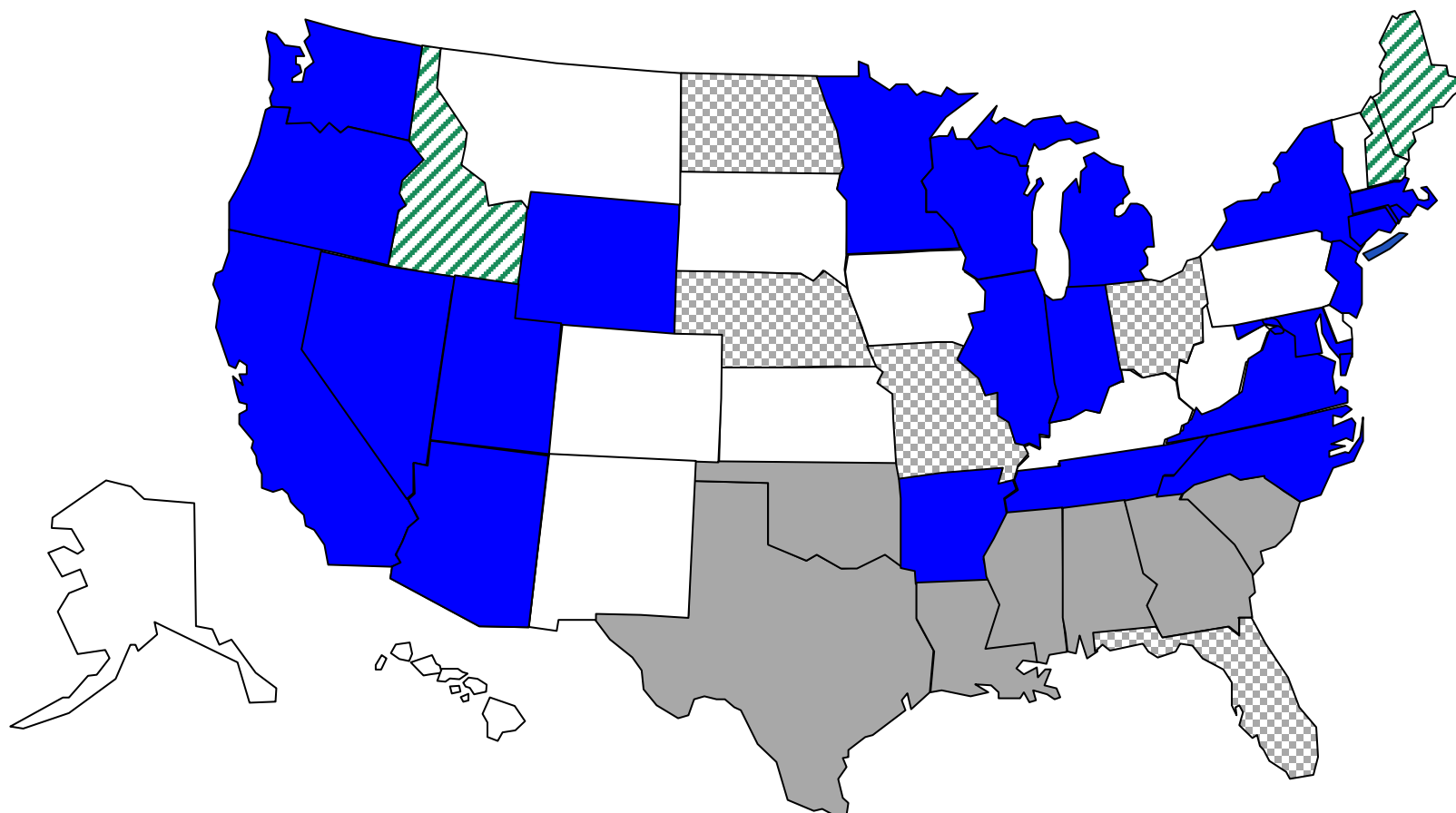
| NATURAL GAS CUSTOMER CHARGE | | | |
|---|-------|-------------|------------------|
| Company | State | Residential | Small Commercial |
| AGL - ELKTON GAS SERVICE | MD | \$ 5.75 | \$ 11.00 |
| BALTIMORE GAS & ELECTRIC CO | MD | \$ 13.00 | \$ 35.00 |
| CHESAPEAKE UTILITY CORP MD | MD | \$ 8.75 | \$ 17.25 |
| EASTON UTILITIES COMMISSION | MD | \$ 9.65 | \$ 33.25 |
| NISOURCE - COLUMBIA GAS OF MARYLAND INC | MD | \$ 13.62 | \$ 36.68 |
| UGI - CENTRAL PENN GAS, INC MD | MD | \$ 9.68 | |
| WASHINGTON GAS LIGHT CO MD | MD | \$ 10.20 | \$ 18.50 |
| | | | |
| ENERGY EAST - MAINE NATURAL GAS | ME | \$ 24.34 | \$ 34.77 |
| GAS NATURAL - BANGOR GAS CO LLC | ME | \$ 14.29 | |
| UNITIL - NORTHERN UTILITIES INC (ME) | ME | \$ 23.06 | \$ 54.77 |
| | | | |
| CONSUMERS ENERGY CO ⁴ | MI | \$ 11.50 | \$ 12.50 |
| CONTINENTAL ENERGY - SEMCO | MI | \$ 11.50 | \$ 11.50 |
| DTE - CITIZENS GAS FUEL CO | MI | \$ 10.50 | \$ 20.00 |
| DTE - MICHIGAN CONSOLIDATED | MI | \$ 10.50 | \$ 26.20 |
| INTEGRYS - MICHIGAN GAS UTILITIES CO | MI | \$ 12.00 | \$ 33.00 |
| INTEGRYS - WISCONSIN PUBLIC SERVICE CORP MI | MI | \$ 5.00 | \$ 7.50 |
| XCEL - NORTHERN STATES POWER CO OF MICHIGAN | MI | \$ 7.25 | \$ 16.00 |
| | | | |
| ALLIANT - INTERSTATE P&L MN | MN | \$ 5.00 | |
| CENTERPOINT ENERGY MN | MN | \$ 9.50 | \$ 15.00 |
| INTEGRYS - MERC MN | MN | \$ 8.50 | \$ 14.50 |
| MONTANA - DAKOTA UTILITIES GREAT PLAINS MN | MN | \$ 6.50 | \$ 20.00 |
| XCEL - NORTHERN STATES POWER CO OF MINNESOTA | MN | \$ 9.00 | \$ 25.00 |
| | | | |
| AMEREN - UNION ELECTRIC CO | MO | \$ 15.00 | \$ 28.83 |
| LACLEDE GAS CO | MO | \$ 20.70 | \$ 25.50 |
| LIBERTY UTILITIES MO | MO | \$ 20.00 | \$ 23.80 |
| SOUTHERN UNION - MISSOURI GAS ENERGY | MO | \$ 27.87 | \$ 40.74 |
| THE EMPIRE DISTRICT GAS COMPANY | MO | \$ 16.50 | \$ 25.00 |
| | | | |
| ATMOS ENERGY CORPORATION MS | MS | \$ 6.95 | \$ 11.27 |
| CENTERPOINT ENTEX MS | MS | \$ 11.29 | \$ 16.96 |
| MONTANA - DAKOTA UTILITIES CO MT | MT | \$ 6.90 | \$ 12.00 |
| NORTHWESTERN ENERGY LLC MT | MT | \$ 7.30 | \$ 19.00 |
| | | | |
| GREENVILLE UTILITIES COMMISSION | NC | \$ 8.00 | \$ 22.00 |
| PIEDMONT NATURAL GAS CO INC NC | NC | \$ 10.00 | \$ 22.00 |
| SCANA - PUBLIC SERVICE CO OF NORTH CAROLINA | NC | \$ 10.00 | \$ 17.50 |
| | | | |
| MONTANA - DAKOTA UTILITIES CO ND | ND | \$ 14.81 | \$ 20.10 |
| MONTANA - DAKOTA UTILITIES GREAT PLAINS ND | ND | \$ 3.50 | \$ 3.50 |
| XCEL - NORTHERN STATES POWER CO OF NORTH DAKOTA | ND | \$ 18.48 | \$ 30.00 |
| | | | |

| NATURAL GAS CUSTOMER CHARGE | | | |
|---|-------|-------------|------------------|
| Company | State | Residential | Small Commercial |
| BLACK HILLS ENERGY - NE | NE | \$ 13.50 | \$ 18.50 |
| METROPOLITAN UTILITIES DISTRICT | NE | \$ 13.72 | |
| MIDAMERICAN ENERGY COMPANY NE | NE | \$ 10.00 | \$ 135.10 |
| NORTHWESTERN ENERGY LLC NE | NE | \$ 8.00 | \$ 9.00 |
| SOURCEGAS LLC NE | NE | \$ 15.00 | \$ 23.05 |
| | | | |
| LIBERTY UTILITIES NH | NH | \$ 19.85 | \$ 46.71 |
| Liberty Utilities EnergyNorth | NH | \$ 22.04 | \$ 48.24 |
| NATIONAL GRID - ENERGY NORTH NATURAL GAS INC | NH | \$ 8.00 | \$ 11.00 |
| UNITIL - NORTHERN UTILITIES, INC. (NH) | NH | \$ 20.01 | \$ 63.18 |
| | | | |
| AGL - ELIZABETHTOWN GAS CO | NJ | \$ 8.00 | \$ 16.50 |
| NEW JERSEY NATURAL GAS CO | NJ | \$ 8.25 | \$ 25.00 |
| PUBLIC SERVICE ELECTRIC & GAS CO | NJ | \$ 5.46 | \$ 10.44 |
| SOUTH JERSEY GAS CO | NJ | \$ 9.63 | \$ 29.16 |
| | | | |
| CONTINENTAL ENERGY - NEW MEXICO GAS | NM | \$ 11.50 | \$ 20.00 |
| NATURAL GAS PROCESSING - ZIA NATURAL GAS CO | NM | \$ 10.96 | \$ 300.00 |
| | | | |
| NV ENERGY | NV | \$ 14.00 | \$ 18.00 |
| SOUTHWEST GAS CORP NV | NV | \$ 10.80 | \$ 25.80 |
| | | | |
| CENTRAL HUDSON GAS & ELECTRIC CORP ⁵ | NY | \$ 24.00 | \$ 37.00 |
| CONSOLIDATED EDISON - ORANGE & ROCKLAND UTILITY INC | NY | \$ 18.63 | \$ 29.08 |
| CONSOLIDATED EDISON CO OF NEW YORK | NY | \$ 18.60 | \$ 30.45 |
| CORNING NATURAL GAS CORP | NY | \$ 19.75 | \$ 1,220.00 |
| ENERGY EAST - NYSEG | NY | \$ 16.30 | \$ 23.60 |
| ENERGY EAST - ROCHESTER GAS & ELECTRIC | NY | \$ 16.30 | |
| NATIONAL FUEL GAS DISTRIBUTION CORP - NEW YORK | NY | \$ 15.54 | \$ 7.10 |
| NATIONAL GRID - LONG ISLAND | NY | \$ 21.66 | \$ 17.60 |
| NATIONAL GRID - NIAGARA MOHAWK | NY | \$ 20.35 | \$ 24.22 |
| NATIONAL GRID - NY CITY | NY | \$ 45.06 | \$ 76.91 |
| ST LAWRENCE GAS CO INC | NY | \$ 15.00 | \$ 25.00 |
| VALLEY ENERGY, INC. | NY | \$ 7.62 | \$ 7.62 |
| DOMINION EAST OHIO | OH | \$ 23.58 | \$ 26.00 |
| DUKE ENERGY OHIO | OH | \$ 33.03 | \$ 91.64 |
| NISOURCE - COLUMBIA GAS OF OHIO INC | OH | \$ 24.69 | \$ 24.69 |
| VECTREN ENERGY DELIVERY OF OHIO | OH | \$ 18.37 | \$ 20.00 |
| | | | |
| ARKANSAS OKLAHOMA GAS CORP - OK | OK | \$ 15.65 | \$ 30.15 |
| CENTERPOINT ARKLA OK | OK | \$ 13.24 | \$ 43.59 |
| ONEOK - OKLAHOMA NATURAL GAS CO | OK | \$ 14.73 | \$ 30.28 |
| | | | |
| AVISTA CORP - OR | OR | \$ 8.00 | \$ 14.00 |
| MONTANA - DAKOTA UTILITIES CASCADE OR | OR | \$ 3.00 | \$ 3.00 |
| NORTHWEST NATURAL GAS CO OR | OR | \$ 8.00 | \$ 15.00 |
| | | | |





| NATURAL GAS CUSTOMER CHARGE | | | |
|---|-------|-------------|------------------|
| Company | State | Residential | Small Commercial |
| EQUITABLE RESOURCES PA | PA | \$ 13.25 | \$ 17.00 |
| NATIONAL FUEL GAS DISTRIBUTION CORP PA | PA | \$ 12.00 | |
| NISOURCE - COLUMBIA GAS OF PENNSYLVANIA | PA | \$ 16.75 | \$ 21.25 |
| PECO ENERGY CO | PA | \$ 11.75 | \$ 28.55 |
| PEOPLES NATURAL GAS COMPANY | PA | \$ 13.95 | \$ 14.88 |
| PHILADELPHIA GAS WORKS | PA | \$ 12.00 | \$ 18.00 |
| UGI - CENTRAL PENN GAS, INC PA | PA | \$ 14.60 | \$ 30.40 |
| UGI - PENN NATURAL GAS PA | PA | \$ 2.19 | \$ 2.80 |
| UGI - UGI UTILITIES, INC PA | PA | \$ 8.55 | \$ 8.55 |
| | | | |
| NATIONAL GRID - RI | RI | \$ 13.00 | \$ 22.00 |
| | | | |
| GREENWOOD COMMISSION OF PUBLIC WORKS | SC | \$ 10.00 | \$ 16.25 |
| PIEDMONT NATURAL GAS CO INC SC | SC | \$ 17.45 | \$ 44.00 |
| SCANA - SOUTH CAROLINA ELECTRIC & GAS CO | SC | \$ 10.90 | \$ 21.54 |
| | | | |
| MIDAMERICAN ENERGY COMPANY SD | SD | \$ 8.87 | \$ 304.94 |
| MONTANA - DAKOTA UTILITIES CO SD | SD | \$ 8.40 | \$ 10.50 |
| NORTHWESTERN ENERGY LLC SD | SD | \$ 8.00 | \$ 10.00 |
| | | | |
| AGL - CHATTANOOGA GAS CO ⁶ | TN | \$ 14.50 | \$ 27.00 |
| ATMOS ENERGY CORPORATION TN ⁷ | TN | \$ 15.65 | \$ 14.15 |
| KNOXVILLE UTILITIES BOARD | TN | \$ 6.65 | \$ 13.00 |
| MEMPHIS LIGHT GAS & WATER DIVISION | TN | \$ 10.00 | |
| MIDDLE TENNESSEE NATURAL GAS UTIL DIST | TN | \$ 7.00 | \$ 16.00 |
| PIEDMONT NATURAL GAS CO INC TN | TN | \$ 17.45 | \$ 44.00 |
| | | | |
| ATMOS ENERGY CORPORATION - Mid TX | TX | \$ 18.62 | \$ 40.02 |
| ATMOS ENERGY CORPORATION - West TX | TX | \$ 15.50 | \$ 38.25 |
| CENTERPOINT ENTEX TX | TX | \$ 15.29 | \$ 17.24 |
| CenterPoint Energy Resources | TX | \$ 15.29 | \$ 17.24 |
| CORPUS CHRISTI, CITY OF - GAS DIV | TX | \$ 11.44 | \$ 26.30 |
| COSERV GAS, LTD | TX | \$ 7.00 | \$ 13.30 |
| | | | |
| QUESTAR GAS COMPANY UT | UT | \$ 6.75 | \$ 18.25 |
| AGL - VIRGINIA NATURAL GAS | VA | \$ 11.00 | \$ 14.10 |
| ATMOS ENERGY CORPORATION VA | VA | \$ 10.98 | \$ 22.00 |
| CHARLOTTESVILLE, CITY OF | VA | \$ 10.00 | \$ 10.00 |
| NISOURCE - COLUMBIA GAS OF VIRGINIA INC | VA | \$ 18.00 | \$ 22.00 |
| COLUMBIA GAS OF VIRGINIA INC ⁸ | VA | \$ 18.00 | \$ 22.00 |
| SOUTHWESTERN VIRGINIA GAS CO | VA | \$ 9.55 | \$ 12.75 |
| WASHINGTON GAS LIGHT CO VA | VA | \$ 11.25 | \$ 20.45 |
| | | | |
| VERMONT GAS SYSTEMS INC | VT | \$ 19.80 | \$ 32.82 |
| | | | |
| AVISTA CORP - WA | WA | \$ 9.00 | \$ 87.40 |
| MONTANA - DAKOTA UTILITIES CASCADE WA | WA | \$ 4.00 | \$ 10.00 |

| NATURAL GAS CUSTOMER CHARGE | | | |
|--|-------|-------------|------------------|
| Company | State | Residential | Small Commercial |
| NORTHWEST NATURAL GAS CO WA | WA | \$ 7.00 | \$ 15.00 |
| PUGET SOUND ENERGY | WA | \$ 10.29 | \$ 33.42 |
| ALLETE - SUPERIOR WATER LIGHT & POWER CO | WI | \$ 7.25 | \$ 15.00 |
| ALLIANT - WISCONSIN POWER & LIGHT CO | WI | \$ 1.51 | |
| CITY GAS CO | WI | \$ 8.50 | \$ 12.75 |
| INTEGRYS - WISCONSIN PUBLIC SERVICE CORP WI | WI | \$ 17.00 | \$ 30.00 |
| MADISON GAS & ELECTRIC CO | WI | \$ 21.60 | \$ 24.00 |
| WE ENERGIES | WI | \$ 9.90 | \$ 25.50 |
| WISCONSIN GAS CO | WI | \$ 9.90 | \$ 25.50 |
| XCEL - NORTHERN STATES POWER CO OF WISCONSIN | WI | \$ 10.25 | \$ 20.00 |
| DOMINION HOPE | WV | \$ 8.99 | \$ 17.97 |
| EQUITABLE RESOURCES - Peoples WV | WV | \$ 8.50 | \$ 12.50 |
| MOUNTAINEER GAS CO | WV | \$ 10.10 | \$ 31.75 |
| MONTANA - DAKOTA UTILITIES CO WY | WY | \$ 12.00 | \$ 27.00 |
| QUESTAR GAS COMPANY WY | WY | \$ 11.00 | \$ 32.50 |
| SOURCEGAS LLC WY | WY | \$ 15.00 | \$ 70.00 |
| Source: AGA Report, "NATURAL GAS UTILITY RATE STRUCTURE: THE CUSTOMER CHARGE COMPONENT – 2015 UPDATE" May 28, 2015 and Internet Search of Natural Gas Utility Tariffs | | | |
| Notes: | | | |
| ¹ North Shore Gas Co. residential heating charge is \$23.94 and the residential non heating charge is \$15.70. Small commercial customer charge per meter class (up to 700 cf/hr) \$24.95, (Over 700 and no more than 2300 cf/hr) \$78.75, and (over 2300 cf/hr) \$223.10. | | | |
| ² People Gas Light & Coke Co. residential heating charge is \$30.84 and the residential non heating charge is \$16.37. | | | |
| ³ Louisville Gas & Electric Co. small commercial charge meter capacity (<5000 cf/hr) \$40.00 and (≥5000 cf/hr) \$180.00. ⁴ Consumer Energy Co. small commercial charge GS-1 \$12.50, GS-2 \$19.50, and GS-3 \$576.80. | | | |
| ⁵ Central Hudson Gas & Electric Corp. residential charge contains three step increase moving from \$24 to \$25 in 2016 and then to \$26 in 2017. | | | |
| ⁶ AGL - Chattanooga Gas Co. residential customer charge is \$16.00 for the months of Nov. through Apr. and \$13.00 for the months of May through Sep. Average \$14.50. The small commercial charge is \$29.00 for the months of Nov. through Apr. and \$25.00 for the months of May through Sep. Average \$27.00. | | | |
| ⁷ ATMOS Energy Corp. residential customer charge is \$17.15 for the months of Oct through Apr and \$14.15 for the months of May through Sep. | | | |

Chesapeake Utilities Corporation Non-Volumetric Ratemaking Approaches – Gas Utilities

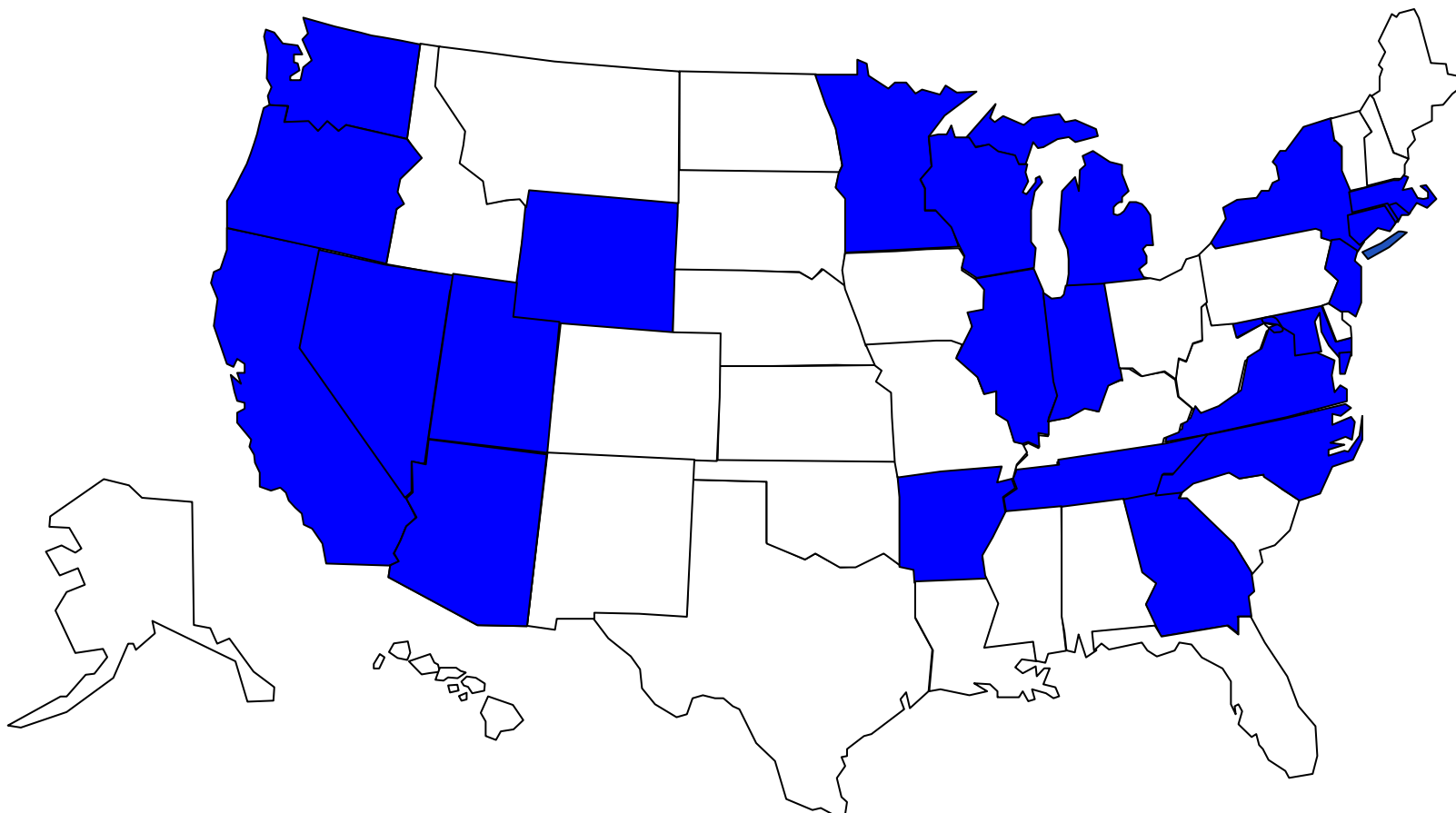


(1) As of September 2015

-  Approved Revenue Decoupling – In addition to Decoupling, IL also has SFV
-  Pending Revenue Decoupling
-  Rate Stabilization Tariff – In addition to Decoupling, TN also has Rate Stabilization
-  SFV Rate Design – In addition to Rate Stabilization, TX, OK, and GA also have SFV

Chesapeake Utilities Corporation

Approved Revenue Decoupling Mechanisms – Gas Utilities



(1) As of Septmeber 2015

Approved Revenue Decoupling

Approved Revenue Decoupling – Gas Utilities

| Utility | State | Year Approved | Type | Applies to All Classes | Revenue/Rate Caps |
|------------------------------------|-------|---------------|------------|------------------------|-------------------|
| Arkansas Oklahoma Gas | AR | 2007 | Full w/WNA | Yes | No |
| Arkansas Western Gas | AR | 2007 | Full w/WNA | No | No |
| CenterPoint Energy | AR | 2007 | Full w/WNA | No | No |
| Southwest Gas | AZ | 2012 | Full | No | Yes |
| UNS Gas | AZ | 2012 | Partial | No | Yes |
| Pacific Gas and Electric | CA | 2002 | Full | Yes | No |
| San Diego Gas and Electric | CA | 2002 | Full | Yes | No |
| Southern California Gas | CA | 2002 | Full | Yes | No |
| Southwest Gas | CA | 2002 | Full | Yes | No |
| Connecticut Natural Gas | CT | 2014 | Full | Yes | No |
| Liberty Utilities | GA | 2011 | Full | Yes | No |
| North Shore Gas Company | IL | 2008 | Full | No | No |
| Peoples Gas Light and Coke Company | IL | 2008 | Full | No | No |

Approved Revenue Decoupling – Gas Utilities

| Utility | State | Year Approved | Type | Applies to All Classes | Revenue/Rate Caps |
|---|-------|---------------|------------|------------------------|-------------------|
| Citizens Energy Group | IN | 2007 | Full | No | No |
| Vectren Indiana Gas | IN | 2006 | Full w/WNA | No | No |
| Vectren Southern Indiana G&E | IN | 2006 | Full w/WNA | No | No |
| Boston Gas and Colonial Gas | MA | 2010 | Full | No | Yes |
| Columbia Gas of Massachusetts (Bay State Gas) | MA | 2009 | Full | No | Yes |
| Fitchburg Gas and Electric | MA | 2011 | Full | Yes | Yes |
| New England Gas | MA | 2010 | Full | No | Yes |
| National Grid Massachusetts | MA | 2011 | Full | No | Yes |
| Liberty Utilities | MA | 2010 | Full | No | Yes |
| Columbia Gas of Maryland | MD | 2013 | Partial | No | Yes |
| Baltimore Gas and Electric | MD | 1998 | Full | No | No |
| Washington Gas Light | MD | 2005 | Full | No | Yes |
| Chesapeake | MD | 2006 | Full | No | No |
| Integrus Michigan Gas Utilities | MI | 2010 | Full w/WNA | No | Yes |

Approved Revenue Decoupling – Gas Utilities

| Utility | State | Year Approved | Type | Applies to All Classes | Revenue/Rate Caps |
|---|-------|---------------|------------|------------------------|-------------------|
| DTE Energy (Michigan Consolidated Gas) | MI | 2010 | Full w/WNA | No | No |
| Michigan Gas Utilities | MI | 2015 | Partial | No | Yes |
| CenterPoint Minnesota Gas | MN | 2008 | Partial | No | Yes |
| Minnesota Energy Resources | MN | 2012 | Full | No | Yes |
| Piedmont Natural Gas | NC | 2005 | Full | No | No |
| Public Service Co. of North Carolina | NC | 2008 | Full | No | No |
| New Jersey Natural Gas | NJ | 2006 | Full | No | Yes |
| South Jersey Gas | NJ | 2006 | Full | No | Yes |
| Southwest Gas | NV | 2009 | Full | No | No |
| Central Hudson Gas & Electric | NY | 2009 | Full w/WNA | No | No |
| Consolidated Edison of New York | NY | 2007 | Full w/WNA | No | No |
| Corning Gas | NY | 2009 | Full w/WNA | No | Yes |
| National Fuel Gas Distribution | NY | 2007 | Full w/WNA | No | No |
| National Grid Long Island (Keyspan Gas) | NY | 2009 | Full w/WNA | No | Yes |

Approved Revenue Decoupling – Gas Utilities

| Utility | State | Year Approved | Type | Applies to All Classes | Revenue/Rate Caps |
|---|-------|---------------|------------|------------------------|-------------------|
| National Grid New York (Brooklyn Union Gas) | NY | 2009 | Full w/WNA | No | Yes |
| National Grid Niagara Mohawk | NY | 2009 | Full w/WNA | No | Yes |
| New York State Electric & Gas Corporation | NY | 2010 | Full w/WNA | No | Yes |
| Orange and Rockland Utilities | NY | 2009 | Full w/WNA | No | Yes |
| Rochester Gas and Electric | NY | 2009 | Full w/WNA | No | Yes |
| St. Lawrence Gas | NY | 2009 | Full w/WNA | No | Yes |
| Cascade Natural Gas | OR | 2006 | Full | No | No |
| Northwest Natural Gas | OR | 2002 | Full w/WNA | No | No |
| National Grid Narragansett | RI | 2012 | Full w/WNA | No | No |
| Chattanooga Gas | TN | 2010 | Full w/WNA | No | Yes |
| Questar Gas Company | UT | 2006 | Full w/WNA | No | Yes |
| Columbia Gas of Virginia | VA | 2009 | Full w/WNA | No | No |
| Virginia Natural Gas | VA | 2006 | Full w/WNA | No | No |
| Washington Gas Light | VA | 2010 | Full w/WNA | No | Yes |

Approved Revenue Decoupling – Gas Utilities

| Utility | State | Year Approved | Type | Applies to All Classes | Revenue/Rate Caps |
|--------------------------|-------|---------------|------------------------|------------------------|-------------------|
| Avista Corp. | WA | 2006 | Partial | No | Yes |
| Cascade Natural Gas | WA | 2006 | Partial (Full pending) | No | No |
| Puget Sound Energy | WA | 2013 | Full | Yes | Yes |
| Wisconsin Public Service | WI | 2008 | Full | No | Yes |
| Questar Gas Company | WY | 2009 | Full w/WNA | No | No |
| SourceGas | WY | 2011 | Full w/WNA | No | No |

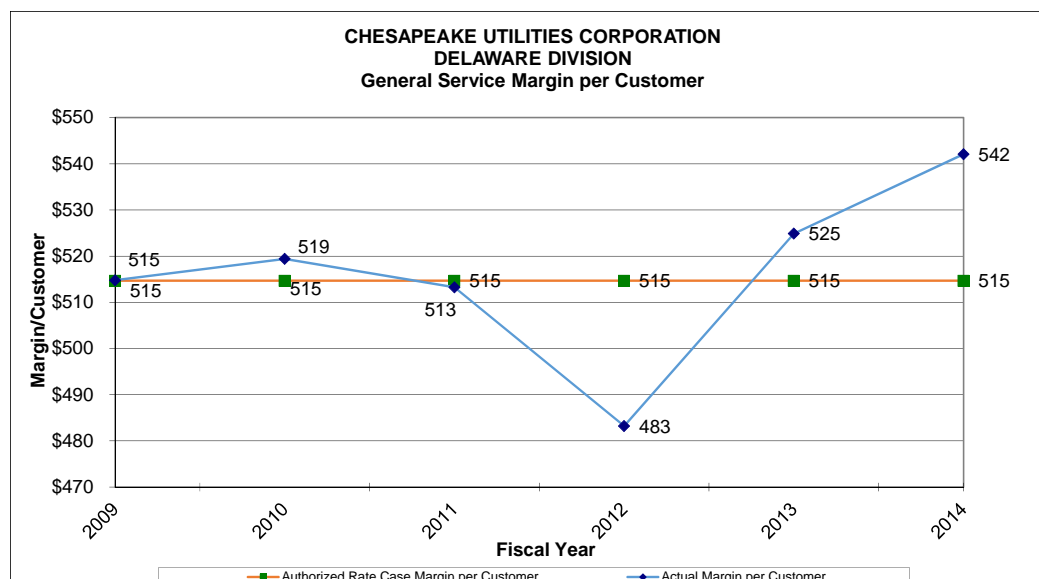
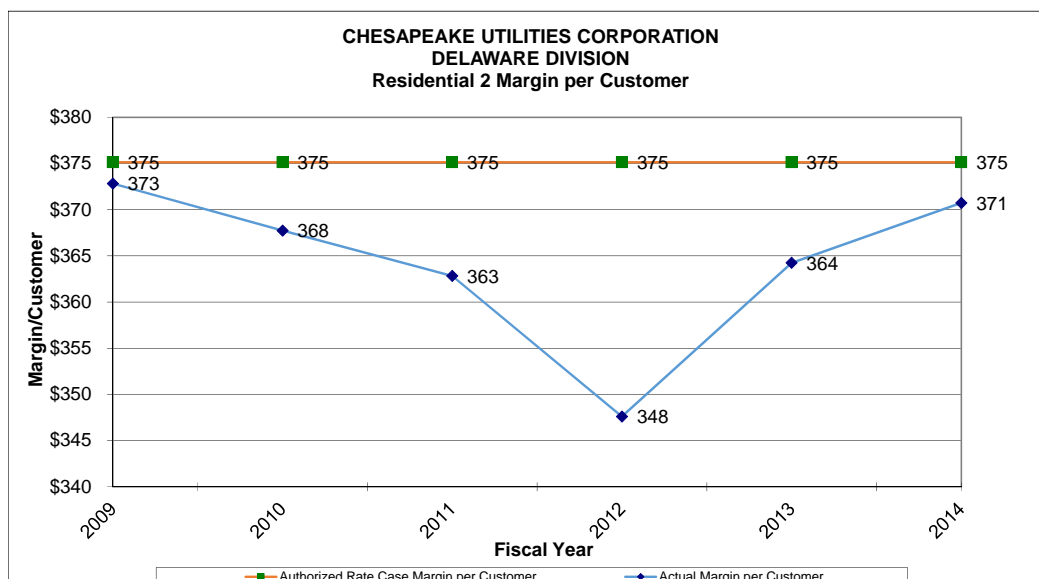
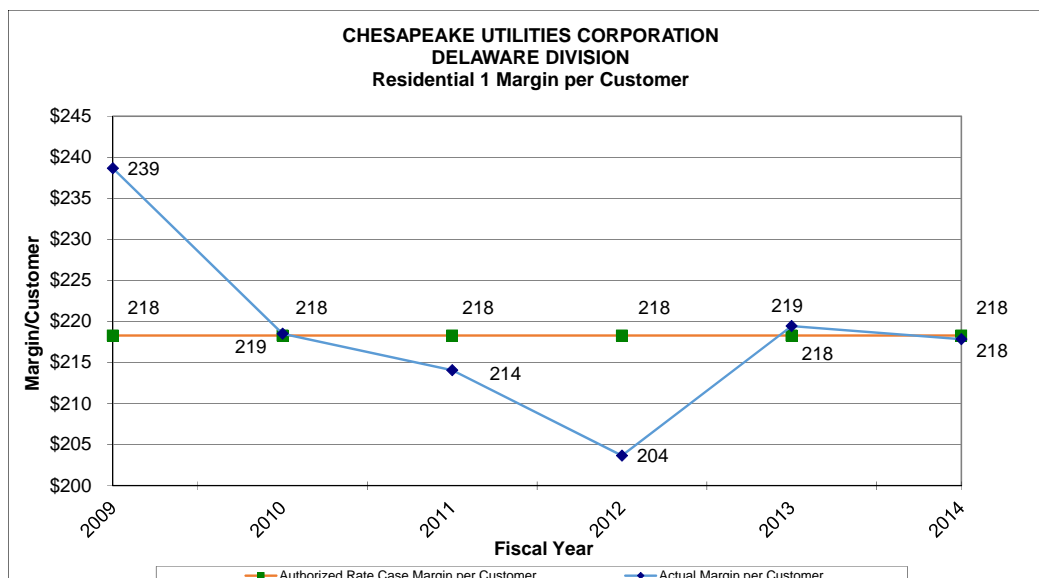
| | Average Number of Customers | | | Actual Throughput (Ccf) | | |
|------|-----------------------------|--------|-----------------|-------------------------|------------|-----------------|
| | RS-1 | RS-2 | General Service | RS-1 | RS-2 | General Service |
| 2009 | 5,953 | 30,142 | 2,564 | 1,578,200 | 20,701,490 | 2,475,020 |
| 2010 | 4,678 | 32,384 | 2,584 | 945,840 | 22,356,970 | 2,606,060 |
| 2011 | 4,486 | 33,519 | 2,594 | 841,490 | 22,219,310 | 2,522,080 |
| 2012 | 4,363 | 34,580 | 2,616 | 644,660 | 19,323,990 | 2,016,780 |
| 2013 | 4,802 | 35,221 | 2,706 | 929,970 | 23,321,100 | 2,790,420 |
| 2014 | 4,777 | 36,556 | 2,736 | 954,990 | 25,939,930 | 3,121,860 |

| | Normalized Throughput (Ccf) (2) | | | Heating Degree Days | | | |
|------|---------------------------------|------------|-----------------|---------------------|---------|-------|--------|
| | RS-1 | RS-2 | General Service | AHDD | NHDD(1) | Diff | % |
| 2009 | 1,553,104 | 20,210,130 | 2,409,228 | 4,729 | 4,616 | 113 | 2.4% |
| 2010 | 908,315 | 21,352,545 | 2,479,876 | 4,831 | 4,616 | 215 | 4.7% |
| 2011 | 907,594 | 24,129,324 | 2,754,789 | 4,221 | 4,616 | (395) | -8.6% |
| 2012 | 755,356 | 22,716,180 | 2,420,830 | 3,936 | 4,616 | (680) | -14.7% |
| 2013 | 926,028 | 23,209,317 | 2,776,897 | 4,638 | 4,616 | 22 | 0.5% |
| 2014 | 917,566 | 24,832,482 | 2,991,377 | 4,826 | 4,616 | 210 | 4.5% |

| | Authorized Rate Case Use per Customer | | | Actual Use per Customer | | | Weather Normalized Use per Customer | | |
|------|---------------------------------------|------|-----------------|-------------------------|------|-----------------|-------------------------------------|------|-----------------|
| | RS-1 | RS-2 | General Service | RS-1 | RS-2 | General Service | RS-1 | RS-2 | General Service |
| 2009 | 197 | 700 | 961 | 265 | 687 | 965 | 261 | 670 | 940 |
| 2010 | 197 | 700 | 961 | 202 | 690 | 1008 | 194 | 659 | 960 |
| 2011 | 197 | 700 | 961 | 188 | 663 | 972 | 202 | 720 | 1,062 |
| 2012 | 197 | 700 | 961 | 148 | 559 | 771 | 173 | 657 | 925 |
| 2013 | 197 | 700 | 961 | 194 | 662 | 1031 | 193 | 659 | 1,026 |
| 2014 | 197 | 700 | 961 | 200 | 710 | 1141 | 192 | 679 | 1,093 |

| | Authorized Rate Case Margin per Customer | | | Actual Margin per Customer | | | Margin with RNA per Customer | | |
|------|--|-----------|-----------------|----------------------------|-----------|-----------------|------------------------------|-----------|-----------------|
| | RS-1 | RS-2 | General Service | RS-1 | RS-2 | General Service | RS-1 | RS-2 | General Service |
| 2009 | \$ 218.29 | \$ 375.14 | \$ 514.69 | \$ 238.66 | \$ 372.83 | \$ 514.79 | \$ 241.59 | \$ 383.00 | \$ 526.75 |
| 2010 | \$ 218.29 | \$ 375.14 | \$ 514.69 | \$ 218.51 | \$ 367.74 | \$ 519.41 | \$ 216.92 | \$ 363.43 | \$ 526.81 |
| 2011 | \$ 218.29 | \$ 375.14 | \$ 514.69 | \$ 214.07 | \$ 362.83 | \$ 513.27 | \$ 217.79 | \$ 376.72 | \$ 516.69 |
| 2012 | \$ 218.29 | \$ 375.14 | \$ 514.69 | \$ 203.67 | \$ 347.61 | \$ 483.23 | \$ 211.13 | \$ 374.27 | \$ 519.12 |
| 2013 | \$ 218.29 | \$ 375.14 | \$ 514.69 | \$ 219.45 | \$ 364.25 | \$ 524.88 | \$ 222.01 | \$ 373.47 | \$ 534.68 |
| 2014 | \$ 218.29 | \$ 375.14 | \$ 514.69 | \$ 217.85 | \$ 370.74 | \$ 542.08 | \$ 218.75 | \$ 374.77 | \$ 546.15 |

| Adjusted Twelve Months Ended | Overall ROR | Return on Equity | Approved ROR | Total Rate Base | Return Requirement | Achieved NOI | Return Excess / (Deficiency) | Revenue Excess / (Deficiency) |
|---------------------------------|----------------|---------------------|-----------------|--------------------|-----------------------|-----------------|------------------------------------|-------------------------------------|
| | | | | | | | | 1.66871 |
| 30-Jun-2015 | 5.52% | 5.70% | 8.91% | \$ 65,427,754 | \$ 5,829,613 | \$ 3,614,198 | \$ (2,215,415) | \$ (3,696,885) |
| 31-Dec-2014 | 5.42% | 5.57% | 8.91% | \$ 63,392,476 | \$ 5,648,270 | \$ 3,435,127 | \$ (2,213,143) | \$ (3,693,093) |
| 31-Dec-2013 | 8.26% | 8.95% | 8.91% | \$ 57,847,779 | \$ 5,154,237 | \$ 4,776,925 | \$ (377,312) | \$ (629,624) |
| 31-Dec-2012 | 8.87% | 9.83% | 8.91% | \$ 53,623,281 | \$ 4,777,834 | \$ 4,758,718 | \$ (19,116) | \$ (31,900) |
| 31-Dec-2011 | 8.73% | 9.75% | 8.91% | \$ 53,396,661 | \$ 4,757,643 | \$ 4,661,772 | \$ (95,870) | \$ (159,980) |
| 31-Dec-2010 | 8.16% | 9.05% | 8.91% | \$ 52,705,256 | \$ 4,696,038 | \$ 4,301,571 | \$ (394,467) | \$ (658,252) |
| 31-Dec-2009 | 7.48% | 7.95% | 8.91% | \$ 54,008,985 | \$ 4,812,201 | \$ 4,041,476 | \$ (770,724) | \$ (1,286,116) |
| | | | | | | | \$ (6,086,048) | \$ (10,155,850) |



Chesapeake Utilities Corporation
Delaware Division
Calculation of Quarterly Revenue Normalization Adjustment (DEMONSTRATION TEMPLATE)
Billing Months of Apr-14, May-14, Jun-14

| Line No. | Revenue Normalization Adjustment | Current Quarter | 1st Quarter 2014 | 4th Quarter 2013 | 3rd Quarter 2013 | Annual True- Up | Total |
|----------|--|-----------------|---------------------|---------------------|---------------------|--------------------|---------|
| 1 | Quarterly True-Up (line 8 + line 13) | \$361,961 | | | | | |
| 2 | Projected Firm Sales Volumes (Ccf) (line 28) | 27,546,407 | | | | | |
| 3 | Revenue Normalization Adjustment per Ccf (line 1/line 2) [1] | \$0.013 | (\$0.006) | \$0.033 | \$0.016 | \$0.015 | \$0.057 |

[1] Negative = Surcharge / Positive = Credit

| | |
|----------------|--------|
| Starting Month | Apr-14 |
|----------------|--------|

| Description | Estimated (Last Quarter Filing) | | | | | | Actual | | | | | | True-Up (Actual - Estimated) | | | | | | Quarter |
|-------------|--|-----------|---------|-------------|-----------|-----------|------------|-----------|---------|-------------|-----------|-----------|------------------------------|-----------|-------|------------|--------|-----------|------------------|
| | Mar-14 | | | | | | Mar-14 | | | | | | Mar-14 | | | | | | True-Up |
| | RS1 | RS1-E | RS2 | RS2-E | GS | GS-E | RS1 | RS1-E | RS2 | RS2-E | GS | GS-E | RS1 | RS1-E | RS2 | RS2-E | GS | GS-E | Total |
| 4 | Normalized Margin per Customer (Rate Case) | 27.43 | 33.43 | 50.13 | 68.88 | 65.90 | 95.90 | 27.43 | 33.43 | 50.13 | 68.88 | 65.90 | 95.90 | | | | | | |
| 5 | Actual Margin per Customer | \$26.09 | \$35.75 | \$44.30 | \$60.59 | \$65.70 | \$80.04 | \$25.83 | \$35.39 | \$43.86 | \$59.99 | \$65.05 | \$79.24 | | | | | | |
| 6 | Difference per Customer (line 5 - line 4) | \$ (1.33) | \$ 2.32 | \$ (5.83) | \$ (8.29) | \$ (0.20) | \$ (15.87) | \$ (1.59) | \$ 1.97 | \$ (6.27) | \$ (8.89) | \$ (0.86) | \$ (16.66) | | | | | | |
| 7 | Number of Customers | 5,020 | 12 | 36,579 | 89 | 2,826 | 9 | 5,020 | 12 | 36,579 | 89 | 2,826 | 9 | | | | | | |
| 8 | RNA Adjustment (line 6 * line 7) | (\$6,693) | \$28 | (\$213,353) | (\$738) | (\$579) | (\$143) | (\$7,990) | \$24 | (\$229,396) | (\$791) | (\$2,417) | (\$150) | (\$1,297) | (\$4) | (\$16,043) | (\$53) | (\$1,838) | (\$7) (\$19,242) |

| Description | Actual | | | | | | Actual | | | | | | Estimated | | | | | | Quarter |
|-------------|--|----------|---------|----------|----------|----------|-----------|----------|---------|-----------|----------|----------|-----------|----------|---------|----------|-----------|----------|------------------|
| | Apr-14 | | | | | | May-14 | | | | | | Jun-14 | | | | | | True-Up |
| | RS1 | RS1-E | RS2 | RS2-E | GS | GS-E | RS1 | RS1-E | RS2 | RS2-E | GS | GS-E | RS1 | RS1-E | RS2 | RS2-E | GS | GS-E | Total |
| 9 | Normalized Margin per Customer (Rate Case) | 19.55 | 25.55 | 34.63 | 53.38 | 45.64 | 75.64 | 14.76 | 20.76 | 23.30 | 42.05 | 34.50 | 64.50 | 12.44 | 18.44 | 17.45 | 36.20 | 29.67 | 59.67 |
| 10 | Actual Margin per Customer | \$ 21.00 | \$32.13 | \$ 36.66 | \$ 55.92 | \$ 51.14 | \$ 66.86 | \$ 15.72 | \$24.06 | \$ 27.88 | \$ 42.89 | \$ 38.10 | \$ 59.29 | \$ 12.82 | \$22.69 | \$ 20.20 | \$ 35.81 | \$ 30.73 | \$ 56.45 |
| 11 | Difference per Customer (line 10 - line 9) | \$ 1.44 | \$ 6.57 | \$ 2.03 | \$ 2.54 | \$ 5.50 | \$ (8.78) | \$ 0.97 | \$ 3.30 | \$ 4.58 | \$ 0.84 | \$ 3.60 | \$ (5.20) | \$ 0.38 | \$ 4.26 | \$ 2.75 | \$ (0.39) | \$ 1.05 | \$ (3.22) |
| 12 | Number of Customers | 4,997 | 12 | 36,564 | 103 | 2,796 | 9 | 4,845 | 12 | 36,158 | 111 | 2,740 | 9 | 4,834 | 12 | 36,084 | 123 | 2,700 | 9 |
| 13 | RNA Adjustment (line 11 * line 12) | \$7,212 | \$79 | \$74,136 | \$262 | \$15,383 | (\$79) | \$4,682 | \$40 | \$165,630 | \$93 | \$9,871 | (\$47) | \$1,849 | \$51 | \$99,276 | (\$48) | \$2,842 | (\$29) \$381,203 |

| Description | Projected | | | | | | Total |
|---|-----------|-------|------------|--------|-----------|--------|------------|
| | RS1 | RS1-E | RS2 | RS2-E | GS | GS-E | |
| Normalized Ccf/Customer (Next 12 Months) | | | | | | | |
| Jul-14 Normalized Ccf/Customer | 3.36 | 3.03 | 10.65 | 9.58 | 14.62 | 13.16 | 54.40 |
| Aug-14 Normalized Ccf/Customer | 2.98 | 2.69 | 9.25 | 8.33 | 12.25 | 11.02 | 46.52 |
| Sep-14 Normalized Ccf/Customer | 2.96 | 2.66 | 9.11 | 8.20 | 13.37 | 12.03 | 48.33 |
| Oct-14 Normalized Ccf/Customer | 3.85 | 3.46 | 16.01 | 14.41 | 21.23 | 19.11 | 78.08 |
| Nov-14 Normalized Ccf/Customer | 9.12 | 8.21 | 44.34 | 39.91 | 50.24 | 45.22 | 197.04 |
| Dec-14 Normalized Ccf/Customer | 20.77 | 18.70 | 88.43 | 79.59 | 129.30 | 116.37 | 453.17 |
| Jan-15 Normalized Ccf/Customer | 30.65 | 27.59 | 122.76 | 110.48 | 194.06 | 174.65 | 660.19 |
| Feb-15 Normalized Ccf/Customer | 37.81 | 34.03 | 138.70 | 124.83 | 231.42 | 208.28 | 775.07 |
| Mar-15 Normalized Ccf/Customer | 31.40 | 28.26 | 111.99 | 100.79 | 203.07 | 182.76 | 658.26 |
| Apr-15 Normalized Ccf/Customer | 16.80 | 15.12 | 65.24 | 58.72 | 99.95 | 89.95 | 345.77 |
| May-15 Normalized Ccf/Customer | 7.90 | 7.11 | 31.06 | 27.96 | 43.24 | 38.92 | 156.18 |
| Jun-15 Normalized Ccf/Customer | 3.60 | 3.24 | 13.42 | 12.08 | 18.70 | 16.83 | 67.86 |
| Total Normalized Ccf/Customer | 171 | 154 | 661 | 595 | 1,031 | 928 | 3,540.85 |
| Current Customer Count (as of Jun-15) | 4,834 | 12 | 36,084 | 123 | 2,700 | 9 | 43,762 |
| Firm Sales Volume (Ccf) (line 26 * line 27) | 827,511 | 1,849 | 23,850,626 | 73,170 | 2,784,897 | 8,355 | 27,546,407 |

Chesapeake Utilities Corporation
Delaware Division
Calculation of Annual Revenue Normalization Adjustment (DEMONSTRATION TEMPLATE)

Annual Revenue Normalization Adjustment to be Effective January 1, 2014

| Line No. | | Projected to Be Collected | | | Actually Collected | | | Monthly (Over)/Under |
|----------|---|---------------------------|----------|-------------|--------------------|-----------|--------------|-------------------------|
| | | Ccf | RNA Rate | Amount | Ccf | RNA Rate | Amount | |
| 1 | Jul | 262,958 | 0.066347 | \$ 17,447 | 421,550 | 0.0663 | \$ 27,949 | \$ 10,502 |
| 2 | Augst | 224,875 | 0.066347 | \$ 14,920 | 411,900 | 0.0663 | \$ 27,309 | \$ 12,389 |
| 3 | Sep | 233,618 | 0.066347 | \$ 15,500 | 424,410 | 0.0663 | \$ 28,138 | \$ 12,638 |
| 4 | 3rd Quarter 2012 | 721,451 | 0.066347 | \$ 47,866 | 1,257,860 | 0.0663 | \$ 83,396 | \$ 35,530 |
| 5 | | | | | | | | |
| 6 | Oct | 377,416 | 0.121459 | \$ 45,840 | 648,740 | 0.1215 | \$ 78,822 | \$ 32,981 |
| 7 | Nov | 952,474 | 0.121459 | \$ 115,686 | 2,201,120 | 0.1215 | \$ 267,436 | \$ 151,750 |
| 8 | Dec | 2,190,609 | 0.121459 | \$ 266,069 | 3,339,210 | 0.1215 | \$ 405,714 | \$ 139,645 |
| 9 | 4th Quarter 2012 | 3,520,498 | 0.121459 | \$ 427,595 | 6,189,070 | 0.1215 | \$ 751,972 | \$ 324,377 |
| 10 | | | | | | | | |
| 11 | Jan | 3,191,381 | -0.00817 | \$ (26,061) | 4,647,470 | -0.0082 | \$ (38,109) | \$ (12,048) |
| 12 | Feb | 3,746,674 | -0.00817 | \$ (30,595) | 5,412,640 | -0.0082 | \$ (44,384) | \$ (13,788) |
| 13 | Mar | 3,182,017 | -0.00817 | \$ (25,984) | 4,630,820 | -0.0082 | \$ (37,973) | \$ (11,988) |
| 14 | 1st Quarter 2013 | 10,120,072 | -0.00817 | \$ (82,641) | 14,690,930 | -0.0082 | \$ (120,466) | \$ (37,825) |
| 15 | | | | | | | | |
| 16 | Apr | 1,671,434 | 0.036935 | \$ 61,734 | 2,976,540 | 0.0369 | \$ 109,834 | \$ 48,100 |
| 17 | May | 754,956 | 0.036935 | \$ 27,884 | 1,143,660 | 0.0369 | \$ 42,201 | \$ 14,317 |
| 18 | Jun | 328,046 | 0.036935 | \$ 12,116 | 602,780 | 0.0369 | \$ 22,243 | \$ 10,126 |
| 19 | 2nd Quarter 2013 | 2,754,436 | 0.036935 | \$ 101,734 | 4,722,980 | 0.0369 | \$ 174,278 | \$ 72,544 |
| 20 | | | | | | | | |
| 21 | Annual (Over)/Under | | | | | | | \$ 394,625 |
| 22 | Projected 12 Months of Firm Sales Volume (Ccf) - Starting January | | | | | | | 26,829,293 |
| 23 | Annual Revenue Normalization Adjustment | | | | | | | \$ 0.0147 |
| 24 | | | | | | | | |
| 25 | | RS1 | RS1-E | RS2 | RS2-E | GS | GS-E | Total |
| 26 | Weather Normalized Use Per Customer | 171.19 | 154.07 | 660.98 | 594.88 | 1,031.44 | 928.30 | |
| 27 | Current Customer Count (as of October 2013) | 4,776 | 12 | 35,146 | 90 | 2,639 | 4 | |
| 28 | 12 Months of Firm Sales Volume (Ccf) | 817,582 | 1,849 | 23,230,631 | 53,539 | 2,721,979 | 3,713 | 26,829,293 |

RS1, RS2, and GS - Combined

| | [A] | [B] | [C] | [D] | [E] | [F] | [G] | [H] | [I] |
|------------------|----------------|---------------|---------------|------------------------|-------------|----------------------------|------------------------------|---------------------------------|-----------------|
| | Customer Count | Target Margin | Actual Margin | Shortfall (Surplus) | % of Margin | Actual Throughput (Ccf) | Expected Throughput (Ccf) | RNA per Ccf (Next 12 Months) | Margin with RNA |
| 1st Quarter 2009 | 38,958 | \$ 5,943,488 | \$ 5,159,335 | \$ 784,153 | 15% | 14,235,200 | 13,449,350 | | \$ 5,159,335 |
| 2nd Quarter 2009 | 38,563 | \$ 2,811,283 | \$ 3,122,528 | (311,244) | -10% | 3,955,910 | 3,885,036 | 0.033 | \$ 3,252,238 |
| 3rd Quarter 2009 | 38,210 | \$ 1,874,898 | \$ 2,235,517 | (360,618) | -16% | 1,291,400 | 1,020,967 | 0.020 | \$ 2,261,216 |
| 4th Quarter 2009 | 38,902 | \$ 3,332,768 | \$ 3,460,918 | (128,150) | -4% | 5,272,200 | 5,088,734 | 0.038 | \$ 3,660,163 |
| 1st Quarter 2010 | 39,828 | \$ 6,215,517 | \$ 5,341,295 | 874,222 | 16% | 15,272,940 | 13,920,297 | (0.005) | \$ 5,046,741 |
| 2nd Quarter 2010 | 39,419 | \$ 2,924,785 | \$ 3,020,858 | (96,074) | -3% | 3,246,060 | 4,117,893 | 0.030 | \$ 3,070,496 |
| 3rd Quarter 2010 | 39,265 | \$ 1,946,721 | \$ 2,273,102 | (326,381) | -14% | 1,251,490 | 1,079,547 | 0.021 | \$ 2,280,991 |
| 4th Quarter 2010 | 40,073 | \$ 3,439,795 | \$ 3,638,104 | (198,309) | -5% | 6,138,380 | 5,436,605 | 0.032 | \$ 3,747,362 |
| 1st Quarter 2011 | 40,977 | \$ 6,411,790 | \$ 5,443,084 | 968,707 | 18% | 15,354,940 | 14,385,036 | (0.008) | \$ 5,535,726 |
| 2nd Quarter 2011 | 40,516 | \$ 3,011,560 | \$ 3,241,176 | (229,616) | -7% | 4,203,190 | 4,254,070 | 0.030 | \$ 3,426,005 |
| 3rd Quarter 2011 | 40,050 | \$ 1,987,633 | \$ 2,293,023 | (305,390) | -13% | 1,242,270 | 1,113,937 | 0.013 | \$ 2,326,828 |
| 4th Quarter 2011 | 40,851 | \$ 3,520,780 | \$ 3,475,958 | 44,822 | 1% | 4,782,480 | 5,578,797 | 0.023 | \$ 3,655,984 |
| 1st Quarter 2012 | 41,828 | \$ 6,578,764 | \$ 4,912,593 | 1,666,172 | 34% | 11,402,170 | 14,761,353 | 0.002 | \$ 4,927,005 |
| 2nd Quarter 2012 | 41,345 | \$ 3,085,560 | \$ 3,095,185 | (9,625) | 0% | 3,140,630 | 4,377,202 | 0.065 | \$ 3,297,844 |
| 3rd Quarter 2012 | 41,076 | \$ 2,041,852 | \$ 2,348,564 | (306,712) | -13% | 1,257,710 | 1,145,819 | 0.066 | \$ 2,431,432 |
| 4th Quarter 2012 | 41,988 | \$ 3,600,078 | \$ 3,816,847 | (216,770) | -6% | 6,184,920 | 5,770,349 | 0.121 | \$ 4,565,222 |
| 1st Quarter 2013 | 42,940 | \$ 6,718,412 | \$ 5,500,752 | 1,217,660 | 22% | 14,680,730 | 15,040,415 | (0.008) | \$ 5,423,467 |
| 2nd Quarter 2013 | 42,614 | \$ 3,168,248 | \$ 3,520,544 | (352,297) | -10% | 4,715,540 | 4,456,461 | 0.037 | \$ 3,708,507 |
| 3rd Quarter 2013 | 42,170 | \$ 2,092,709 | \$ 2,404,646 | (311,938) | -13% | 1,294,630 | 1,172,294 | 0.016 | \$ 2,428,873 |
| 4th Quarter 2013 | 43,195 | \$ 3,706,606 | \$ 3,877,683 | (171,077) | -4% | 6,350,590 | 5,876,183 | 0.033 | \$ 4,106,455 |
| 1st Quarter 2014 | 44,285 | \$ 6,931,009 | \$ 5,994,923 | 936,087 | 16% | 17,388,470 | 15,493,717 | (0.006) | \$ 5,897,041 |
| 2nd Quarter 2014 | 43,906 | \$ 3,264,018 | \$ 3,650,748 | (386,730) | -11% | 4,963,130 | 4,598,178 | 0.027 | \$ 3,788,793 |
| 3rd Quarter 2014 | 43,474 | \$ 2,155,772 | \$ 2,465,949 | (310,178) | -13% | 1,306,730 | 1,208,224 | 0.007 | \$ 2,476,131 |
| 4th Quarter 2014 | 44,607 | \$ 3,847,243 | \$ 3,964,632 | (117,389) | -3% | 6,358,450 | 6,059,645 | 0.017 | \$ 4,077,081 |
| 1st Quarter 2015 | | | | | | | 16,133,083 | | |
| 2nd Quarter 2015 | | | | | | | 4,673,874 | | |
| 3rd Quarter 2015 | | | | | | | 1,236,992 | | |
| 4th Quarter 2015 | | | | | | | 6,266,688 | | |

| Annual Summary | Annual True-Up | Annual RNA per Ccf | Targeted Margin | Actual Margin | Margin with RNA |
|----------------|----------------|-----------------------|-----------------|---------------|-----------------|
| 2009 | (370,514) | (0.016) | 13,962,437 | 13,978,297 | 14,332,951.77 |
| 2010 | 381,227 | 0.016 | 14,526,817 | 14,273,360 | 14,145,589.90 |
| 2011 | (12,780) | (0.001) | 14,931,762 | 14,453,241 | 14,944,542.42 |
| 2012 | 84,751 | 0.003 | 15,306,254 | 14,173,189 | 15,221,502.88 |
| 2013 | 18,672 | 0.001 | 15,685,975 | 15,303,625 | 15,667,302.69 |
| 2014 | (41,005) | (0.001) | 16,198,042 | 16,076,252 | 16,239,047.00 |

BEFORE THE
PUBLIC SERVICE COMMISSION
OF DELAWARE
CASE NO. _____

CHESAPEAKE UTILITIES CORPORATION

Direct Testimony

of

Paul R. Moul, Managing Consultant
P. Moul & Associates

Concerning

Concerning Cost of Capital

Chesapeake Utilities Corporation

Direct Testimony of Paul R. Moul

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| GLOSSARY OF ACRONYMS AND DEFINED TERMS | |
|---|--|
| ACRONYM | DEFINED TERM |
| AFUDC | Allowance for Funds Used During Construction |
| β | Beta |
| b | Represents the retention rate that consists of the fraction of earnings that are not paid out as dividends |
| b x r | Represents internal growth |
| CAPM | Capital Asset Pricing Model |
| CCR | Corporate Credit Rating |
| CE | Comparable Earnings |
| DCF | Discounted Cash Flow |
| g | Growth rate |
| IGF | Internally Generated Funds |
| IRR | Internal Rate of Return |
| LDC | local distribution companies |
| Lev | Leverage modification |
| LIBOR | London Interbank Offered Rate |
| LT | Long Term |
| M&M | Modigliani & Miller |
| MPL | Minimum Pension Liability |
| NAIC | National Association of Insurance Commissioners |
| OCI | Other Comprehensive Income |
| P-E | Price earnings |
| PSC | Public Service Commission of Delaware |
| r | represents the expected rate of return on common equity |
| RDM | Revenue Decoupling Mechanism |
| Rf | Risk-free rate of return |
| Rm | Return on the market |
| RP | Risk Premium |
| s | Represents the new common shares expected to be issued by a firm |
| SBBI | Stocks, Bonds, Bills and Inflation |

DIRECT TESTIMONY OF PAUL R. MOUL

INTRODUCTION AND SUMMARY OF RECOMMENDATION

1 **Q. Please state your name, occupation and business address.**

2 A. My name is Paul Ronald Moul. My business address is 251 Hopkins Road,
3 Haddonfield, New Jersey 08033-3062. I am Managing Consultant at the firm P.
4 Moul & Associates, an independent financial and regulatory consulting firm. My
5 educational background, business experience and qualifications are provided in
6 Appendix A, which follows my direct testimony.

7 **Q. What is the purpose of your testimony?**

8 A. My testimony presents evidence, analysis, and a recommendation concerning the
9 appropriate rate of return that the Public Service Commission of Delaware ("PSC"
10 or the "Commission") should recognize in the determination of the revenues that
11 Chesapeake Utilities Corporation ("Chesapeake" or the "Company") should be
12 authorized as a result of this proceeding. My analysis and recommendation are
13 supported by the detailed financial data contained in Attachments PRM-1 through
14 PRM-15 which accompany my direct testimony.

15 **Q. Based upon your analysis, what is your conclusion concerning the appropriate**
16 **rate of return and cost of common equity for the Company?**

17 A. My conclusion is that the Company's cost of common equity is 11.00%. With this
18 return, I have presented on page 1 of Attachment PRM-1 the weighted average cost
19 of capital, which is 8.55% for Chesapeake. The resulting overall cost of capital,
20 which is the product of weighting the individual capital costs by the proportion of
21 each respective type of capital, should, if adopted by the Commission, establish a
22 compensatory level of return for the use of capital and provide the Company with

DIRECT TESTIMONY OF PAUL R. MOUL

1 the ability to attract capital on reasonable terms.

2 **Q. What background information have you considered in reaching a conclusion**
3 **concerning the Company's cost of capital?**

4 A. In 2014, the Company's three divisions and its wholly-owned Florida subsidiary
5 provide natural gas service to approximately 141,000 customers in central and
6 southern Delaware, Maryland's Eastern Shore, and in Florida. The Company's
7 Florida subsidiary provides electric delivery service to approximately 31,000
8 customers. In its Delaware division, the Company serves approximately 45,000
9 customers. Throughput to these customers was represented by approximately 34%
10 to residential sales customers and 66% to commercial and industrial sales and
11 transportation customers.

12 The Company's flowing gas is provided by transportation arrangements
13 with Eastern Shore Natural Gas Company ("Eastern Shore"), another wholly-owned
14 subsidiary. Eastern Shore also serves other utilities and industrial customers in
15 Pennsylvania, Delaware and the Eastern Shore of Maryland. In addition, the
16 Company's propane distribution and wholesale marketing segment provides
17 distribution service to approximately 53,300 customers in central and southern
18 Delaware, the Eastern Shore of Maryland, southeastern Pennsylvania, central
19 Florida, and the Eastern Shore of Virginia. It also markets propane to wholesale
20 customers including large independent oil and petrochemical companies, resellers
21 and propane distribution companies in the southeastern United States.

22 **Q. How have you determined the cost of common equity in this case?**

23 A. The cost of common equity is established using capital market and financial data

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1 relied upon by investors to assess the relative risk, and hence the cost of equity for a
2 natural gas utility, such as Chesapeake. In this regard, I relied on four (4) well-
3 recognized measures of the cost of equity: the Discounted Cash Flow (“DCF”)
4 model, the Risk Premium (“RP”) analysis, the Capital Asset Pricing Model
5 (“CAPM”), and the Comparable Earnings (“CE”) approach. The results of a variety
6 of approaches indicate that the Company’s cost of common equity is 11.00%.

7 **Q. In your opinion, what factors should the Commission consider when**
8 **determining the Company’s cost of capital in this proceeding?**

9 A. The rate of return utilized by the Commission to set rates must be sufficient to cover
10 the Company’s interest and dividend payments, provide a reasonable level of
11 earnings retention, produce an adequate level of internally generated funds to meet
12 capital requirements, be commensurate with the risk to which the Company’s
13 capital is exposed, assure confidence in the financial integrity of the Company,
14 support reasonable credit quality, and allow the Company to raise capital on
15 reasonable terms. The return that I propose fulfills these established standards of a
16 fair rate of return set forth by the landmark Bluefield and Hope cases.¹ That is to
17 say, my proposed rate of return is commensurate with returns available on
18 investments having corresponding risks.

19 **Q. What approach have you used in measuring the cost of equity in this case?**

20 A. The models that I used to measure the cost of common equity for the Company
21 were applied with market and financial data developed from my proxy group of

¹ Bluefield Water Works & Improvement Co. v. P.S.C. of West Virginia, 262 U.S. 679 (1923) and F.P.C. v. Hope Natural Gas Co., 320 U.S. 591 (1944).

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1 nine natural gas companies. The proxy group consists of natural gas companies
2 that: (i) are engaged in the natural gas distribution business, (ii) have publicly-
3 traded common stock, (iii) are contained in The Value Line Investment Survey, and
4 (iv) are not currently the target of a merger or acquisition. From the natural gas
5 utilities covered by the basic service of Value Line, I excluded three companies.
6 The eliminations were: AGL Resources due to the announced acquisition of it by
7 Southern Company, NiSource Inc. due to its electric operations and recent
8 separation of the former natural gas pipeline/storage operations, and UGI Corp. due
9 to its highly diversified businesses. I should note that subsequent to the selection of
10 the members of the Gas Group, Duke Energy Corp. struck a \$4.9 billion deal to
11 acquire Piedmont Natural Gas Co. The offer represented a premium of 40.0% to
12 the stock price of Piedmont on October 23, 2015. However, this event does not
13 have an impact on my cost of equity analysis because it post-dated the market data
14 that I used in my analysis that ended on August 31, 2015. The companies in the
15 proxy group are identified on page 2 of Attachment PRM-3. I will refer to these
16 companies as the “Gas Group” throughout my testimony.

17 **Q. How have you performed your cost of equity analysis with the market data for**
18 **the Gas Group?**

19 A. I have applied the models/methods for estimating the cost of equity using the
20 average data for the Gas Group. I have not separately measured the cost of equity
21 for the individual companies within the Gas Group, because the determination of
22 the cost of equity for an individual company has become increasingly problematic.
23 By employing group average data, rather than individual companies’ analysis, I

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1 have helped to minimize the effect of extraneous influences on the market data for
2 an individual company.

3 **Q. Please summarize your cost of equity analysis.**

4 A. My cost of equity determination was derived from the results of the
5 methods/models identified above. In general, the use of more than one method
6 provides a superior foundation to arrive at the cost of equity. At any point in time,
7 any single method can provide an incomplete measure of the cost of equity
8 depending upon extraneous factors that may influence market sentiment. The
9 specific application of these methods/models will be described later in my
10 testimony. The following table provides a summary of the indicated costs of equity
11 using each of these approaches, as shown on page 2 of Attachment PRM-1.

| <u>Gas Group</u> | <u>Excluding</u> <u>Flotation Costs</u> | <u>Including</u> <u>Flotation Costs</u> ¹ |
|---------------------|--|---|
| DCF | 9.97% | 10.12% |
| Risk Premium | 11.25% | 11.40% |
| CAPM | 11.89% | 12.04% |
| Comparable Earnings | 12.80% | 12.80% |
| Average | 11.48% | 11.59% |
| Median | 11.57% | 11.72% |
| Mid-point | 11.39% | 11.46% |

12 Focusing upon the market model approaches to estimating the cost of equity (i.e.,
13 DCF, RP and CAPM), the average equity return is 11.04% (9.97% + 11.25% +

² Flotation costs are defined as the out-of-pocket costs associated with the issuance of common stock. Those costs typically consist of the underwriters' discount and company issuance expenses.

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1 11.89% = 33.11% ÷ 3), excluding flotation costs. From the results of these models,
2 I recommend that the Commission set the Company's rate of return on common
3 equity at 11.00%. I also believe my recommended cost of equity is appropriate
4 because it makes no provision for the prospect that the rate of return may not be
5 achieved due to unforeseen events that could occur during the rate effective period.

NATURAL GAS RISK FACTORS

7 **Q. What factors currently affect the business risk of the natural gas utilities?**

8 A. Gas utilities face risks arising from competition, economic regulation, the business
9 cycle, and customer usage patterns. Today, they operate in a more complex
10 environment with time frames for decision-making considerably shortened. Their
11 business profile is influenced by market-oriented pricing for the commodity
12 distributed to customers and open access for the transportation of natural gas for
13 customers.

14 Natural gas utilities have focused increased attention on safety and
15 reliability issues and on conservation and energy efficiency. In order to address
16 these issues and to comply with new and pending pipeline safety regulations,
17 natural gas companies are now allocating more of their resources to addressing
18 aging infrastructure issues, which have led to increased external capital
19 requirements.

20 **Q. Does the Company face competition in its natural gas business?**

21 A. Yes. Natural gas faces significant competition from alternative energy sources.
22 The Company faces direct competition from electricity, fuel oil, and propane in its
23 service territory. Propane and fuel oil have an advantage because they are not

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1 inhibited by regulatory constraints when conducting their marketing activities. This
2 situation is unlike that of Chesapeake where specific thresholds must be satisfied
3 for system expansions, and where promotional activities are constrained.

4 **Q. How does the Company's throughput to industrial and transportation**
5 **customers affect its risk profile?**

6 A. The Company's risk profile is influenced by natural gas sold/delivered to industrial
7 and transportation customers. The throughput to the Company's top ten customers
8 represented 565,544 mcfs, or approximately 7% of throughput. Success in this
9 aspect of the Company's market is subject to the business cycle, the price of
10 alternative energy sources, and pressures from the competitors. Moreover, external
11 factors can also influence the Company's throughput to these customers which face
12 competitive pressure on its operations from facilities located outside the Company's
13 service territory.

14 **Q. Please indicate how its construction program affects the Company's risk**
15 **profile.**

16 A. The Company is faced with the requirement to undertake investments to maintain
17 and upgrade existing facilities in its service territory. To maintain safe and reliable
18 service to existing customers, the Company must invest to upgrade its
19 infrastructure. The rehabilitation of the Company's infrastructure represents a non-
20 revenue producing use of capital. The Company's Delaware Division had 10.801
21 miles of its distribution mains constructed of unprotected steel pipe as of year-end
22 2014. The Company projects its construction expenditures in the Delaware
23 Division will be:

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| <u>Year</u> | <u>Capital Expenditures</u> |
|-------------|---------------------------------|
| 2015 | 14,632,739 |
| 2016 | 18,044,467 |
| 2017 | <u>16,015,181</u> |
| Total | <u><u>\$48,692,387</u></u> |

1 Over the next three years, these capital expenditures will represent approximately
2 56% ($\$48,692,387 \div \$87,595,060$) of the net utility plant in service at December 31,
3 2014.

4 **Q. Does your cost of equity analysis and recommendation take into account the**
5 **Revenue Normalization Mechanism (“RNM”) that the Company is proposing**
6 **in this case?**

7 A. Yes. The Company proposes to include in its tariff the RNM that is intended to
8 “decouple” the recovery of the revenues for a given customer class from usage of
9 the customers in that class. My cost of equity analysis that provides an 11.00% rate
10 of return on common equity takes into account the Company’s proposal.

11 **Q. Do the LDCs included in your Gas Group already have tariff mechanisms**
12 **similar to the RNM?**

13 A. The LDCs included in my Gas Group already have tariff mechanisms similar to
14 decoupling, and therefore my analysis already reflects the impact of decoupling on
15 investor expectations through the use of market-determined models. All but one of
16 the companies in my Gas Group has some form of revenue decoupling mechanism
17 (“RDM”) that deals with abnormal temperature situations, as does the Company’s

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1 proposed RNM. The sole exception is Laclede, which does not have an RDM in
2 Missouri but does have a weather mitigated rate design that recovers its fixed costs
3 more evenly during the heating season. This rate is designed to accomplish more
4 assured recovery of fixed costs in spite of variations in sales, which is the intent of
5 decoupling of revenues from variations in sales due to weather. As a group, the
6 market prices of these companies' common equity reflect the expectations of
7 investors that the companies' revenues are stabilized to some extent by decoupling
8 or other mechanisms. Therefore my analysis reflects the impacts of RNM on
9 investor expectations through the use of market-determined models. As such, the
10 market prices of these companies' common stocks reflect the expectations of
11 investors related to a regulatory mechanism that adjusts revenues for conservation,
12 abnormal weather, and other items. The trend in the industry is to stabilize the
13 recovery of fixed costs, which are unaffected by usage. Indeed, there has been a
14 proliferation of tracking mechanisms in the LDC business. Since my Gas Group
15 that I use to measure the cost of equity has the risk attributes related to the RDM
16 "baked in" to their stock prices, absent the benefit of the RDM would increase the
17 cost of equity as determined by the models that are applied with the Gas Group
18 data.

19 **Q. How do investors assess the risk to an LDC for variations in customer usage**
20 **under conditions of normal weather, which the RNM is designed to**
21 **accommodate, among other factors?**

22 A. Investors in a gas utility can only formulate reasonable expectations based upon
23 normal weather, although achieved results may vary significantly from those

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1 expectations from year to year due to variations in weather. That is to say, a
2 rational investor in a gas utility can only anticipate, and base his or her analyses on
3 normal temperature conditions. The financial theory upon which the cost of equity
4 is based recognizes that investors value their investments on a long-term basis
5 covering a number of years, not just one year. For example, the DCF formula
6 explicitly assumes a growth rate “approaching infinity.” Additionally, as I will
7 discuss later, analysts’ forecasts of utilities’ earnings and dividend growth, which
8 investors take into account in making investment decisions, typically are provided
9 on a five-year basis. Weather, by definition, is normal over the long-term or multi-
10 year period, although it may vary significantly from year to year. Moreover, one of
11 the standard models of the cost of equity (i.e., CAPM) suggests that there is no
12 measurable effect on the cost of equity because weather represents a company-
13 specific risk, which does not receive compensation in the CAPM. Therefore, the
14 theories and models underlying my cost of capital analysis obviate the need for any
15 adjustments based upon short-term phenomena such as weather variations which
16 have no long-term effect. Accordingly, over the long term, the investor required
17 cost of capital or discount rate assumed for an investment in a gas utility would be
18 the same either with or without a RNM.

19 **Q. How should the Commission respond to the issues facing the natural gas**
20 **utilities and in particular Chesapeake?**

21 A. As previously noted, a fair rate of return for the Company represents a key to a
22 financial profile that will provide the Company with the ability to raise the capital
23 necessary to meet its capital needs on an ongoing basis. In the situation where

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1 additional capital is required, as shown by the construction expenditures indicated
2 above, the regulatory process must establish a return on equity that provides a
3 reasonable opportunity for the Company to actually achieve its cost of capital. The
4 Commission should recognize and take into account the competitive environment in
5 the natural gas business in determining the cost of capital for the Company and
6 provide a reasonable opportunity for the Company to actually achieve its cost of
7 capital.

FUNDAMENTAL RISK ANALYSIS

8
9 **Q. Is it necessary to conduct a fundamental risk analysis to provide a framework**
10 **for a determination of a utility's cost of equity?**

11 A. Yes. It is necessary to establish a company's relative risk position within its
12 industry through a fundamental analysis of various quantitative and qualitative
13 factors that bear upon investors' assessment of overall risk. The qualitative factors
14 that bear upon the Company's risk have already been discussed. The quantitative
15 risk analysis follows. For this purpose, I compared Chesapeake to the S&P Public
16 Utilities, an industry-wide proxy consisting of various regulated businesses, and to
17 the Gas Group.

18 **Q. What are the components of the S&P Public Utilities?**

19 A. The S&P Public Utilities is a widely recognized index that is comprised of electric
20 power and natural gas companies. These companies are identified on page 3 of
21 Attachment PRM-4.

22 **Q. What companies comprise the gas group?**

23 A. My Gas Group obtained from the Value Line publication consists of the following

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1 companies: Atmos Energy Corp., Chesapeake Utilities Corp., Laclede Group, New
2 Jersey Resources Corp., Northwest Natural Gas, Piedmont Natural Gas Co., South
3 Jersey Industries, Inc., Southwest Gas Corp., and WGL Holdings, Inc. As noted
4 previously, Piedmont Natural Gas was retained in the Gas Group because the
5 market evidence that I used predates the announcement that Duke Energy would
6 acquire the company.

7 **Q. Is knowledge of a utility's bond rating an important factor in assessing its risk**
8 **and cost of capital?**

9 A. Yes. Knowledge of a company's credit quality rating is important because the cost
10 of each type of capital is directly related to the associated risk of the firm. So while
11 a company's credit quality risk is shown directly by the rating and yield on its
12 bonds, these relative risk assessments also bear upon the cost of equity. This is
13 because a firm's cost of equity is represented by its borrowing cost plus
14 compensation to recognize the higher risk of an equity investment compared to
15 debt.

16 **Q. How do the bond ratings compare for Chesapeake, the Gas Group, and the**
17 **S&P Public Utilities?**

18 A. There is no public rating on the debt of Chesapeake. The Company's long-term
19 debt carries a designation of "1" from the National Association of Insurance
20 Commissioners ("NAIC"), which is equivalent to all of the A ratings (i.e., AAA,
21 AA, A and Aaa, Aa, A) by Standard & Poor's Corporation ("S&P") and Moody's
22 Investors Service ("Moody's") -- both national recognized credit rating agencies. It
23 is important, therefore, that the Company experience an opportunity to achieve an

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adequate rate of return so that its credit quality conforms to the standards for the A credit quality. Presently, the average corporate credit rating (“CCR”) for the Gas Group is A- from S&P and the Long Term (“LT”) issuer rating is A2 from Moody’s. The CCR designation by S&P and LT issuer rating by Moody’s focuses upon the credit quality of the issuer of the debt, rather than upon the debt obligation itself. For the S&P Public Utilities, the average composite rating is BBB+ by S&P and A3 by Moody’s. Many of the financial indicators that I will subsequently discuss are considered during the rating process.

Q. How do the financial data compare for Chesapeake, the Gas Group, and the S&P Public Utilities?

A. The broad categories of financial data that I will discuss are shown on Attachments PRM-2, PRM-3, and PRM-4. The data cover the five-year period 2010-2014. The important categories of relative risk may be summarized as follows:

Size. In terms of capitalization, Chesapeake is smaller than the average size of the Gas Group, which itself is a group of relatively small size companies. The average size of the S&P Public Utilities is much larger than the Gas Group, and the Gas Group is larger than Chesapeake. All other things being equal, a smaller company is riskier than a larger company because a given change in revenue and expense has a proportionately greater impact on a small firm. As I will demonstrate later, the size of a firm can impact its cost of equity. This is the case for Chesapeake compared to the Gas Group, and the Gas Group compared to the S&P Public Utilities.

Market Ratios. Market-based financial ratios provide a partial indication of

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1 the investor-required cost of equity. If all other factors are equal, investors will
2 require a higher rate of return on equity for companies that exhibit greater risk, in
3 order to compensate for that risk. That is to say, a firm that investors perceive to
4 have higher risks will experience a lower price per share in relation to expected
5 earnings.

6 Chesapeake's five-year average price-earnings multiple was somewhat
7 lower than that of the average of the Gas Group. The five-year average price-
8 earnings multiple for the Gas Group was fairly similar to that of the S&P Public
9 Utilities. The five-year average dividend yield for Chesapeake was lower than the
10 average of the Gas Group. The five-year average dividend yield for the S&P Public
11 Utilities was higher. The five-year average market-to-book ratio was somewhat
12 similar for Chesapeake and the Gas Group, but higher than the S&P Public Utilities.

13 Common Equity Ratio. The level of financial risk is measured by the
14 proportion of long-term debt and other senior capital that is contained in a
15 company's capitalization. Financial risk is also analyzed by comparing common
16 equity ratios (the complement of the ratio of debt and other senior capital). That is
17 to say, a firm with a high common equity ratio has lower financial risk, while a firm
18 with a low common equity ratio has higher financial risk. The five-year average
19 common equity ratios, based on permanent capital, were 68.2% for Chesapeake,
20 57.0% for the Gas Group, and 45.3% for the S&P Public Utilities.

21 Return on Book Equity. Greater variability (i.e., uncertainty) of a firm's
22 earned returns signifies relatively greater levels of risk, as shown by the coefficient
23 of variation (standard deviation ÷ mean) of the rate of return on book common

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1 equity. The higher the coefficients of variation, the greater degree of variability.
2 For the five-year period, the coefficients of variation were 0.034 ($0.4\% \div 11.8\%$)
3 for Chesapeake, 0.066 ($0.7\% \div 10.6\%$) for the Gas Group, and 0.102 ($1.0\% \div 9.8\%$)
4 for the S&P Public Utilities.

5 Operating Ratios. I have also compared operating ratios (the percentage of
6 revenues consumed by operating expense, depreciation, and taxes other than
7 income taxes). The complement of the operating ratio is the operating margin
8 which provides a measure of profitability. The higher the operating ratio, the lower
9 the operating margin. The five-year average operating ratios were 86.3% for
10 Chesapeake, 87.8% for the Gas Group, and 81.3% for the S&P Public Utilities.

11 Coverage. The level of fixed charge coverage (i.e., the multiple by which
12 available earnings cover fixed charges, such as interest expense) provides an
13 indication of the earnings protection for creditors. Higher levels of coverage, and
14 hence earnings protection for fixed charges, are usually associated with superior
15 grades of creditworthiness. The five-year average interest coverage (excluding
16 Allowance for Funds Used During Construction ("AFUDC")) was 6.60 times for
17 Chesapeake, 4.86 times for the Gas Group, and 3.19 times for the S&P Public
18 Utilities.

19 Quality of Earnings. Measures of earnings quality usually are revealed by
20 the percentage of AFUDC related to income available for common equity, the
21 effective income tax rate, and other cost deferrals. These measures of earnings
22 quality usually influence a firm's internally generated funds because poor quality of
23 earnings would not generate high levels of cash flow. Quality of earnings has not

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1 been a significant concern for Chesapeake, the Gas Group, and the S&P Public
2 Utilities.

3 Internally Generated Funds. Internally generated funds (“IGF”) provide an
4 important source of new investment capital for a utility and represent a key measure
5 of credit strength. Historically, the five-year average percentage of IGF to capital
6 expenditures was 96.8% for Chesapeake, 86.8% for the Gas Group, and 87.5% for
7 the S&P Public Utilities.

8 Betas. The financial data that I have been discussing relate primarily to
9 company-specific risks. Market risk for firms with publicly-traded stock is
10 measured by beta coefficients. Beta coefficients attempt to identify systematic risk,
11 i.e., the risk associated with changes in the overall market for common equities.³
12 Value Line publishes such a statistical measure of a stock’s relative historical
13 volatility to the rest of the market. A comparison of market risk is shown by the
14 Value Line beta of .65 for Chesapeake, .78 as the average for the Gas Group (see
15 page 2 of Attachment PRM-3), and .77 as the average for the S&P Public Utilities
16 (see page 3 of Attachment PRM-4).

17 **Q. Please summarize your risk evaluation of the Company and the Gas Group.**

18 A. The risk of Chesapeake parallels that of the Gas Group in certain respects with
19 regard to historical financial performance. However, the Company’s small size
20 adds to its risk. As such, the cost of equity derived from the Gas Group would tend

³ The procedure used to calculate the beta coefficient published by Value Line is described on page 3 of Schedule 15. A common stock that has a beta less than 1.0 is considered to have less systematic risk than the market as a whole and would be expected to rise and fall more slowly than the rest of the market. A stock with a beta above 1.0 would have more systematic risk.

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1 to provide a conservative measure for the Company's cost of equity.

2 **CAPITAL STRUCTURE RATIOS**

3 **Q. Please explain the selection of capital structure ratios for Chesapeake.**

4 A. It is appropriate that Chesapeake's capital structure ratios be employed for rate of
5 return purposes. Furthermore, consistency requires that the embedded cost rate of
6 the Company's senior securities also be employed. This procedure is consistent
7 with the ratesetting procedures used by the Commission in prior rate cases for
8 Chesapeake.

9 **Q. Does Attachment PRM-5 provide the Company's capitalization and capital**
10 **structure ratios?**

11 A. Yes. Attachment PRM-5 presents the Company's capitalization and related capital
12 structure ratios based upon investor-provided capital. The June 30, 2015
13 capitalization corresponds with the end of the historical period and March 31, 2016
14 is pro forma for the test year in this case. Attachment PRM-5 contains a ratesetting
15 adjustment to remove the accumulated Other Comprehensive Income ("OCI") from
16 the Company's common equity account. I have also excluded the debt and capital
17 lease obligations of subsidiary companies that are not associated with utility
18 operations of Chesapeake. It also shows the pro forma adjustments used to develop
19 the March 31, 2016 capitalization. Those adjustments relate to principal
20 repayments on debt, the issuance of new long-term debt and common stock, as well
21 as a forecast of year-end retained earnings.

22 **Q. Please explain the justification for removing the accumulated OCI?**

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1 A. The accumulated OCI must be eliminated from the capital structure for ratesetting
2 purposes. OCI arises from a variety of sources, including: minimum pension
3 liability (“MPL”), foreign currency hedges, unrealized gains and losses on
4 securities available for sale, interest rate swaps, and other cash flow hedges. The
5 accumulated OCI for the Company has its roots in the MPL and commodity
6 contracts cash flow hedges. None of the accounting entries that affect accumulated
7 OCI have anything to do with financing the rate base of the Company (i.e., they do
8 not generate or consume any cash). A MPL entry must be recorded on the balance
9 sheet when the present value of the pension benefit earned by employees exceeds
10 the market value of trust fund assets. As such, MPL arises from changes in stock
11 market values and interest rates, which impacts the value of the trust fund assets, as
12 well as the present value of the pension benefit obligation. SFAS 87 requires that
13 the MPL be recognized as a pension expense over future periods, as long as the
14 MPL continues to exist. If the stock market improves and when interest rates rise
15 from recent low levels, the MPL will reverse and not impact future pension
16 expense. Hence, the accumulated OCI must be excluded from the common equity.

17 **Q. What financing arrangements are currently in place for Chesapeake?**

18 A. On October 8, 2015, the Company established a Private Shelf Agreement with
19 Prudential Investment Management for the issuance of up to \$150 million of senior
20 promissory notes. This agreement extends for three-years and has been approved
21 by the Commission. On this date, the Company also entered into a revolving Credit
22 Agreement with a group of five banks that provide a five-year credit facility of
23 \$150 million, having both a long-term and short-term pricing option. The Company

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1 also has the ability to issue additional common equity pursuant to an SEC Form S-4
2 registration statement filed on December 12, 2014 for the sale of up to 790,769
3 common shares.

4 **Q. What pro forma financings have you reflected on Attachment PRM-5?**

5 A. I have reflected a \$130 million issue of senior notes and \$33.5 million of additional
6 common equity in the pro forma capital structure. It is expected that the debt issue
7 will occur in two tranches in 2016. The first tranche of \$70 million will occur in the
8 first quarter of 2016 and the second tranche of \$60 million will occur later in 2016.
9 These debt issues will be used to repay a portion of short-term debt that has been
10 incurred to finance utility plant additions. As noted above, Chesapeake Utilities
11 already has in place a commitment with Prudential Investment Management that
12 will fund most of the long-term debt needs associated with those projects. As to the
13 common equity financing, Chesapeake Utilities plans to issue \$70 million of new
14 common equity to investors. The issuance costs associated with that financing is
15 expected to be approximately \$3 million. This will provide Chesapeake Utilities
16 with approximately \$67 million of net proceeds. One-half of that amount, or \$33.5
17 million, has been reflected in the pro forma capital structure, which provides the
18 common equity component necessary to permanently finance its large capital
19 expenditure program. Amounts to be drawn under the new revolving credit
20 agreement are not shown here because they will not be borrowed until 2017.

21 **Q. What capital structure ratios do you recommend be adopted for rate of return**
22 **purposes in this proceeding?**

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COST OF SENIOR CAPITAL

A. Consistency with the capital structure ratios for the Company requires that the embedded cost rate of Chesapeake's senior securities must also be employed. This procedure is consistent with the ratesetting procedures used by the Commission for the Company. The determination of the cost of debt is essentially an arithmetic exercise. This is due to the fact that the Company has contracted for the use of this capital for a specific period of time at a specified cost rate. As shown on page 1 of Attachment PRM-6, the actual embedded cost of long-term debt was 5.12% on June 30, 2015. The embedded cost of long-term debt is expected to be 4.82% at March 31, 2016, as shown on page 3 of Attachment PRM-6. For the new issue of long-term debt, the Company expects that the coupon rate will be 4.50%, the maturity will occur in 15-years, and the issuance costs will be \$220,000. The details leading to the development of the individual effective cost rates for each series of long-term debt are shown on page 3 of Attachment PRM-6. The effective cost rate is the internal rate of return ("IRR") that equates the present value of all future interest and principal payments with the net proceeds of the bond.

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COST OF EQUITY – GENERAL APPROACH

Q. Please describe the process you employed to determine the cost of equity for the Company.

A. Although my fundamental financial analysis provides the required framework to establish the risk relationships among Chesapeake, the Gas Group, and the S&P Public Utilities, the cost of equity must be measured by standard financial models that I identified above. Differences in risk traits, such as size, business diversification, geographical diversity, regulatory policy, financial leverage, and bond ratings must be considered when analyzing the cost of equity.

It is also important to reiterate that no one method or model of the cost of equity can be applied in an isolated manner. Rather, informed judgment must be used to take into consideration the relative risk traits of the firm. It is for this reason that I have used more than one method to measure the Company's cost of equity. As I describe below, each of the methods used to measure the cost of equity contains certain incomplete and/or overly restrictive assumptions and constraints that are not optimal. Therefore, I favor considering the results from a variety of methods. In this regard, I applied each of the methods with data taken from the Gas Group and arrived at a cost of equity of at least 11.00% for the Company.

DISCOUNTED CASH FLOW

Q. Please describe your use of the Discounted Cash Flow approach to determine the cost of equity.

A. The DCF model seeks to explain the value of an asset as the present value of future expected cash flows discounted at the appropriate risk-adjusted rate of return. In its

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1 simplest form, the DCF return on common stock consists of a current cash
2 (dividend) yield and future price appreciation (growth) of the investment. The
3 dividend discount equation is the familiar DCF valuation model and assumes future
4 dividends are systematically related to one another by a constant growth rate. The
5 DCF formula is derived from the standard valuation model: $P = D/(k-g)$, where P =
6 price, D = dividend, k = the cost of equity, and g = growth in cash flows. By
7 rearranging the terms, we obtain the familiar DCF equation: $k = D/P + g$. All of the
8 terms in the DCF equation represent investors' assessment of expected future cash
9 flows that they will receive in relation to the value that they set for a share of stock
10 (P). The DCF equation is sometimes referred to as the "Gordon" model.⁴ My DCF
11 results are provided on page 2 of Attachment PRM-1 for the Gas Group. The DCF
12 return is 9.97%, excluding flotation costs and 10.12%, including flotation costs.

13 Among other limitations of the model, there is a certain element of
14 circularity in the DCF method when applied in rate cases. This is because
15 investors' expectations for the future depend upon regulatory decisions. In turn,
16 when regulators depend upon the DCF model to set the cost of equity, they rely
17 upon investor expectations that include an assessment of how regulators will decide
18 rate cases. Due to this circularity, the DCF model may not fully reflect the true risk
19 of a utility.

20 **Q. Please explain the dividend yield component of a DCF analysis.**

⁴ Although the popular application of the DCF model is often attributed to the work of Myron J. Gordon in the mid-1950's, J. B. Williams expounded the DCF model in its present form nearly two decades earlier.

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1 A. The DCF methodology requires the use of an expected dividend yield to establish
2 the investor-required cost of equity. For the twelve months ended August 2015, the
3 monthly dividend yields are shown on Attachment PRM-7 and reflect an adjustment
4 to the month-end prices to reflect the buildup of the dividend in the price that has
5 occurred since the last ex-dividend date (i.e., the date by which a shareholder must
6 own the shares to be entitled to the dividend payment – usually about two to three
7 weeks prior to the actual payment).

8 For the twelve months ended August 2015, the average dividend yield was
9 3.26% for the Gas Group based upon a calculation using annualized dividend
10 payments and adjusted month-end stock prices. The dividend yields for the more
11 recent six- and three-month periods were 3.30% and 3.36%, respectively. I have
12 used, for the purpose of the DCF model, the six-month average dividend yield of
13 3.30% for the Gas Group. The use of this dividend yield will reflect current capital
14 costs, while avoiding spot yields. For the purpose of a DCF calculation, the average
15 dividend yield must be adjusted to reflect the prospective nature of the dividend
16 payments, i.e., the higher expected dividends for the future. Recall that the DCF is
17 an expectational model that must reflect investor anticipated cash flows for the Gas
18 Group. I have adjusted the six-month average dividend yield in three different, but
19 generally accepted, manners and used the average of the three adjusted values as
20 calculated in the lower panel of data presented on Attachment PRM-7. This
21 adjustment adds nine basis points to the six-month average historical yield, thus
22 producing the 3.39% adjusted dividend yield for the Gas Group.

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1 **Q. Please explain the underlying factors that influence investor's growth**
2 **expectations.**

3 A. As noted previously, investors are interested principally in the future growth of their
4 investment (i.e., the price per share of the stock). Future earnings per share growth
5 represent the DCF model's primary focus because under the constant price-earnings
6 multiple assumption of the model, the price per share of stock will grow at the same
7 rate as earnings per share. In conducting a growth rate analysis, a wide variety of
8 variables can be considered when reaching a consensus of prospective growth,
9 including: earnings, dividends, book value, and cash flow stated on a per share
10 basis. Historical values for these variables can be considered, as well as analysts'
11 forecasts that are widely available to investors. A fundamental growth rate analysis
12 is sometimes represented by the internal growth (" $b \times r$ "), where " r " represents the
13 expected rate of return on common equity and " b " is the retention rate that consists
14 of the fraction of earnings that are not paid out as dividends. To be complete, the
15 internal growth rate should be modified to account for sales of new common stock -
16 - this is called external growth (" $s \times v$ "), where " s " represents the new common
17 shares expected to be issued by a firm and " v " represents the value that accrues to
18 existing shareholders from selling stock at a price different from book value.
19 Fundamental growth, which combines internal and external growth, provides an
20 explanation of the factors that cause book value per share to grow over time.

21 Growth also can be expressed in multiple stages. This expression of
22 growth consists of an initial "growth" stage where a firm enjoys rapidly expanding
23 markets, high profit margins, and abnormally high growth in earnings per share.

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1 Thereafter, a firm enters a “transition” stage where fewer technological advances
2 and increased product saturation begin to reduce the growth rate and profit margins
3 come under pressure. During the “transition” phase, investment opportunities begin
4 to mature, capital requirements decline, and a firm begins to pay out a larger
5 percentage of earnings to shareholders. Finally, the mature or “steady-state” stage
6 is reached when a firm’s earnings growth, payout ratio, and return on equity
7 stabilizes at levels where they remain for the life of a firm. The three stages of
8 growth assume a step-down of high initial growth to lower sustainable growth.
9 Even if these three stages of growth can be envisioned for a firm, the third “steady-
10 state” growth stage, which is assumed to remain fixed in perpetuity, represents an
11 unrealistic expectation because the three stages of growth can be repeated. That is
12 to say, the stages can be repeated where growth for a firm ramps-up and ramps-
13 down in cycles over time.

14 **Q. Did you assume a non-constant growth rate in your analysis?**

15 A. No. I acknowledge that growth can also be expressed in multiple stages, but there
16 is no need to do so in this case. As my subsequent analysis will reveal, my growth
17 rate determination provides a constant growth rate that is sustainable given the
18 fundamentals currently affecting the industry. For example, infrastructure
19 rehabilitation adds to the growth of rate base that will provide the foundation for
20 future growth that is consistent with the constant growth rate.

21 **Q. What investor-expected growth rate is appropriate in a DCF calculation?**

22 A. Investors consider both company-specific variables and overall market sentiment
23 (i.e., level of inflation rates, interest rates, economic conditions, etc.) when

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1 balancing their capital gains expectations with their dividend yield requirements. I
2 follow an approach that is not rigidly formatted because investors are not influenced
3 by a single set of company-specific variables weighted in a formulaic manner. In
4 my opinion, all relevant growth rate indicators using a variety of techniques must be
5 evaluated when formulating a judgment of investor-expected growth.

6 **Q. What company-specific data have you considered in your growth rate**
7 **analysis?**

8 A. As presented on Attachments PRM-8 and PRM-9, I have considered both historical
9 and projected growth rates in earnings per share, dividends per share, book value
10 per share, and cash flow per share for the Gas Group. While analysts will review
11 all measures of growth as I have done, it is earnings per share growth that
12 influences directly the expectations of investors for utility stocks.⁵ Forecasts of
13 earnings growth are required within the context of the DCF because the model is a
14 forward-looking concept, and with a constant price-earnings multiple and payout
15 ratio, all other measures of growth will mirror earnings growth. So with the
16 assumptions underlying the DCF, all forward-looking projections should be similar
17 with a constant price-earnings multiple, earned return, and payout ratio.

18 As to the issue of historical data, investors cannot purchase past earnings
19 of a utility, rather they are only entitled to future earnings. In addition, assigning
20 significant weight to historical performance results in double counting of the
21 historical data. While history cannot be ignored, it is already factored into the

⁵ Gordon, Gordon & Gould, "Choice Among Methods of Estimating Share Yield," The Journal of Portfolio Management (Spring 1989).

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1 analysts' forecasts of earnings growth. In developing a forecast of future earnings
2 growth, an analyst would first apprise himself/herself of the historical performance
3 of a company. Hence, there is no need to count historical growth rates a second
4 time, because historical performance is already reflected in analysts' forecasts
5 which reflect an assessment of how the future will diverge from historical
6 performance.

7 Attachment PRM-8 shows the historical growth rates in earnings per
8 share, dividends per share, book value per share, and cash flow per share for the
9 Gas Group. The historical growth rates were taken from the Value Line publication
10 that provides these data. As shown on Attachment PRM-8, the historical growth of
11 earnings per share was in the range of 4.17% to 5.72% for the Gas Group.

12 **Q. What is presented in Attachment PRM-9?**

13 A. Attachment PRM-9 provides projected earnings per share growth rates taken from
14 analysts' forecasts compiled by IBES/First Call, Zacks, Morningstar, SNL, and
15 Value Line. IBES/First Call, Zacks, Morningstar, and SNL represent reliable
16 authorities of projected growth upon which investors rely. The IBES/First Call,
17 Zacks, and SNL growth rates are consensus forecasts taken from a survey of
18 analysts that make projections of growth for these companies. The IBES/First Call,
19 Zacks, Morningstar, and SNL estimates are obtained from the Internet and are
20 widely available to investors. First Call probably is quoted most frequently in the
21 financial press when reporting on earnings forecasts. The Value Line forecasts also
22 are widely available to investors and can be obtained by subscription or free-of-
23 charge at most public and collegiate libraries. The IBES/First Call, Zacks, and

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1 Morningstar, and SNL forecasts are limited to earnings per share growth, while
2 Value Line makes projections of other financial variables. The Value Line
3 forecasts of dividends per share, book value per share, and cash flow per share have
4 also been included on Attachment PRM-9 for the Gas Group.

5 **Q. Is a five-year investment horizon associated with the analysts' forecasts**
6 **consistent with the traditional DCF model?**

7 A. Yes. In fact, it illustrates that the infinite form of the DCF model contains an
8 unrealistic assumption. Rather than viewing the DCF in the context of an endless
9 stream of growing dividends (e.g., a century of cash flows), the growth in the share
10 value (i.e., capital appreciation, or capital gains yield) is most relevant to investors'
11 total return expectations. Hence, the sale price of a stock can be viewed as a
12 liquidating dividend that can be discounted along with the annual dividend receipts
13 during the investment-holding period to arrive at the investor expected return. The
14 growth in the price per share will equal the growth in earnings per share absent any
15 change in price-earnings ("P-E") multiple -- a necessary assumption of the DCF.
16 As such, my company-specific growth analysis, which focuses principally upon
17 five-year forecasts of earnings per share growth, conforms with the type of analysis
18 that influences the actual total return expectation of investors. Moreover, academic
19 research focuses on five-year growth rates as they influence stock prices. Indeed, if
20 investors really required forecasts which extended beyond five years in order to
21 properly value common stocks, then I am sure that some investment advisory
22 service would begin publishing that information for individual stocks in order to
23 meet the demands of investors. The absence of such a publication is proof that

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1 investors do not require infinite forecasts in order to purchase and sell stocks in the
2 marketplace.

3 **Q. What does Attachment PRM-9 show as the projected growth rates?**

4 A. As to the five-year forecast growth rates, Attachment PRM-9 indicates that the
5 projected earnings per share growth rates for the Gas Group are 5.10% by
6 IBES/First Call, 5.41% by Zacks, 5.20% by Morningstar, 5.49% by SNL, and
7 6.61% by Value Line. The Value Line projections indicate that earnings per share
8 for the Gas Group will grow prospectively at a more rapid rate (i.e., 6.61%) than the
9 dividends per share (i.e., 4.67%), which translates into a declining dividend payout
10 ratio for the future. As noted earlier, with the constant price-earnings multiple
11 assumption of the DCF model, growth for these companies will occur at the higher
12 earnings per share growth rate, thus producing the capital gains yield expected by
13 investors.

14 **Q. What conclusion have you drawn from these data regarding the applicable**
15 **growth rate to be used in the DCF model?**

16 A. A variety of factors should be examined to reach a conclusion on the DCF growth
17 rate. However, certain growth rate variables should be emphasized when reaching a
18 conclusion on an appropriate growth rate. From the various alternative measures of
19 growth identified above, earnings per share should receive greatest emphasis.
20 Earnings per share growth are the primary determinant of investors' expectations
21 regarding their total returns in the stock market. This is because the capital gains
22 yield (i.e., price appreciation) will track earnings growth with a constant price
23 earnings multiple (a key assumption of the DCF model). Moreover, earnings per

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1 share (derived from net income) are the source of dividend payments and are the
2 primary driver of retention growth and its surrogate, i.e., book value per share
3 growth. As such, under these circumstances, greater emphasis must be placed upon
4 projected earnings per share growth. In this regard, it is worthwhile to note that
5 Professor Myron Gordon, the foremost proponent of the DCF model in rate cases,
6 concluded that the best measure of growth in the DCF model is a forecast of
7 earnings per share growth.⁶ Hence, to follow Professor Gordon's findings,
8 projections of earnings per share growth, such as those published by IBES/First
9 Call, Zacks, Morningstar, and Value Line, represent a reasonable assessment of
10 investor expectations.

11 The forecasts of earnings per share growth, as shown on Attachment
12 PRM-9, provide a range of average growth rates of 5.10% to 6.61%. Although the
13 DCF growth rates cannot be established solely with a mathematical formulation, it
14 is my opinion that an investor-expected growth rate of 5.75% is a reasonable
15 estimate of investor expected growth within the array of earnings per share growth
16 rates shown by the analysts' forecasts. This improving economic growth argues for
17 a higher DCF growth rate.

18 **Q. Are the dividend yield and growth components of the DCF adequate to explain**
19 **the rate of return on common equity when it is used in the calculation of the**
20 **weighted average cost of capital?**

⁶ Gordon, Gordon & Gould, "Choice Among Methods of Estimating Share Yield," The Journal of Portfolio Management (Spring 1989).

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1 A. Only if the capital structure ratios are measured with the market value of debt and
2 equity. In the case of the Gas Group, those average capital structure ratios are
3 33.29% long-term debt, 0.11% preferred stock, and 66.60% common equity, as
4 shown on Attachment PRM-10. If book values are used to compute the capital
5 structure ratios, then an adjustment is required.

6 **Q. Please explain why.**

7 A. If regulators use the results of the DCF (which are based on the market price of the
8 stock of the companies analyzed) to compute the weighted average cost of capital
9 with a book value capital structure used for ratesetting purposes, those results will
10 not reflect the higher level of financial risk associated with the book value capital
11 structure. Where, as here, a stock's market price diverges from a utility's book
12 value, the potential exists for a financial risk difference, because the capitalization
13 of a utility measured at its market value contains more equity, less debt and
14 therefore less risk than the capitalization measured at its book value.

15 This shortcoming of the DCF has persuaded the Pennsylvania Public
16 Utility Commission to adjust the cost of equity upward to make the return
17 consistent with the book value capital structure. Provisions for this risk difference
18 were made by the Pennsylvania Public Utility Commission in the following cases:

| Date | Company | Docket Number | Basis Points |
|-------------------|---------------------------------|--|-----------------|
| January 10, 2002 | Pennsylvania-American Water Co. | Docket No. R-00016339 | 60 basis points |
| August 1, 2002 | Philadelphia Suburban Water Co. | Docket No. R-00016750 | 80 basis points |
| January 29, 2004 | Pennsylvania-American Water Co. | Docket No. R-00038304 (affirmed by the Commonwealth Court on November 8, 2004) | 60 basis points |
| August 5, 2004 | Aqua Pennsylvania, Inc. | Docket No. R-00038805 | 60 basis points |
| December 22, 2004 | PPL Electric Utilities Corp. | Docket No. R-00049255 | 45 basis points |
| February 8, 2007 | PPL Gas Utilities Corp. | Docket No. R-00061398 | 70 basis points |

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1 In order to make the DCF results relevant to the capitalization measured at book
2 value (as is done for ratesetting purposes) the market-derived cost rate cannot be
3 used without modification.

4 **Q. Please continue with your discussion of the calculation of the leverage**
5 **adjustment.**

6 A. The only perspective that is important to investors is the return that they can realize
7 on the market value of their investment. As I have measured the DCF, the simple
8 yield (D/P) plus growth (g) provides a return applicable strictly to the price (P) that
9 an investor is willing to pay for a share of stock. The need for the leverage
10 adjustment arises when the results of the DCF model (k) are to be applied to a
11 capital structure that is different than indicated by the market price (P). From the
12 market perspective, the financial risk of the Gas Group is accurately measured by
13 the capital structure ratios calculated from the market capitalization of a firm. If the
14 ratesetting process utilized the market capitalization ratios, then no additional
15 analysis or adjustment would be required, and the simple yield (D/P) plus growth
16 (g) components of the DCF would satisfy the financial risk associated with the
17 market value of the equity capitalization. Because the ratesetting process uses a
18 different set of ratios calculated from the book value capitalization, then further
19 analysis is required to synchronize the financial risk of the book capitalization with
20 the required return on the book value of the equity. This adjustment is developed
21 through precise mathematical calculations, using well recognized analytical
22 procedures that are widely accepted in the financial literature. To arrive at that
23 return, the rate of return on common equity is the unleveraged cost of capital (or

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1 equity return at 100% equity) plus one or more terms reflecting the increase in
2 financial risk resulting from the use of leverage in the capital structure. The
3 calculations presented in the lower panel of data shown on Attachment PRM-10,
4 under the heading "M&M," provides a return of 7.91% when applicable to a capital
5 structure with 100% common equity.

6 **Q. Are there specific factors that influence market-to-book ratios that determine**
7 **whether the leverage adjustment should be made?**

8 A. No. The leverage adjustment is not intended, nor was it designed, to address the
9 reasons that stock prices vary from book value. Hence, any observations
10 concerning market prices relative to book are not on point. The leverage
11 adjustment deals with the issue of financial risk and does not transform the DCF
12 result to a book value return through a market-to-book adjustment. Again, the
13 leverage adjustment that I propose is based on the fundamental financial precept
14 that the cost of equity is equal to the rate of return for an unleveraged firm (i.e.,
15 where the overall rate of return equates to the cost of equity with a capital structure
16 that contains 100% equity) plus the additional return required for introducing debt
17 and/or preferred stock leverage into the capital structure.

18 Further, as noted previously, the relatively high market prices of utility
19 stocks cannot be attributed solely to the notion that these companies are expected to
20 earn a return on equity that differs from their cost of equity. Stock prices above
21 book value are common for utility stocks, and indeed the stock prices of non-
22 regulated companies exceed book values by even greater margins. In this regard,
23 according to the Barron's issue of September 14, 2015, the major market indices'

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1 market-to-book ratios are well above unity. The Dow Jones Utility index traded at
2 a multiple of 1.67 times book value, which is below the market multiple of other
3 indices. For example, the S&P Industrial index was at 3.52 times book value, and
4 the Dow Jones Industrial index was at 3.01 times book value. It is difficult to
5 accept that the vast majority of all firms operating in our economy are generating
6 returns far in excess of their cost of capital. Certainly, in our free-market economy,
7 competition should contain such “excesses” if they indeed exist.

8 Finally, the leverage adjustment adds stability to the final DCF cost rate.
9 That is to say, as the market capitalization increases relative to its book value, the
10 leverage adjustment increases while the simple yield (D/P) plus growth (g) result
11 declines. The reverse is also true that when the market capitalization declines, the
12 leverage adjustment also declines as the simple yield (D/P) plus growth (g) result
13 increases.

14 **Q. Is the leverage adjustment that you propose designed to transform the market**
15 **return into one that is designed to produce a particular market-to-book ratio?**

16 A. No, it is not. The adjustment that I label as a “leverage adjustment” is merely a
17 convenient way of showing the amount that must be added to (or subtracted from)
18 the result of the simple DCF model (i.e., $D/P + g$), in the context of a return that
19 applies to the capital structure used in ratemaking, which is computed with book
20 value weights rather than market value weights, in order to arrive at the utility’s
21 total cost of equity. I specify a separate factor, which I call the leverage adjustment,
22 but there is no need to do so other than providing identification for this factor. If I
23 expressed my return solely in the context of the book value weights that we use to

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1 calculate the weighted average cost of capital, and ignore the familiar $D/P + g$
2 expression entirely, then there would be no separate element to reflect the financial
3 leverage change from market value to book value capitalization. As shown in the
4 bottom panel of data on Attachment PRM-10, the equity return applicable to the
5 book value common equity ratio is equal to 7.91%, which is the return for the Gas
6 Group applicable to its equity with no debt in its capital structure (i.e., the cost of
7 capital is equal to the cost of equity with a 100% equity ratio) plus 2.05%
8 compensation for having a 45.44% debt ratio, plus 0.01% for having a 0.16%
9 preferred stock ratio. The sum of the parts is 9.97% ($7.91\% + 2.05\% + 0.01\%$) and
10 there is no need to even address the cost of equity in terms of $D/P + g$. To express
11 this same return in the context of the familiar DCF model, I summed the 3.39%
12 dividend yield, the 5.75% growth rate, and the 0.83% for the leverage adjustment in
13 order to arrive at the same 9.97% ($3.39\% + 5.75\% + 0.83\%$) return. I know of no
14 means to mathematically solve for the 0.83% leverage adjustment by expressing it
15 in the terms of any particular relationship of market price to book value. The 0.83%
16 adjustment is merely a convenient way to compare the 9.97% return computed
17 directly with the Modigliani & Miller formulas to the 9.14% return generated by the
18 DCF model based on a market value capital structure. My point is that when we
19 use a market-determined cost of equity developed from the DCF model, it reflects a
20 level of financial risk that is different (in this case, lower) from the capital structure
21 stated at book value. This process has nothing to do with targeting any particular
22 market-to-book ratio.

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1 **Q. Please provide the DCF return based upon your preceding discussion of**
2 **dividend yield, growth, and leverage.**

3 A. As explained previously, I have utilized a six-month average dividend yield
4 ("D₁/P₀") adjusted in a forward-looking manner for my DCF calculation. This
5 dividend yield is used in conjunction with the growth rate ("g") previously
6 developed. The DCF also includes the leverage modification ("lev.") required when
7 the book value equity ratio is used in determining the weighted average cost of
8 capital in the ratesetting process rather than the market value equity ratio related to
9 the price of stock. The cost of equity must also include an adjustment to cover
10 flotation costs ("flot."), as shown on Attachment PRM-11. The resulting DCF cost
11 rate is:

$$D_1/P_0 + g + lev. = k \times flot. = K$$

$$\text{Gas Group} \quad 3.39\% + 5.75\% + 0.83\% = 9.97\% \times 1.015 = 10.12\%$$

12 As indicated by the DCF result shown above, the flotation cost adjustment adds
13 0.15% (10.12% - 9.97%) to the rate of return on common equity for the Gas Group.

14 The DCF result shown above represents the simplified (i.e., Gordon) form
15 of the model that contains a constant growth assumption. I should reiterate,
16 however, that the DCF-indicated cost rate provides an explanation of the rate of
17 return on common stock market prices without regard to the prospect of a change in
18 the price-earnings multiple. An assumption that there will be no change in the
19 price-earnings multiple is not supported by the realities of the equity market,
20 because price-earnings multiples do not remain constant. This is one of the

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1 constraints of this model that makes it important to consider other model results
2 when determining a company's cost of equity.

RISK PREMIUM ANALYSIS

4 **Q. Please describe your use of the risk premium approach to determine the cost of**
5 **equity.**

6 A. With the Risk Premium approach, the cost of equity capital is determined by
7 corporate bond yields plus a premium to account for the fact that common equity is
8 exposed to greater investment risk than debt capital. The result of my Risk
9 Premium study is shown on page 2 of Attachment PRM-1. That result is 11.25%,
10 excluding flotation costs, and 11.40%, including flotation costs. As with other
11 models used to determine the cost of equity, the Risk Premium approach has its
12 limitations, including potential imprecision in the assessment of the future cost of
13 corporate debt and the measurement of the risk-adjusted common equity premium.

14 **Q. What long-term public utility debt cost rate did you use in your risk premium**
15 **analysis?**

16 A. In my opinion, a 4.75% yield represents a reasonable estimate of the prospective
17 yield on long-term A-rated public utility bonds.

18 **Q. What historical data is shown by the Moody's data?**

19 A. I have analyzed the historical yields on the Moody's index of long-term public
20 utility debt as shown on page 1 of Attachment PRM-12. For the twelve months
21 ended August 2015, the average monthly yield on Moody's index of A-rated public
22 utility bonds was 4.02%. For the six and three-month periods ended August 2014,
23 the yields were 4.12% and 4.35%, respectively. During the twelve-months ended

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1 August 2015, the range of the yields on A-rated public utility bonds was 3.58% to
2 4.40%. Page 2 of Attachment PRM-12 shows the long-run spread in yields between
3 A-rated public utility bonds and long-term Treasury bonds. As shown on page 3 of
4 Attachment PRM-12, the yields on A-rated public utility bonds have exceeded
5 those on Treasury bonds by 1.16% on a twelve-month average basis, 1.25% on a
6 six-month average basis, and 1.33% on a the three-month average basis. From
7 these averages, 1.00% represents a reasonable spread for the yield on A-rated public
8 utility bonds over Treasury bonds.

9 **Q. What forecasts of interest rates have you considered in your analysis?**

10 A. I have determined the prospective yield on A-rated public utility debt by using the
11 Blue Chip Financial Forecasts (“Blue Chip”) along with the spread in the yields that
12 I describe below. The Blue Chip is a reliable authority and contains consensus
13 forecasts of a variety of interest rates compiled from a panel of banking, brokerage,
14 and investment advisory services. In early 1999, Blue Chip stopped publishing
15 forecasts of yields on A-rated public utility bonds because the Federal Reserve
16 deleted these yields from its Statistical Release H.15. To independently project a
17 forecast of the yields on A-rated public utility bonds, I have combined the forecast
18 yields on long-term Treasury bonds published on September 1, 2015, and a yield
19 spread of 1.00%, derived from historical data.

20 **Q. How have you used these data to project the yield on A-rated public utility**
21 **bonds for the purpose of your Risk Premium analyses?**

22 A. Shown below is my calculation of the prospective yield on A-rated public utility
23 bonds using the building blocks discussed above, i.e., the Blue Chip forecast of

DIRECT TESTIMONY OF PAUL R. MOUL

1 Treasury bond yields and the public utility bond yield spread. For comparative
 2 purposes, I also have shown the Blue Chip forecasts of Aaa-rated and Baa-rated
 3 corporate bonds. These forecasts are:

| Year | Quarter | Blue Chip Financial Forecasts | | | A-rated Public Utility | |
|------|---------|-------------------------------|-----------|----------|------------------------|-------|
| | | Corporate | | 30-Year | Spread | Yield |
| | | Aaa-rated | Baa-rated | Treasury | | |
| 2015 | Third | 4.1% | 5.1% | 3.0% | 1.00% | 4.00% |
| 2015 | Fourth | 4.2% | 5.2% | 3.1% | 1.00% | 4.10% |
| 2016 | First | 4.4% | 5.4% | 3.3% | 1.00% | 4.30% |
| 2016 | Second | 4.6% | 5.5% | 3.5% | 1.00% | 4.50% |
| 2016 | Third | 4.7% | 5.7% | 3.7% | 1.00% | 4.70% |
| 2016 | Fourth | 4.9% | 5.8% | 3.8% | 1.00% | 4.80% |

4 **Q. Are there additional forecasts of interest rates that extend beyond those shown**
 5 **above?**

6 A. Yes. Twice yearly, Blue Chip provides long-term forecasts of interest rates. In its
 7 June 1, 2015 publication, Blue Chip published longer-term forecasts of interest
 8 rates, which were reported to be:

| Averages | Blue Chip Financial Forecasts | | |
|-----------|-------------------------------|-----------|----------|
| | Corporate | | 30-Year |
| | Aaa-rated | Baa-rated | Treasury |
| 2017-2021 | 5.9% | 6.7% | 4.8% |
| 2022-2026 | 6.1% | 6.9% | 5.0% |

9 The longer term forecasts by Blue Chip suggest that interest rates will move up
 10 from the levels revealed by the near term forecasts. By focusing more on the near
 11 term forecasts, a 4.75% yield on A-rated public utility bonds represents a
 12 conservative benchmark for measuring the cost of equity in this case.

13 **Q. What equity risk premium have you determined for public utilities?**

DIRECT TESTIMONY OF PAUL R. MOUL

1 A. To develop an appropriate equity risk premium, I analyzed the results from Stocks,
2 Bonds, Bills and Inflation ("SBB") 2015 Classic Yearbook published by Ibbotson
3 Associates that is part of Morningstar. My investigation reveals that the equity risk
4 premium varies according to the level of interest rates. That is to say, the equity
5 risk premium increases as interest rates decline and it declines as interest rates
6 increase. This inverse relationship is revealed by the summary data presented
7 below and shown on page 1 of Attachment PRM-13.

Common Equity Risk Premiums

| | |
|-----------------------------------|-------|
| Low Interest Rates | 7.36% |
| Average Across All Interest Rates | 5.69% |
| High Interest Rates | 3.98% |

8 Based on my analysis of the historical data, the equity risk premium was 7.36%
9 when the marginal cost of long-term government bonds was low (i.e., 3.00%, which
10 was the average yield during periods of low rates). Conversely, when the yield on
11 long-term government bonds was high (i.e., 7.28% on average during periods of
12 high interest rates) the spread narrowed to 3.98%. Over the entire spectrum of
13 interest rates, the equity risk premium was 5.69% when the average government
14 bond yield was 5.12%. With the forecast indicating an upward movement of
15 interest rates that I described above from historically low levels, I have utilized a
16 6.50% equity risk premium. This equity risk premium is between the 7.36%

DIRECT TESTIMONY OF PAUL R. MOUL

1 premium related to periods of low interest rates and the 5.69% premium related to
2 average interest rates across all levels.

3 **Q. What common equity cost rate did you determine based on your risk premium**
4 **analysis?**

5 A. The cost of equity (i.e., “*k*”) is represented by the sum of the prospective yield for
6 long-term public utility debt (i.e., “*i*”), the equity risk premium (i.e., “*RP*”), and the
7 flotation cost (“*flot.*”) adjustment. The Risk Premium approach provides a cost of
8 equity of:

$$\begin{array}{rccccccccc} & i & + & RP & = & k & + & flot. & = & K \\ \text{Gas Group} & 4.75\% & + & 6.50\% & = & 11.25\% & + & 0.15\% & = & 11.40\% \end{array}$$

9 CAPITAL ASSET PRICING MODEL

10 **Q. What are the features of the CAPM as you have used it?**

11 A. The CAPM uses the yield on a risk-free interest bearing obligation plus a rate of
12 return premium that is proportional to the systematic risk of an investment. As
13 shown on page 2 of Attachment PRM-1, the result of the CAPM is 11.89%,
14 excluding flotation costs, and 12.04%, including flotation costs. To compute the
15 cost of equity with the CAPM, three components are necessary: a risk-free rate of
16 return (“*R_f*”), the beta measure of systematic risk (“*β*”), and the market risk
17 premium (“*R_m*-*R_f*”) derived from the total return on the market of equities reduced
18 by the risk-free rate of return. The CAPM specifically accounts for differences in
19 systematic risk (i.e., market risk as measured by the beta) between an individual
20 firm or group of firms and the entire market of equities.

DIRECT TESTIMONY OF PAUL R. MOUL

1 Q. What betas have you considered in the CAPM?

2 A. For my CAPM analysis, I initially considered the Value Line betas. As shown on
3 page 2 of Attachment PRM-3, the average beta is 0.78 for the Gas Group.

4 **Q. What betas have you used in the CAPM determined cost of equity?**

A. The betas must be reflective of the financial risk associated with the ratesetting capital structure that is measured at book value. Therefore, Value Line betas cannot be used directly in the CAPM, unless the cost rate developed using those betas is applied to a capital structure measured with market values. To develop a CAPM cost rate applicable to a book-value capital structure, the Value Line (market value) betas have been unleveraged and releveraged for the book value common equity ratios using the Hamada formula,⁷ as follows:

$$12 \quad \beta l = \beta u [1 + (1 - t) D/E + P/E]$$

13 where β_l = the leveraged beta, β_u = the unleveraged beta, t = income tax rate, D =
14 debt ratio, P = preferred stock ratio, and E = common equity ratio. The betas
15 published by Value Line have been calculated with the market price of stock and
16 are related to the market value capitalization. By using the formula shown above
17 and the capital structure ratios measured at market value, the beta would become
18 0.59 for the Gas Group if it employed no leverage and was 100% equity financed.
19 Those calculations are shown on Attachment PRM-10 under the section labeled
20 “Hamada” who is credited with developing those formulas. With the unleveraged

⁷ Robert S. Hamada, "The Effects of the Firm's Capital Structure on the Systematic Risk of Common Stocks" *The Journal of Finance* Vol. 27, No. 2, Papers and Proceedings of the Thirtieth Annual Meeting of the American Finance Association, New Orleans, Louisiana, December 27-29, 1971. (May 1972), pp.435-452.

DIRECT TESTIMONY OF PAUL R. MOUL

1 beta as a base, I calculated the leveraged beta of 0.91 for the book value capital
2 structure of the Gas Group. The book value leveraged beta that I will employ in the
3 CAPM cost of equity is 0.91 for the Gas Group.

4 **Q. What risk-free rate have you used in the CAPM?**

5 A. As shown on page 1 of Attachment PRM-14, I provided the historical yields on
6 Treasury notes and bonds. For the twelve months ended August 2015, the average
7 yield on 30-year Treasury bonds was 2.87%. For the six- and three-months ended
8 August 2015, the yields on 30-year Treasury bonds were 2.87% and 3.01%,
9 respectively. During the twelve-months ended August 2015, the range of the yields
10 on 30-year Treasury bonds was 2.46% to 3.26%. The low yields that existed during
11 recent periods can be traced to the financial crisis and its aftermath commonly
12 referred to as the Great Recession. The resulting decline in the yields on Treasury
13 obligations was attributed to a number of factors, including: the sovereign debt
14 crisis in the euro zone, concern over a possible double dip recession, the potential
15 for deflation, and the Federal Reserve's large balance sheet that was expanded
16 through the purchase of Treasury obligations and mortgage-backed securities (also
17 known as QEI, QEII, and QEIII), and the reinvestment of the proceeds from
18 maturing obligations and the lengthening of the maturity of the Fed's bond portfolio
19 through the sale of short-term Treasuries and the purchase of long-term Treasury
20 obligations (also known as "operation twist"). Essentially, low interest rates were
21 the product of the policy of the FOMC in its attempt to deal with stagnant job
22 growth, which is part of its dual mandate. The FOMC has ended its bond
23 purchasing program.

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1 As shown on page 2 of Attachment PRM-14, forecasts published by Blue
2 Chip on September 1, 2015 indicate that the yields on long-term Treasury bonds are
3 expected to be in the range of 3.0% to 3.8% during the next six quarters. The
4 longer term forecasts described previously show that the yields on 30-year Treasury
5 bonds will average 4.8% from 2017 through 2021 and 5.0% from 2022 to 2026.
6 For the reasons explained previously, forecasts of interest rates should be
7 emphasized at this time in selecting the risk-free rate of return in CAPM. Hence, I
8 have used a 3.75% risk-free rate of return for CAPM purposes, which considers not
9 only the Blue Chip forecasts, but also the recent trend in the yields on long-term
10 Treasury bonds.

11 **Q. What market premium have you used in the CAPM?**

12 A. As shown in the lower panel of data presented on page 2 of Attachment PRM-14,
13 the market premium is derived from historical data and the Value Line and S&P
14 500 returns. For the historically based market premium, I have used the arithmetic
15 mean obtained from the data presented on page 1 of Attachment PRM-13. On that
16 schedule, the market return was 12.21% on large stocks during periods of low
17 interest rates. During those periods, the yield on long-term government bonds was
18 3.00% when interest rates were low. As I describe above, interest rates are forecast
19 to trend upward in the future. To recognize that trend, I have given weight to the
20 average returns and yields that existed across all interest rate levels. As such, I
21 carried over to page 2 of Attachment PRM-14 the average large common stock
22 returns of 12.14% ($12.21\% + 12.07\% = 24.28\% \div 2$) and the average yield on long-
23 term government bonds of 4.06% ($3.00\% + 5.12\% = 8.12\% \div 2$). These financial

DIRECT TESTIMONY OF PAUL R. MOUL

1 returns rest between those experienced during periods of low interest rates and
2 those experienced across all levels of interest rates. The resulting market premium
3 is 8.08% (12.14% - 4.06%) based on historical data, as shown on page 2 of
4 Attachment PRM-14. For the forecast returns, I calculated a 12.97% total market
5 return from the Value Line data and a DCF return of 9.32% for the S&P 500. With
6 the average forecast return of 11.15% ($12.97\% + 9.32\% = 22.29\% \div 2$), I calculated
7 a market premium of 7.40% ($11.15\% - 3.75\%$) using forecast data. The market
8 premium applicable to the CAPM derived from these sources equals 7.74% (7.40%
9 $+ 8.08\% = 15.48\% \div 2$).

10 **Q. Are there adjustments to the CAPM that are necessary to fully reflect the rate**
11 **of return on common equity?**

12 A. Yes. The technical literature supports an adjustment relating to the size of the
13 company or portfolio for which the calculation is performed. As the size of a firm
14 decreases, its risk and required return increases. Moreover, in his discussion of the
15 cost of capital, Professor Brigham has indicated that smaller firms have higher
16 capital costs than otherwise similar larger firms.⁸ Also, the Fama/French study (see
17 "The Cross-Section of Expected Stock Returns"; The Journal of Finance, June
18 1992) established that the size of a firm helps explain stock returns. In an October
19 15, 1995 article in Public Utility Fortnightly, entitled "Equity and the Small-Stock
20 Effect," it was demonstrated that the CAPM could understate the cost of equity
21 significantly according to a company's size. Indeed, it was demonstrated in the

⁸ See Fundamentals of Financial Management, Fifth Edition, at 623.

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1 SBBI Yearbook that the returns for stocks in lower deciles (i.e., smaller stocks)
2 were in excess of those shown by the simple CAPM. In this regard, the Gas Group
3 has a market-based average equity capitalization of \$2,319 million. The mid-cap
4 adjustment of 1.10%, as revealed on page 3 of Attachment PRM-14, would be
5 warranted at a minimum.

6 **Q. What CAPM result have you determined?**

7 A. Using the 3.75% risk-free rate of return, the leverage adjusted beta of 0.91 for the
8 Gas Group, the 7.74% market premium, the 1.10% size adjustment, and the 0.15%
9 flotation cost adjustment, the following result is indicated.

$$\begin{array}{rcllclclclclclcl} Rf & + & \beta & \times & (Rm-Rf) & + & size & = & k & + & flot. & = & K \\ \text{Gas Group} & 3.75\% & + & 0.91 & \times & (7.74\%) & + & 1.10\% & = & 11.89\% & + & 0.15\% & = & 12.04\% \end{array}$$

10 COMPARABLE EARNINGS APPROACH

11 **Q. How have you applied the Comparable Earnings approach in this case?**

12 A. The Comparable Earnings approach determines the equity return based upon results
13 from non-regulated companies. It is the oldest of all rate of return methods, having
14 been around for about one-century. Because regulation is a substitute for
15 competitively determined prices, the returns realized by non-regulated firms with
16 comparable risks to a public utility provide useful insight into a fair rate of return.
17 In order to identify the appropriate return, it is necessary to analyze returns earned
18 (or realized) by other firms within the context of the Comparable Earnings standard.
19 The firms selected for the Comparable Earnings approach should be companies

DIRECT TESTIMONY OF PAUL R. MOUL

1 whose prices are not subject to cost-based price ceilings (i.e., non-regulated firms)
2 so that circularity is avoided.

3 There are two avenues available to implement the Comparable Earnings
4 approach. One method involves the selection of another industry (or industries)
5 with comparable risks to the public utility in question, and the results for all
6 companies within that industry serve as a benchmark. The second approach
7 requires the selection of parameters that represent similar risk traits for the public
8 utility and the comparable risk companies. Using this approach, the business lines
9 of the comparable companies become unimportant. The latter approach is
10 preferable with the further qualification that the comparable risk companies exclude
11 regulated firms in order to avoid the circular reasoning implicit in the use of the
12 achieved earnings/book ratios of other regulated firms. The United States Supreme
13 Court has held that:

14 A public utility is entitled to such rates as will permit it to
15 earn a return on the value of the property which it employs
16 for the convenience of the public equal to that generally
17 being made at the same time and in the same general part of
18 the country on investments in other business undertakings
19 which are attended by corresponding risks and
20 uncertainties. The return should be reasonably sufficient to
21 assure confidence in the financial soundness of the utility
22 and should be adequate, under efficient and economical
23 management, to maintain and support its credit and enable
24 it to raise the money necessary for the proper discharge of
25 its public duties. Bluefield Water Works vs. Public Service
26 Board, 262 U.S. 668 (1923).

27
28 It is important to identify the returns earned by firms that compete for capital with a
29 public utility. This can be accomplished by analyzing the returns of non-regulated
30 firms that are subject to the competitive forces of the marketplace.

DIRECT TESTIMONY OF PAUL R. MOUL

1 **Q. How have you implemented the Comparable Earnings Approach?**

2 A. In order to implement the Comparable Earnings approach, non-regulated companies
3 were selected from The Value Line Investment Survey for Windows that have six
4 categories of comparability designed to reflect the risk of the Gas Group. These
5 screening criteria were based upon the range as defined by the rankings of the
6 companies in the Gas Group. The items considered were: Timeliness Rank, Safety
7 Rank, Financial Strength, Price Stability, Value Line betas, and Technical Rank.
8 The definition for these parameters is provided on page 3 of Attachment PRM-15.
9 The identities of the companies comprising the Comparable Earnings group and
10 their associated rankings within the ranges are identified on page 1 of Attachment
11 PRM-15.

12 Value Line data was relied upon because it provides a comprehensive
13 basis for evaluating the risks of the comparable firms. As to the returns calculated
14 by Value Line for these companies, there is some downward bias in the figures
15 shown on page 2 of Attachment PRM-15, because Value Line computes the returns
16 on year-end rather than average book value. If average book values had been
17 employed, the rates of return would have been slightly higher. Nevertheless, these
18 are the returns considered by investors when taking positions in these stocks.
19 Because many of the comparability factors, as well as the published returns, are
20 used by investors in selecting stocks, and the fact that investors rely on the Value
21 Line service to gauge returns, it is an appropriate database for measuring
22 comparable return opportunities.

23 **Q. What data have you used in your Comparable Earnings analysis?**

DIRECT TESTIMONY OF PAUL R. MOUL

1 A. I have used both historical realized returns and forecasted returns for non-utility
2 companies. As noted previously, I have not used returns for utility companies in
3 order to avoid the circularity that arises from using regulatory-influenced returns to
4 determine a regulated return. It is appropriate to consider a relatively long
5 measurement period in the Comparable Earnings approach in order to cover
6 conditions over an entire business cycle. A ten-year period (five historical years
7 and five projected years) is sufficient to cover an average business cycle. Unlike
8 the DCF and CAPM, the results of the Comparable Earnings method can be applied
9 directly to the book value capitalization. In other words, the Comparable Earnings
10 approach does not contain the potential misspecification contained in market
11 models when the market capitalization and book value capitalization diverge
12 significantly. A point of demarcation was chosen to eliminate the results of highly
13 profitable enterprises, which the Bluefield case stated were not the type of returns
14 that a utility was entitled to earn. For this purpose, I used 20% as the point where
15 those returns could be viewed as highly profitable and should be excluded from the
16 Comparable Earnings approach. The average historical rate of return on book
17 common equity was 12.3% using only the returns that were less than 20%, as
18 shown on page 2 of Attachment PRM-15. The average forecasted rate of return as
19 published by Value Line is 13.3% also using values less than 20%, as provided on
20 page 2 of Attachment PRM-15. Using the average of these data my Comparable
21 Earnings result is 12.80%, as shown on page 2 of Attachment PRM-1.

CONCLUSION ON COST OF EQUITY

23 **Q. What is your conclusion regarding the Company's cost of common equity?**

DIRECT TESTIMONY OF PAUL R. MOUL

1 A. Based upon the application of a variety of methods and models described
2 previously, it is my opinion that the rate of return on common equity is 11.00%. It
3 is essential that the Commission employ a variety of techniques to measure the
4 Company's cost of equity because of the limitations/infirmities that are inherent in
5 each method. In conclusion, the Company is entitled to an 11.00% rate of return on
6 common equity so that it can compete in the capital markets and be compensated
7 for its risk profile.

8 **Q. Does this conclude your direct testimony at this time?**

9 A. Yes, it does.

1 **APPENDIX A TO DIRECT TESTIMONY OF PAUL R. MOUL**
2
3 **EDUCATIONAL BACKGROUND, BUSINESS EXPERIENCE**
4 **AND QUALIFICATIONS**

5 I was awarded a degree of Bachelor of Science in Business Administration by
6 Drexel University in 1971. While at Drexel, I participated in the Cooperative Education
7 Program which included employment, for one year, with American Water Works Service
8 Company, Inc., as an internal auditor, where I was involved in the audits of several
9 operating water companies of the American Water Works System and participated in the
10 preparation of annual reports to regulatory agencies and assisted in other general
11 accounting matters.

12 Upon graduation from Drexel University, I was employed by American Water
13 Works Service Company, Inc., in the Eastern Regional Treasury Department where my
14 duties included preparation of rate case exhibits for submission to regulatory agencies, as
15 well as responsibility for various treasury functions of the thirteen New England
16 operating subsidiaries.

17 In 1973, I joined the Municipal Financial Services Department of Betz
18 Environmental Engineers, a consulting engineering firm, where I specialized in financial
19 studies for municipal water and wastewater systems.

20 In 1974, I joined Associated Utility Services, Inc., now known as AUS
21 Consultants. I held various positions with the Utility Services Group of AUS
22 Consultants, concluding my employment there as a Senior Vice President.

23 In 1994, I formed P. Moul & Associates, an independent financial and regulatory
24 consulting firm. In my capacity as Managing Consultant and for the past forty-one years,
25 I have continuously studied the rate of return requirements for cost of service-regulated

APPENDIX A TO DIRECT TESTIMONY OF PAUL R. MOUL

1 firms. In this regard, I have supervised the preparation of rate of return studies, which
2 were employed, in connection with my testimony and in the past for other individuals. I
3 have presented direct testimony on the subject of fair rate of return, evaluated rate of
4 return testimony of other witnesses, and presented rebuttal testimony.

5 My studies and prepared direct testimony have been presented before thirty-seven
6 (37) federal, state and municipal regulatory commissions, consisting of: the Federal
7 Energy Regulatory Commission; state public utility commissions in Alabama, Alaska,
8 California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana,
9 Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota,
10 Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oklahoma,
11 Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Virginia, West Virginia,
12 Wisconsin, and the Philadelphia Gas Commission, and the Texas Commission on
13 Environmental Quality. My testimony has been offered in over 300 rate cases involving
14 electric power, natural gas distribution and transmission, resource recovery, solid waste
15 collection and disposal, telephone, wastewater, and water service utility companies.
16 While my testimony has involved principally fair rate of return and financial matters, I
17 have also testified on capital allocations, capital recovery, cash working capital, income
18 taxes, factoring of accounts receivable, and take-or-pay expense recovery. My testimony
19 has been offered on behalf of municipal and investor-owned public utilities and for the
20 staff of a regulatory commission. I have also testified at an Executive Session of the
21 State of New Jersey Commission of Investigation concerning the BPU regulation of solid
22 waste collection and disposal.

APPENDIX A TO DIRECT TESTIMONY OF PAUL R. MOUL

1 I was a co-author of a verified statement submitted to the Interstate Commerce
2 Commission concerning the 1983 Railroad Cost of Capital (Ex Parte No. 452). I was
3 also co-author of comments submitted to the Federal Energy Regulatory Commission
4 regarding the Generic Determination of Rate of Return on Common Equity for Public
5 Utilities in 1985, 1986 and 1987 (Docket Nos. RM85-19-000, RM86-12-000, RM87-35-
6 000 and RM88-25-000). Further, I have been the consultant to the New York Chapter of
7 the National Association of Water Companies, which represented the water utility group
8 in the Proceeding on Motion of the Commission to Consider Financial Regulatory
9 Policies for New York Utilities (Case 91-M-0509). I have also submitted comments to
10 the Federal Energy Regulatory Commission in its Notice of Proposed Rulemaking
11 (Docket No. RM99-2-000) concerning Regional Transmission Organizations and on
12 behalf of the Edison Electric Institute in its intervention in the case of Southern California
13 Edison Company (Docket No. ER97-2355-000). Also, I was a member of the panel of
14 participants at the Technical Conference in Docket No. PL07-2 on the Composition of
15 Proxy Groups for Determining Gas and Oil Pipeline Return on Equity.

16 In late 1978, I arranged for the private placement of bonds on behalf of an
17 investor-owned public utility. I have assisted in the preparation of a report to the
18 Delaware Public Service Commission relative to the operations of the Lincoln and
19 Ellendale Electric Company. I was also engaged by the Delaware P.S.C. to review and
20 report on the proposed financing and disposition of certain assets of Sussex Shores Water
21 Company (P.S.C. Docket Nos. 24-79 and 47-79). I was a co-author of a Report on
22 Proposed Mandatory Solid Waste Collection Ordinance prepared for the Board of County
23 Commissioners of Collier County, Florida.

APPENDIX A TO DIRECT TESTIMONY OF PAUL R. MOUL

1 I have been a consultant to the Bucks County Water and Sewer Authority
2 concerning rates and charges for wholesale contract service with the City of Philadelphia.
3 My municipal consulting experience also included an assignment for Baltimore County,
4 Maryland, regarding the City/County Water Agreement for Metropolitan District
5 customers (Circuit Court for Baltimore County in Case 34/153/87-CSP-2636).

DATED: DECEMBER 16, 2015

STATE OF NEW JERSEY)
)
COUNTY OF CAMDEN)

AFFIDAVIT OF PAUL R. MOUL

PAUL R. MOUL, being first duly sworn according to law, on oath deposes and says that he is the witness whose testimony appears as "Chesapeake Utilities Corporation, Delaware Division, Direct Testimony of Paul R. Moul"; that, if asked the questions which appear in the text of the direct testimony, he would give the answers that are therein set forth; and that he adopts this testimony as his sworn direct testimony in these proceedings.


Paul R. Moul

Then personally appeared this 16th day of December 2015 the above-named Paul R. Moul and acknowledged the foregoing Testimony to be his free act and deed.
Before me,


Notary Public
My Commission Expires:

RUBY MARIE TUCKER
ID # 2165661
NOTARY PUBLIC
STATE OF NEW JERSEY
My Commission Expires May 12, 2019

CHESAPEAKE UTILITIES CORPORATION

Attachments to Accompany the

Direct Testimony

of

Paul R. Moul, Managing Consultant
P. Moul & Associates

Concerning
Cost of Capital
And
Fair Rate of Return

Chesapeake Utilities Corporation
Index of Schedules

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Chesapeake Utilities Corporation

Summary Cost of Capital
ProForma at March 31, 2016

| <u>Type of Capital</u> | <u>Ratios</u> | <u>Cost Rate</u> | <u>Weighted Cost Rate</u> |
|------------------------|----------------|----------------------|-----------------------------------|
| Debt | 39.61% | 4.82% | 1.91% |
| Equity | <u>60.39%</u> | 11.00% | <u>6.64%</u> |
| Total | <u>100.00%</u> | | <u>8.55%</u> |

Indicated levels of fixed charge coverage assuming that
the Company could actually achieve its overall cost of capital:

Pre-tax coverage of interest expense based upon a
35.00% income tax rate
(12.13% ÷ 1.91%) 6.35 x

Post-tax coverage of interest expense
(8.55% ÷ 1.91%) 4.48 x

Chesapeake Utilities Corporation

Cost of Equity
as of August 31, 2015

| | | | | | | | | | | | |
|---|--|---|--|--|--|--|--|--|--|--|--|
| Discounted Cash Flow (DCF) | | $D_1/P_0^{(1)} + g^{(2)} + lev.^{(3)} = k \times flot.^{(4)} = K$ | | | | | | | | | |
| Gas Group | | 3.39% + 5.75% + 0.83% = 9.97% x 1.015 = 10.12% | | | | | | | | | |
| Risk Premium (RP) | | $I^{(5)} + RP^{(6)} = k + flot. = K$ | | | | | | | | | |
| Gas Group | | 4.75% + 6.50% = 11.25% + 0.15% = 11.40% | | | | | | | | | |
| Capital Asset Pricing Model (CAPM) | | $Rf^{(7)} + \beta^{(8)} \times (Rm - Rf)^{(9)} + size^{(10)} = k + flot. = K$ | | | | | | | | | |
| Gas Group | | 3.75% + 0.91 x (7.74%) + 1.10% = 11.89% + 0.15% = 12.04% | | | | | | | | | |
| Comparable Earnings (CE) ⁽¹¹⁾ | | | | | | | | | | | |
| Comparable Earnings Group | | <div>HistoricalForecastAverage</div> <div>12.3%13.3%12.80%</div> | | | | | | | | | |

References: ⁽¹⁾ Schedule 07
⁽²⁾ Schedule 09
⁽³⁾ Schedule 10
⁽⁴⁾ Schedule 11
⁽⁵⁾ A-rated public utility bond yield comprised of a 3.75% risk-free rate of return (Schedule 14 page 2) and a yield spread of 1.00% (Schedule 12 page 3)
⁽⁶⁾ Schedule 13 page 1
⁽⁷⁾ Schedule 14 page 2
⁽⁸⁾ Schedule 10
⁽⁹⁾ Schedule 14 page 2
⁽¹⁰⁾ Schedule 14 page 3
⁽¹¹⁾ Schedule 15 page 2

Chesapeake Utilities Corporation
Capitalization and Financial Statistics
2010-2014, Inclusive

| | <u>2014</u> | <u>2013</u> | <u>2012</u> | <u>2011</u> | <u>2010</u> | |
|--|-----------------|-----------------|-----------------------|-----------------|-----------------|----------------|
| | | | (Millions of Dollars) | | | |
| Amount of Capital Employed | | | | | | |
| Permanent Capital | \$ 473.6 | \$ 410.3 | \$ 371.8 | \$ 363.8 | \$ 328.5 | |
| Short-Term Debt | \$ 88.2 | \$ 105.7 | \$ 61.2 | \$ 34.7 | \$ 64.0 | |
| Total Capital | <u>\$ 561.8</u> | <u>\$ 515.9</u> | <u>\$ 433.0</u> | <u>\$ 398.5</u> | <u>\$ 392.4</u> | |
| Market-Based Financial Ratios | | | | | | <u>Average</u> |
| Price-Earnings Multiple | 18 x | 16 x | 15 x | 14 x | 13 x | 15 x |
| Market/Book Ratio | 226.1% | 192.3% | 171.1% | 164.6% | 152.3% | 181.3% |
| Dividend Yield | 2.4% | 2.8% | 3.2% | 3.4% | 3.7% | 3.1% |
| Dividend Payout Ratio | 43.4% | 45.0% | 47.8% | 47.2% | 47.5% | 46.2% |
| Capital Structure Ratios | | | | | | |
| Based on Permanent Capital: | | | | | | |
| Long-Term Debt | 35.4% | 31.4% | 29.6% | 32.6% | 30.1% | 31.8% |
| Preferred Stock | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Common Equity ⁽¹⁾ | <u>64.6%</u> | <u>68.6%</u> | <u>70.4%</u> | <u>67.4%</u> | <u>69.9%</u> | <u>68.2%</u> |
| | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> |
| Based on Total Capital: | | | | | | |
| Total Debt incl. Short Term | 45.5% | 45.5% | 39.6% | 38.4% | 41.5% | 42.1% |
| Preferred Stock | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Common Equity ⁽¹⁾ | <u>54.5%</u> | <u>54.5%</u> | <u>60.4%</u> | <u>61.6%</u> | <u>58.5%</u> | <u>57.9%</u> |
| | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> |
| Rate of Return on Book Common Equity ⁽¹⁾ | 12.3% | 12.1% | 11.4% | 11.6% | 11.8% | 11.8% |
| Operating Ratio ⁽²⁾ | 86.1% | 85.7% | 85.0% | 87.1% | 87.7% | 86.3% |
| Coverage incl. AFUDC ⁽³⁾ | | | | | | |
| Pre-tax: All Interest Charges | 7.29 x | 7.56 x | 6.44 x | 6.07 x | 5.70 x | 6.61 x |
| Post-tax: All Interest Charges | 4.78 x | 4.92 x | 4.26 x | 4.07 x | 3.85 x | 4.38 x |
| Overall Coverage: All Int. & Pfd. Div. | 4.78 x | 4.92 x | 4.26 x | 4.07 x | 3.85 x | 4.38 x |
| Coverage excl. AFUDC ⁽⁴⁾ | | | | | | |
| Pre-tax: All Interest Charges | 7.29 x | 7.54 x | 6.42 x | 6.07 x | 5.70 x | 6.60 x |
| Post-tax: All Interest Charges | 4.78 x | 4.90 x | 4.25 x | 4.07 x | 3.85 x | 4.37 x |
| Overall Coverage: All Int. & Pfd. Div. | 4.78 x | 4.90 x | 4.25 x | 4.07 x | 3.85 x | 4.37 x |
| Quality of Earnings & Cash Flow | | | | | | |
| AFC/Income Avail. for Common Equity | 0.2% | 0.4% | 0.4% | 0.0% | 0.0% | 0.2% |
| Effective Income Tax Rate | 39.9% | 40.2% | 40.1% | 39.4% | 39.4% | 39.8% |
| Internal Cash Generation/Construction ⁽⁵⁾ | 89.9% | 68.6% | 83.8% | 126.1% | 115.4% | 96.8% |
| Gross Cash Flow/ Avg. Total Debt ⁽⁶⁾ | 41.3% | 39.3% | 44.8% | 44.9% | 38.8% | 41.8% |
| Gross Cash Flow Interest Coverage ⁽⁷⁾ | 11.54 x | 10.47 x | 9.12 x | 8.75 x | 7.89 x | 9.55 x |
| Common Dividend Coverage ⁽⁸⁾ | 7.29 x | 6.10 x | 5.89 x | 6.08 x | 5.76 x | 6.22 x |

See Page 2 for Notes.

Chesapeake Utilities Corporation
Capitalization and Financial Statistics
2010-2014, Inclusive

Notes:

- (1) Excluding Accumulated Other Comprehensive Income ("OCI") from the equity account..
- (2) Total operating expenses, maintenance, depreciation and taxes other than income as a percentage of operating revenues.
- (3) Coverage calculations represent the number of times available earnings, both including and excluding AFUDC (allowance for funds used during construction) as reported in its entirety, cover fixed charges.
- (4) Internal cash generation/gross construction is the percentage of gross construction expenditures provided by internally-generated funds from operations after payment of all cash dividends divided by gross construction expenditures.
- (5) Gross Cash Flow (sum of net income, depreciation, amortization, net deferred income taxes and investment tax credits, less AFUDC) as a percentage of average total debt.
- (6) Gross Cash Flow (sum of net income, depreciation, amortization, net deferred income taxes and investment tax credits, less total AFUDC) plus interest charges, divided by interest charges.
- (7) Common dividend coverage is the relationship of internally generated funds from operations after payment of preferred stock dividends to common dividends paid.

Source of Information: Audited Financial Statements by Deloitte Touche Tohmatsu

| <p style="text-align: center;"><u>Gas Group</u> Capitalization and Financial Statistics ⁽¹⁾ <u>2010-2014, Inclusive</u></p> | | | | | | |
|--|-------------------|-------------------|--------------------------------------|-------------------|-------------------|----------------|
| | <u>2014</u> | <u>2013</u> | <u>2012</u> (Millions of Dollars) | <u>2011</u> | <u>2010</u> | |
| Amount of Capital Employed | | | | | | |
| Permanent Capital | \$ 2,483.7 | \$ 2,124.7 | \$ 1,832.4 | \$ 1,738.8 | \$ 1,675.8 | |
| Short-Term Debt | \$ 240.8 | \$ 247.6 | \$ 232.7 | \$ 142.2 | \$ 146.4 | |
| Total Capital | <u>\$ 2,724.5</u> | <u>\$ 2,372.3</u> | <u>\$ 2,065.1</u> | <u>\$ 1,881.0</u> | <u>\$ 1,822.2</u> | |
| Market-Based Financial Ratios | | | | | | <u>Average</u> |
| Price-Earnings Multiple | 19 x | 19 x | 17 x | 16 x | 15 x | 17 x |
| Market/Book Ratio | 196.1% | 183.7% | 182.7% | 184.2% | 173.9% | 184.1% |
| Dividend Yield | 3.2% | 3.5% | 3.6% | 3.6% | 3.8% | 3.5% |
| Dividend Payout Ratio | 64.2% | 68.8% | 61.0% | 59.3% | 57.1% | 62.1% |
| Capital Structure Ratios | | | | | | |
| Based on Permanent Capital: | | | | | | |
| Long-Term Debt | 45.7% | 43.7% | 41.6% | 41.1% | 41.9% | 42.8% |
| Preferred Stock | 0.1% | 0.2% | 0.2% | 0.2% | 0.2% | 0.2% |
| Common Equity ⁽²⁾ | <u>54.1%</u> | <u>56.1%</u> | <u>58.3%</u> | <u>58.7%</u> | <u>58.0%</u> | <u>57.0%</u> |
| | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> |
| Based on Total Capital: | | | | | | |
| Total Debt incl. Short Term | 51.9% | 51.0% | 48.4% | 46.4% | 48.2% | 49.2% |
| Preferred Stock | 0.1% | 0.1% | 0.1% | 0.2% | 0.2% | 0.1% |
| Common Equity ⁽²⁾ | <u>48.0%</u> | <u>48.9%</u> | <u>51.4%</u> | <u>53.5%</u> | <u>51.6%</u> | <u>50.7%</u> |
| | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> |
| Rate of Return on Book Common Equity ⁽²⁾ | 10.2% | 9.8% | 10.7% | 11.0% | 11.5% | 10.6% |
| Operating Ratio ⁽³⁾ | 87.2% | 87.8% | 86.7% | 88.4% | 88.8% | 87.8% |
| Coverage incl. AFUDC ⁽⁴⁾ | | | | | | |
| Pre-tax: All Interest Charges | 4.95 x | 4.73 x | 5.01 x | 4.95 x | 5.03 x | 4.93 x |
| Post-tax: All Interest Charges | 3.67 x | 3.60 x | 3.77 x | 3.61 x | 3.55 x | 3.64 x |
| Overall Coverage: All Int. & Pfd. Div. | 3.66 x | 3.58 x | 3.75 x | 3.60 x | 3.54 x | 3.63 x |
| Coverage excl. AFUDC ⁽⁴⁾ | | | | | | |
| Pre-tax: All Interest Charges | 4.89 x | 4.61 x | 4.90 x | 4.90 x | 4.99 x | 4.86 x |
| Post-tax: All Interest Charges | 3.61 x | 3.48 x | 3.67 x | 3.57 x | 3.51 x | 3.57 x |
| Overall Coverage: All Int. & Pfd. Div. | 3.60 x | 3.46 x | 3.65 x | 3.55 x | 3.50 x | 3.55 x |
| Quality of Earnings & Cash Flow | | | | | | |
| AFC/Income Avail. for Common Equity | 2.3% | 4.5% | 3.7% | 1.7% | 1.4% | 2.7% |
| Effective Income Tax Rate | 32.2% | 27.9% | 31.1% | 34.7% | 36.8% | 32.5% |
| Internal Cash Generation/Construction ⁽⁵⁾ | 82.8% | 62.9% | 69.4% | 97.9% | 121.0% | 86.8% |
| Gross Cash Flow/ Avg. Total Debt ⁽⁶⁾ | 26.2% | 24.1% | 28.7% | 30.1% | 30.4% | 27.9% |
| Gross Cash Flow Interest Coverage ⁽⁷⁾ | 7.75 x | 7.00 x | 7.16 x | 6.88 x | 7.05 x | 7.17 x |
| Common Dividend Coverage ⁽⁸⁾ | 4.66 x | 4.08 x | 4.27 x | 4.41 x | 4.73 x | 4.43 x |

See Page 2 for Notes.

Gas Group
Capitalization and Financial Statistics
2010-2014, Inclusive

Notes:

- (1) All capitalization and financial statistics for the group are the arithmetic average of the achieved results for each individual company in the group.
- (2) Excluding Accumulated Other Comprehensive Income ("OCI") from the equity account.
- (3) Total operating expenses, maintenance, depreciation and taxes other than income taxes as a percent of operating revenues.
- (4) Coverage calculations represent the number of times available earnings, both including and excluding AFUDC (allowance for funds used during construction) as reported in its entirety, cover fixed charges.
- (5) Internal cash generation/gross construction is the percentage of gross construction expenditures provided by internally-generated funds from operations after payment of all cash dividends divided by gross construction expenditures.
- (6) Gross Cash Flow (sum of net income, depreciation, amortization, net deferred income taxes and investment tax credits, less total AFUDC) plus interest charges, divided by interest charges.
- (7) Gross Cash Flow plus interest charges divided by interest charges.
- (8) Common dividend coverage is the relationship of internally-generated funds from operations after payment of preferred stock dividends to common dividends paid.

Basis of Selection:

The Gas Group includes companies that are contained in The Value Line Investment Survey within the industry group "Natural Gas Utility," they are not currently the target of a publicly-announced merger or acquisition, and after eliminating NiSource due to its electric operations and recent separation of the former natural gas pipeline/storage operations and UGI Corp. due to its highly diversified businesses.

| Ticker | Company | Corporate Credit Ratings | | Stock Traded | S&P Stock Ranking | Value Line Beta |
|---------|-------------------------------|--------------------------|-----------|--------------|-------------------|-----------------|
| | | Moody's | S&P | | | |
| ATO | Atmos Energy Corp. | A2 | A- | NYSE | A- | 0.85 |
| CPK | Chesapeake Utilities Corp. | | | NYSE | A | 0.65 |
| LG | Laclede Group | A3 | A- | NYSE | B+ | 0.70 |
| NJR | New Jersey Resources Corp. | Aa2 | A | NYSE | B+ | 0.85 |
| NWN | Northwest Natural Gas Co. | A3 | A+ | NYSE | A- | 0.70 |
| PNY | Piedmont Natural Gas Co. | A2 | A | NYSE | A | 0.80 |
| SJI | South Jersey Industries, Inc. | A2 | BBB+ | NYSE | A- | 0.85 |
| SWX | Southwest Gas Corporation | A3 | BBB+ | NYSE | B+ | 0.85 |
| WGL | WGL Holdings, Inc. | A1 | A+ | NYSE | B+ | 0.80 |
| Average | | <u>A2</u> | <u>A-</u> | | <u>B+</u> | <u>0.78</u> |

Note: Ratings are those of utility subsidiaries

Source of Information: Utility COMPUSTAT
Moody's Investors Service
Standard & Poor's Corporation

Standard & Poor's Public Utilities
Capitalization and Financial Statistics ⁽¹⁾
2010-2014, Inclusive

| | <u>2014</u> | <u>2013</u> | <u>2012</u> | <u>2011</u> | <u>2010</u> | |
|--|--------------------|--------------------|-----------------------|--------------------|--------------------|----------------|
| | | | (Millions of Dollars) | | | |
| Amount of Capital Employed | | | | | | |
| Permanent Capital | \$ 23,785.1 | \$ 22,496.2 | \$ 21,620.0 | \$ 18,840.8 | \$ 17,587.3 | |
| Short-Term Debt | \$ 887.5 | \$ 703.8 | \$ 648.9 | \$ 531.4 | \$ 435.4 | |
| Total Capital | <u>\$ 24,672.6</u> | <u>\$ 23,200.0</u> | <u>\$ 22,268.9</u> | <u>\$ 19,372.2</u> | <u>\$ 18,022.7</u> | |
| Market-Based Financial Ratios | | | | | | <u>Average</u> |
| Price-Earnings Multiple | 21 x | 21 x | 18 x | 15 x | 15 x | 18 x |
| Market/Book Ratio | 201.5% | 175.8% | 164.0% | 155.2% | 142.8% | 167.9% |
| Dividend Yield | 3.6% | 3.9% | 4.1% | 4.4% | 4.8% | 4.2% |
| Dividend Payout Ratio | 74.3% | 81.1% | 72.9% | 64.7% | 72.0% | 73.0% |
| Capital Structure Ratios | | | | | | |
| Based on Permanent Capital: | | | | | | |
| Long-Term Debt | 52.8% | 52.7% | 52.9% | 52.9% | 53.4% | 52.9% |
| Preferred Stock | 2.7% | 1.9% | 1.6% | 1.3% | 1.3% | 1.8% |
| Common Equity ⁽²⁾ | <u>44.4%</u> | <u>45.4%</u> | <u>45.5%</u> | <u>45.8%</u> | <u>45.3%</u> | <u>45.3%</u> |
| | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> |
| Based on Total Capital: | | | | | | |
| Total Debt incl. Short Term | 54.7% | 54.3% | 54.5% | 54.5% | 54.7% | 54.5% |
| Preferred Stock | 2.6% | 1.9% | 1.6% | 1.3% | 1.3% | 1.7% |
| Common Equity ⁽²⁾ | <u>42.7%</u> | <u>43.9%</u> | <u>44.0%</u> | <u>44.3%</u> | <u>44.0%</u> | <u>43.8%</u> |
| | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> |
| Rate of Return on Book Common Equity ⁽²⁾ | 9.9% | 8.4% | 9.2% | 10.5% | 10.8% | 9.8% |
| Operating Ratio ⁽³⁾ | 81.0% | 81.3% | 81.3% | 81.4% | 81.6% | 81.3% |
| Coverage incl. AFUDC ⁽⁴⁾ | | | | | | |
| Pre-tax: All Interest Charges | 3.57 x | 3.24 x | 2.94 x | 3.35 x | 3.34 x | 3.29 x |
| Post-tax: All Interest Charges | 2.70 x | 2.46 x | 2.35 x | 2.59 x | 2.52 x | 2.52 x |
| Overall Coverage: All Int. & Pfd. Div. | 2.67 x | 2.43 x | 2.32 x | 2.57 x | 2.50 x | 2.50 x |
| Coverage excl. AFUDC ⁽⁴⁾ | | | | | | |
| Pre-tax: All Interest Charges | 3.47 x | 3.15 x | 2.85 x | 3.25 x | 3.25 x | 3.19 x |
| Post-tax: All Interest Charges | 2.60 x | 2.36 x | 2.25 x | 2.49 x | 2.43 x | 2.43 x |
| Overall Coverage: All Int. & Pfd. Div. | 2.57 x | 2.34 x | 2.22 x | 2.47 x | 2.41 x | 2.40 x |
| Quality of Earnings & Cash Flow | | | | | | |
| AFC/Income Avail. for Common Equity | 7.6% | 7.6% | 7.1% | 5.7% | 6.7% | 6.9% |
| Effective Income Tax Rate | 30.2% | 35.2% | 31.8% | 33.5% | 34.3% | 33.0% |
| Internal Cash Generation/Construction ⁽⁵⁾ | 85.0% | 80.3% | 75.0% | 89.4% | 108.0% | 87.5% |
| Gross Cash Flow/ Avg. Total Debt ⁽⁶⁾ | 23.3% | 22.7% | 21.9% | 23.2% | 23.9% | 23.0% |
| Gross Cash Flow Interest Coverage ⁽⁷⁾ | 5.70 x | 5.47 x | 5.37 x | 5.12 x | 5.09 x | 5.35 x |
| Common Dividend Coverage ⁽⁸⁾ | 7.00 x | 6.38 x | 4.31 x | 4.58 x | 4.88 x | 5.43 x |

See Page 2 for Notes.

Standard & Poor's Public Utilities
Capitalization and Financial Statistics
2010-2014, Inclusive

Notes:

- (1) All capitalization and financial statistics for the group are the arithmetic average of the achieved results for each individual company in the group.
- (2) Excluding Accumulated Other Comprehensive Income ("OCI") from the equity account
- (3) Total operating expenses, maintenance, depreciation and taxes other than income taxes as a percent of operating revenues.
- (4) Coverage calculations represent the number of times available earnings, both including and excluding AFUDC (allowance for funds used during construction) as reported in its entirety, cover fixed charges.
- (5) Internal cash generation/gross construction is the percentage of gross construction expenditures provided by internally-generated funds from operations after payment of all cash dividends divided by gross construction expenditures.
- (6) Gross Cash Flow (sum of net income, depreciation, amortization, net deferred income taxes and investment tax credits, less total AFUDC) as a percentage of average total debt.
- (7) Gross Cash Flow (sum of net income, depreciation, amortization, net deferred income taxes and investment tax credits, less total AFUDC) plus interest charges, divided by interest charges.
- (8) Common dividend coverage is the relationship of internally-generated funds from operations after payment of preferred stock dividends to common dividends paid.

Source of Information: Annual Reports to Shareholders
Utility COMPUSTAT

Standard & Poor's Public Utilities

Company Identities

| | Ticker | Credit Rating ⁽¹⁾ | | Common Stock Traded | S&P Stock Ranking | Value Line Beta |
|------------------------------|--------|------------------------------|-------------|---------------------------|-------------------------|-----------------------|
| | | Moody's | S&P | | | |
| AGL Resources Inc. | GAS | A2 | BBB+ | NYSE | A | 0.75 |
| Ameren Corporation | AEE | Baa1 | BBB+ | NYSE | B | 0.80 |
| American Electric Power | AEP | Baa1 | BBB | NYSE | B | 0.70 |
| CMS Energy | CMS | A3 | BBB | NYSE | B | 0.70 |
| CenterPoint Energy | CNP | A3 | A- | NYSE | B | 0.80 |
| Consolidated Edison | ED | A2 | A- | NYSE | B+ | 0.60 |
| DTE Energy Co. | DTE | A2 | BBB+ | NYSE | B+ | 0.80 |
| Dominion Resources | D | A2 | A- | NYSE | B+ | 0.70 |
| Duke Energy | DUK | A1 | BBB+ | NYSE | B | 0.65 |
| Edison Int'l | EIX | A2 | BBB+ | NYSE | B | 0.80 |
| Entergy Corp. | ETR | Baa1 | BBB | NYSE | A | 0.70 |
| EQT Corp. | EQT | Baa3 | BBB | NYSE | B+ | 1.15 |
| Exelon Corp. | EXC | A2 | BBB | NYSE | B+ | 0.75 |
| FirstEnergy Corp. | FE | Baa2 | BBB- | NYSE | B+ | 0.75 |
| Integrus Energy Group | TEG | A1 | A- | NYSE | B | 1.00 |
| NextEra Energy Inc. | NEE | A1 | A- | NYSE | A | 0.70 |
| NiSource Inc. | NI | Baa1 | BBB- | NYSE | B | 0.85 |
| Northeast Utilities | NU | Baa1 | A- | NYSE | B | 0.75 |
| NRG Energy Inc. | NRG | Ba3 | BB- | NYSE | B | 1.05 |
| ONEOK, Inc. | OKE | Baa3 | BB+ | NYSE | A- | 1.05 |
| PEPCO Holdings, Inc. | POM | Baa1 | BBB+ | NYSE | B | 0.75 |
| PG&E Corp. | PCG | A3 | BBB | NYSE | B | 0.60 |
| PPL Corp. | PPL | Baa1 | BBB | NYSE | B+ | 0.65 |
| Pinnacle West Capital | PNW | A3 | A- | NYSE | B | 0.75 |
| Public Serv. Enterprise Inc. | PEG | A2 | BBB+ | NYSE | B+ | 0.75 |
| SCANA Corp. | SCG | Baa2 | BBB+ | NYSE | A- | 0.70 |
| Sempra Energy | SRE | A1 | A | NYSE | B+ | 0.75 |
| Southern Co. | SO | A3 | A | NYSE | A- | 0.55 |
| TECO Energy | TE | A2 | BBB+ | NYSE | B | 0.95 |
| Wisconsin Energy Corp. | WEC | A1 | A- | NYSE | A | 0.65 |
| Xcel Energy Inc | XEL | A2 | A- | NYSE | B+ | 0.65 |
| Average for S&P Utilities | | <u>A3</u> | <u>BBB+</u> | | <u>B+</u> | <u>0.77</u> |

Note: ⁽¹⁾ Ratings are those of utility subsidiaries

Source of Information: Moody's Investors Service
Standard & Poor's Corporation
Standard & Poor's Stock Guide
Value Line Investment Survey for Windows

Chesapeake Utilities Corporation
Capitalization and Related Capital Structure Ratios
Actual at June 30, 2015, Estimated at March 31, 2016, and ProForma at March 31, 2016

| | Actual at June 30, 2015 | | | Estimated at March 31, 2016 | | | ProForma at March 31, 2016 | | |
|----------------------------------|-------------------------|----------------|---------|-------------------------------|----------------|--------|-------------------------------|----------------|--------|
| | Amount | | Ratios | Amount | | Ratios | Amount | | Ratios |
| | Outstanding | Excl. S-T Debt | | Outstanding | Excl. S-T Debt | | Outstanding | Excl. S-T Debt | |
| Long-Term Debt | \$ 151,681,818 | | 29.84% | \$ 215,454,545 ⁽²⁾ | | 35.79% | \$ 275,454,545 ⁽²⁾ | | 39.61% |
| Common Equity | | | | | | | | | |
| Common stock | 7,418,752 | | | 7,418,752 | | | 7,418,752 | | |
| Premium on Capital Stock | 187,903,057 | | | 191,008,057 | | | 224,508,057 ⁽³⁾ | | |
| Retained earnings ⁽¹⁾ | 161,332,819 | | | 188,107,059 | | | 188,107,059 | | |
| Deferred compensation obl. | 1,843,207 | | | 1,843,207 | | | 1,843,207 | | |
| Treasury stock | (1,843,207) | | | (1,843,207) | | | (1,843,207) | | |
| Total Common Equity | 356,654,628 | 70.16% | 59.14% | 386,533,868 | 64.21% | 53.07% | 420,033,868 | 60.39% | 57.67% |
| Total Permanent Capital | 508,336,446 | 100.00% | 84.29% | 601,988,413 | 100.00% | 82.65% | 695,488,413 | 100.00% | 95.49% |
| Short-Term Debt | 94,712,542 | | 15.71% | 126,307,553 | | 17.34% | 32,807,553 | | 4.50% |
| Total Capital | \$ 603,048,988 | | 100.00% | \$ 728,295,966 | | 99.99% | \$ 728,295,966 | | 99.99% |

Notes:

⁽¹⁾Excluding Accumulated Other Comprehensive Income

⁽²⁾Reflects changes in debt principal amounts of:

| | | |
|---------------------------|----------------|---------------|
| Chesapeake Senior Note 5 | \$ (2,727,273) | |
| Chesapeake Senior Note 6 | \$ (2,000,000) | |
| Chesapeake Senior Note 7 | \$ (1,500,000) | |
| Chesapeake Senior Note 12 | \$ 70,000,000 | \$ 60,000,000 |

⁽³⁾Reflects Additional Equity

\$ 33,500,000

Source of Information: Company provided data

Chesapeake Utilities Corporation
Calculation of the Embedded Cost of Long-Term Debt
Actual at June 30, 2015

| <u>Series</u> | <u>Principal Amount Outstanding</u> ⁽¹⁾ | <u>Percent to Total</u> | <u>Effective Cost Rate</u> ⁽²⁾ | <u>Weighted Cost Rate</u> |
|---------------------------|--|---------------------------------|---|-----------------------------------|
| Chesapeake Senior Note 5 | \$ 8,181,818 | 5.39% | 6.71% | 0.36% |
| Chesapeake Senior Note 6 | 12,000,000 | 7.91% | 5.56% | 0.44% |
| Chesapeake Senior Note 7 | 25,500,000 | 16.81% | 5.95% | 1.00% |
| Chesapeake Senior Note 8 | 29,000,000 | 19.12% | 6.38% | 1.22% |
| Chesapeake Senior Note 9 | 7,000,000 | 4.62% | 6.68% | 0.31% |
| Chesapeake Senior Note 10 | 20,000,000 | 13.19% | 3.77% | 0.50% |
| Chesapeake Senior Note 11 | <u>50,000,000</u> | <u>32.96%</u> | 3.93% | <u>1.29%</u> |
| Total | <u>\$ 151,681,818</u> | <u>100.00%</u> | | <u>5.12%</u> |

Note:

⁽¹⁾Long-term debt, net of current maturities.

⁽²⁾As calculated on page 4 of this schedule.

Source of Information: Company provided data

Chesapeake Utilities Corporation

Calculation of the Embedded Cost of Long-Term Debt
Estimated at March 31, 2016

| <u>Series</u> | <u>Principal Amount Outstanding</u> ⁽¹⁾ | <u>Percent to Total</u> | <u>Effective Cost Rate</u> ⁽²⁾ | <u>Weighted Cost Rate</u> |
|---------------------------|--|---------------------------------|---|-----------------------------------|
| Chesapeake Senior Note 5 | \$ 5,454,545 | 2.53% | 6.71% | 0.17% |
| Chesapeake Senior Note 6 | 10,000,000 | 4.64% | 5.56% | 0.26% |
| Chesapeake Senior Note 7 | 24,000,000 | 11.14% | 5.95% | 0.66% |
| Chesapeake Senior Note 8 | 29,000,000 | 13.46% | 6.38% | 0.86% |
| Chesapeake Senior Note 9 | 7,000,000 | 3.25% | 6.68% | 0.22% |
| Chesapeake Senior Note 10 | 20,000,000 | 9.28% | 3.77% | 0.35% |
| Chesapeake Senior Note 11 | 50,000,000 | 23.21% | 3.93% | 0.91% |
| Chesapeake Senior Note 12 | <u>70,000,000</u> | <u>32.49%</u> | 4.52% | <u>1.47%</u> |
| Total | <u>\$ 215,454,545</u> | <u>100.00%</u> | | <u>4.90%</u> |

Note:

⁽¹⁾Long-term debt, net of current maturities.

⁽²⁾As calculated on page 4 of this schedule.

Source of Information: Company provided data

Chesapeake Utilities Corporation
Calculation of the Embedded Cost of Long-Term Debt
ProForma at March 31, 2016

| <u>Series</u> | <u>Principal Amount Outstanding</u> ⁽¹⁾ | <u>Percent to Total</u> | <u>Effective Cost Rate</u> ⁽²⁾ | <u>Weighted Cost Rate</u> |
|---------------------------|--|---------------------------------|---|-----------------------------------|
| Chesapeake Senior Note 5 | \$ 5,454,545 | 1.98% | 6.71% | 0.13% |
| Chesapeake Senior Note 6 | 10,000,000 | 3.63% | 5.56% | 0.20% |
| Chesapeake Senior Note 7 | 24,000,000 | 8.71% | 5.95% | 0.52% |
| Chesapeake Senior Note 8 | 29,000,000 | 10.53% | 6.38% | 0.67% |
| Chesapeake Senior Note 9 | 7,000,000 | 2.54% | 6.68% | 0.17% |
| Chesapeake Senior Note 10 | 20,000,000 | 7.26% | 3.77% | 0.27% |
| Chesapeake Senior Note 11 | 50,000,000 | 18.15% | 3.93% | 0.71% |
| Chesapeake Senior Note 12 | <u>130,000,000</u> | <u>47.20%</u> | 4.52% | <u>2.13%</u> |
| Total | <u>\$ 275,454,545</u> | <u>100.00%</u> | | <u>4.82%</u> |

Note:

⁽¹⁾Long-term debt, net of current maturities.

⁽²⁾As calculated on page 4 of this schedule.

Source of Information: Company provided data

Chesapeake Utilities Corporation
Calculation of the Effective Cost of Long-Term Debt by Series

| Series | Coupon Rate | Date of Issue | Date of Maturity | Principal Amount Issued | Discount and Expense | Net Proceeds | Net Proceeds Ratio | Effective Cost Rate ⁽¹⁾ |
|---------------------------|----------------------|---------------|------------------|-------------------------|----------------------|----------------|--------------------|------------------------------------|
| Chesapeake Senior Note 5 | 6.64% | 10/31/02 | 10/31/17 | \$30,000,000 | \$141,831 | \$ 29,858,169 | 99.53% | 6.71% |
| Chesapeake Senior Note 6 | 5.50% | 10/12/06 | 10/12/20 | \$20,000,000 | \$79,566 | \$ 19,920,434 | 99.60% | 5.56% |
| Chesapeake Senior Note 7 | 5.93% | 10/31/08 | 10/31/23 | \$30,000,000 | \$39,518 | \$ 29,960,482 | 99.87% | 5.95% |
| Chesapeake Senior Note 8 | 5.68% | 06/24/11 | 06/30/26 | \$29,000,000 | \$1,496,322 | \$ 27,503,678 | 94.84% | 6.38% |
| Chesapeake Senior Note 9 | 6.43% | 05/02/13 | 05/02/28 | \$7,000,000 | \$121,631 | \$ 6,878,369 | 98.26% | 6.68% |
| Chesapeake Senior Note 10 | 3.73% | 12/16/13 | 12/16/28 | 20,000,000 | \$68,794 | \$ 19,931,206 | 99.66% | 3.77% |
| Chesapeake Senior Note 11 | 3.88% | 05/15/14 | 05/15/29 | \$50,000,000 | \$192,790 | \$ 49,807,210 | 99.61% | 3.93% |
| Chesapeake Senior Note 12 | 4.50% ⁽²⁾ | 12/31/15 | 12/31/30 | \$130,000,000 | \$220,000 | \$ 129,780,000 | 99.83% | 4.52% |

Notes: ⁽¹⁾ The effective cost for each issue is the internal rate of return ("irr") using as inputs the term of the issue, the coupon rate, the annual sinking fund payments, and the net proceeds.

⁽²⁾ Estimated

Source of Information: Company provided data

Monthly Dividend Yields for
Gas Group
for the Twelve Months Ending August 2015

| <u>Company</u> | <u>Sep-14</u> | <u>Oct-14</u> | <u>Nov-14</u> | <u>Dec-14</u> | <u>Jan-15</u> | <u>Feb-15</u> | <u>Mar-15</u> | <u>Apr-15</u> | <u>May-15</u> | <u>Jun-15</u> | <u>Jul-15</u> | <u>Aug-15</u> | <u>12-Month Average</u> | <u>6-Month Average</u> | <u>3-Month Average</u> |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------------------|----------------------------|----------------------------|
| Atmos Energy Corp (ATO) | 3.11% | 2.96% | 2.91% | 2.81% | 2.76% | 2.94% | 2.83% | 2.91% | 2.89% | 3.05% | 2.84% | 2.85% | | | |
| Chesapeake Utilities Corp (CPK) | 2.60% | 2.24% | 2.42% | 2.18% | 2.22% | 2.30% | 2.14% | 2.41% | 2.20% | 2.14% | 2.24% | 2.35% | | | |
| Laclede Group Inc (LG) | 3.80% | 3.64% | 3.66% | 3.47% | 3.44% | 3.58% | 3.60% | 3.56% | 3.47% | 3.54% | 3.42% | 3.50% | | | |
| New Jersey Resources Corporation (NJR) | 3.57% | 3.09% | 3.13% | 2.95% | 2.83% | 2.89% | 2.90% | 2.96% | 3.01% | 3.27% | 3.13% | 3.21% | | | |
| Northwest Natural Gas (NWN) | 4.39% | 3.96% | 4.01% | 3.75% | 3.73% | 3.95% | 3.90% | 3.98% | 4.18% | 4.44% | 4.30% | 4.25% | | | |
| Piedmont Natural Gas Co (PNY) | 3.82% | 3.38% | 3.44% | 3.25% | 3.32% | 3.56% | 3.58% | 3.54% | 3.56% | 3.74% | 3.49% | 3.44% | | | |
| South Jersey Industries Inc (SJI) | 3.55% | 3.45% | 3.55% | 3.42% | 3.47% | 3.57% | 3.71% | 3.83% | 3.84% | 4.07% | 4.17% | 4.21% | | | |
| Southwest Gas Corp (SWX) | 3.02% | 2.53% | 2.52% | 2.37% | 2.39% | 2.55% | 2.52% | 2.96% | 2.98% | 3.06% | 2.89% | 2.94% | | | |
| WGL Holdings Inc (WGL) | <u>4.22%</u> | <u>3.75%</u> | <u>3.62%</u> | <u>3.25%</u> | <u>3.12%</u> | <u>3.31%</u> | <u>3.14%</u> | <u>3.37%</u> | <u>3.23%</u> | <u>3.43%</u> | <u>3.32%</u> | <u>3.43%</u> | | | |
| Average | <u>3.56%</u> | <u>3.22%</u> | <u>3.25%</u> | <u>3.05%</u> | <u>3.03%</u> | <u>3.18%</u> | <u>3.15%</u> | <u>3.28%</u> | <u>3.26%</u> | <u>3.42%</u> | <u>3.31%</u> | <u>3.35%</u> | <u>3.26%</u> | <u>3.30%</u> | <u>3.36%</u> |

Note: Monthly dividend yields are calculated by dividing the annualized quarterly dividend by the month-end closing stock price adjusted by the fraction of the ex-dividend.

Source of Information: <http://performance.morningstar.com/stock/performance-return>
<http://www.snl.com/interactivex/dividends>

| | | | | | |
|--------------------------------|-------------|--------------------------------|----------|--------------------------------|---|
| Forward-looking Dividend Yield | 1/2 Growth | D ₀ /P ₀ | (.5g) | D ₁ /P ₀ | $K = \frac{D_0 (1+g)^0 + D_0 (1+g)^0 + D_0 (1+g)^1 + D_0 (1+g)^1}{P_0} + g$ |
| | | 3.30% | 1.028750 | 3.39% | |
| | Discrete | D ₀ /P ₀ | Adj. | D ₁ /P ₀ | $K = \frac{D_0 (1+g)^{25} + D_0 (1+g)^{50} + D_0 (1+g)^{75} + D_0 (1+g)^{1.00}}{P_0} + g$ |
| | | 3.30% | 1.035686 | 3.41% | |
| | Quarterly | D ₀ /P ₀ | Adj. | D ₁ /P ₀ | $K = \left[\left(1 + \frac{D_0 (1+g)^{25}}{P_0} \right)^4 - 1 \right] + g$ |
| | | 0.8238% | 1.014075 | 3.38% | |
| | Average | | | 3.39% | |
| | Growth rate | | | 5.75% | |
| | K | | | 9.14% | |

Historical Growth Rates
Earnings Per Share, Dividends Per Share,
Book Value Per Share, and Cash Flow Per Share

| Gas Group | Earnings per Share | | Dividends per Share | | Book Value per Share | | Cash Flow per Share | |
|-------------------------------|--------------------|--------------|---------------------|--------------|----------------------|--------------|---------------------|--------------|
| | Value Line | | Value Line | | Value Line | | Value Line | |
| | 5 Year | 10 Year | 5 Year | 10 Year | 5 Year | 10 Year | 5 Year | 10 Year |
| Atmos Energy Corp. | 5.00% | 5.00% | 2.00% | 1.50% | 4.50% | 6.00% | 4.00% | 5.00% |
| Chesapeake Utilities Corp. | 10.50% | 8.50% | 4.50% | 3.00% | 8.50% | 8.50% | 12.50% | 7.00% |
| Laclede Group | -2.00% | 4.00% | 3.00% | 2.50% | 7.50% | 7.00% | -2.00% | 3.00% |
| New Jersey Resources Corp. | 5.50% | 6.50% | 8.50% | 6.50% | 4.50% | 8.00% | 4.50% | 5.00% |
| Northwest Natural Gas | -4.00% | 2.50% | 3.50% | 3.50% | 3.00% | 3.50% | -1.00% | 3.00% |
| Piedmont Natural Gas Co. | 3.50% | 5.00% | 3.50% | 4.00% | 4.00% | 5.00% | 3.50% | 5.00% |
| South Jersey Industries, Inc. | 6.50% | 8.00% | 10.00% | 8.50% | 8.00% | 8.50% | 7.50% | 8.00% |
| Southwest Gas Corp. | 11.00% | 8.50% | 8.00% | 5.00% | 5.00% | 5.00% | 6.00% | 4.50% |
| WGL Holdings, Inc. | 1.50% | 3.50% | 3.00% | 2.50% | 3.00% | 4.00% | 1.50% | 2.50% |
| Average | <u>4.17%</u> | <u>5.72%</u> | <u>5.11%</u> | <u>4.11%</u> | <u>5.33%</u> | <u>6.17%</u> | <u>4.06%</u> | <u>4.78%</u> |

Source of Information: Value Line Investment Survey, September 4, 2015

Analysts' Five-Year Projected Growth Rates
Earnings Per Share, Dividends Per Share,
Book Value Per Share, and Cash Flow Per Share

| Gas Group | I/B/E/S First Call | Zacks | Morningstar | SNL | Value Line | | | | |
|-------------------------------|--------------------------|-------|--------------------|-------|-----------------------|------------------------|----------------------------|---------------------------|---|
| | | | | | Earnings Per Share | Dividends Per Share | Book Value Per Share | Cash Flow Per Share | Percent Retained to Common Equity |
| Atmos Energy Corp. | 7.00% | 7.00% | 6.60% | 6.80% | 7.00% | 5.00% | 4.50% | 4.50% | 5.50% |
| Chesapeake Utilities Corp. | 3.00% | NA | 3.00% | NA | 8.50% | 5.50% | 9.00% | 7.50% | 7.00% |
| Laclede Group, Inc. | 4.42% | 4.90% | - | 4.70% | 10.00% | 4.50% | 7.50% | 8.50% | 4.00% |
| New Jersey Resources Corp. | 6.00% | 6.00% | MNF ⁽¹⁾ | 6.00% | 4.00% | 3.50% | 7.50% | 4.50% | 6.50% |
| Northwest Natural Gas | 4.00% | 4.00% | 4.00% | 4.00% | 7.00% | 2.50% | 3.50% | 4.50% | 3.50% |
| Piedmont Natural Gas Co. | 5.00% | 5.00% | 7.60% | 6.00% | 3.00% | 3.00% | 4.50% | 2.00% | 3.00% |
| South Jersey Industries, Inc. | 6.00% | NA | 6.00% | NA | 7.50% | 7.00% | 6.50% | 7.50% | 5.50% |
| Southwest Gas Corporation | 4.00% | 5.00% | 2.40% | 4.00% | 7.00% | 8.00% | 4.50% | 5.50% | 6.00% |
| WGL Holdings, Inc. | 6.50% | 6.00% | 6.80% | 6.90% | 5.50% | 3.00% | 3.50% | 4.00% | 5.00% |
| Average | 5.10% | 5.41% | 5.20% | 5.49% | 6.61% | 4.67% | 5.67% | 5.39% | 5.11% |

Note: ⁽¹⁾ Excluding negative growth rate of -14.20% by Morningstar

Source of Information :
 Yahoo Finance, September 2, 2015
 Zacks, September 2, 2015
 Morningstar, September 2, 2015
 SNL, September 2, 2015
 Value Line Investment Survey, September 4, 2015

| Gas Group | | | | | | | | | | | | | | | | | |
|------------------------------------|--------------|------------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---|-------|---------|---|--------|----------|
| Financial Risk Adjustment | | | | | | | | | | | | | | | | | |
| | | ATMOS Energy | Chesapeake | Laclede Group | New Jersey | Northwest | Piedmont | South Jersey | Southwest Gas | WGL Holdings | | | | | | | |
| | | (NYSE:ATO) | (NYSE:CPK) | (NYSE:LG) | (NYSE:NJR) | (NYSE:NWN) | (NYSE:PNY) | (NYSE:SJI) | (SWX) | (NYSE:WGL) | Average | | | | | | |
| Fiscal Year | | 09/30/14 | 12/31/14 | 09/30/14 | 09/30/14 | 12/31/14 | 10/31/14 | 12/31/14 | 12/31/14 | 09/30/14 | | | | | | | |
| Capitalization at Fair Values | | | | | | | | | | | | | | | | | |
| | Debt(D) | 2,769,541 | 180,700 | 1,937,300 | 586,909 | 756,808 | 1,617,453 | 1,058,500 | 1,795,928 | 809,300 | 1,279,160 | | | | | | |
| | Preferred(P) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28,173 | 3,130 | | | | | | |
| | Equity(E) | <u>4,788,512</u> | <u>724,475</u> | <u>2,003,729</u> | <u>1,982,284</u> | <u>1,361,472</u> | <u>2,984,963</u> | <u>2,013,487</u> | <u>2,875,598</u> | <u>2,133,654</u> | <u>2,318,686</u> | | | | | | |
| | Total | <u>7,558,053</u> | <u>905,175</u> | <u>3,941,029</u> | <u>2,569,193</u> | <u>2,118,280</u> | <u>4,602,416</u> | <u>3,071,987</u> | <u>4,671,526</u> | <u>2,971,127</u> | <u>3,600,976</u> | | | | | | |
| Capital Structure Ratios | | | | | | | | | | | | | | | | | |
| | Debt(D) | 36.64% | 19.96% | 49.16% | 22.84% | 35.73% | 35.14% | 34.46% | 38.44% | 27.24% | 33.29% | | | | | | |
| | Preferred(P) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.95% | 0.11% | | | | | | |
| | Equity(E) | 63.36% | 80.04% | 50.84% | 77.16% | 64.27% | 64.86% | 65.54% | 61.56% | 71.81% | 66.60% | | | | | | |
| | Total | <u>100.00%</u> | <u>100.00%</u> | <u>100.00%</u> | <u>100.00%</u> | <u>100.00%</u> | <u>100.00%</u> | <u>100.00%</u> | <u>100.00%</u> | <u>100.00%</u> | <u>100.00%</u> | | | | | | |
| Common Stock | | | | | | | | | | | | | | | | | |
| | Issued | 100,388.092 | 14,588.711 | 43,183.818 | 42,178.156 | 27,284.000 | 78,531.000 | 34,167.430 | 46,523.184 | 50,656.553 | | | | | | | |
| | Treasury | 0.000 | 0.000 | 0.000 | 2,932.775 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | | | | | | | |
| | Outstanding | 100,388.092 | 14,588.711 | 43,183.818 | 39,245.381 | 27,284.000 | 78,531.000 | 34,167.430 | 46,523.184 | 50,656.553 | | | | | | | |
| | Market Price | \$ 47.70 | \$ 49.66 | \$ 46.40 | \$ 50.51 | \$ 49.90 | \$ 38.01 | \$ 58.93 | \$ 61.81 | \$ 42.12 | | | | | | | |
| Capitalization at Carrying Amounts | | | | | | | | | | | | | | | | | |
| | Debt(D) | 2,460,000 | 161,500 | 1,851,000 | 557,845 | 661,700 | 1,425,000 | 1,009,400 | 1,663,950 | 679,200 | 1,163,288 | | | | | | |
| | Preferred(P) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28,173 | 3,130 | | | | | | |
| | Equity(E) | <u>3,086,232</u> | <u>300,322</u> | <u>1,508,400</u> | <u>966,166</u> | <u>767,321</u> | <u>1,308,602</u> | <u>932,432</u> | <u>1,488,523</u> | <u>1,246,576</u> | <u>1,289,397</u> | | | | | | |
| | Total | <u>5,546,232</u> | <u>461,822</u> | <u>3,359,400</u> | <u>1,524,011</u> | <u>1,429,021</u> | <u>2,733,602</u> | <u>1,941,832</u> | <u>3,152,473</u> | <u>1,953,949</u> | <u>2,455,816</u> | | | | | | |
| Capital Structure Ratios | | | | | | | | | | | | | | | | | |
| | Debt(D) | 44.35% | 34.97% | 55.10% | 36.60% | 46.30% | 52.13% | 51.98% | 52.78% | 34.76% | 45.44% | | | | | | |
| | Preferred(P) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 1.44% | 0.16% | | | | | | |
| | Equity(E) | <u>55.65%</u> | <u>65.03%</u> | <u>44.90%</u> | <u>63.40%</u> | <u>53.70%</u> | <u>47.87%</u> | <u>48.02%</u> | <u>47.22%</u> | <u>63.80%</u> | <u>54.40%</u> | | | | | | |
| | Total | <u>100.00%</u> | <u>100.00%</u> | <u>100.00%</u> | <u>100.00%</u> | <u>100.00%</u> | <u>100.00%</u> | <u>100.00%</u> | <u>100.00%</u> | <u>100.00%</u> | <u>100.00%</u> | | | | | | |
| Betas | Value Line | 0.85 | 0.65 | 0.70 | 0.85 | 0.70 | 0.80 | 0.85 | 0.85 | 0.80 | 0.78 | | | | | | |
| Hamada | BI | = | Bu | [1+ (1 - t) | D/E | + | P/E |] | | | | | | | | | |
| | 0.78 | = | Bu | [1+ (1-0.35) | 0.4998 | + | 0.0017 |] | | | | | | | | | |
| | 0.78 | = | Bu | [1+ 0.65 | 0.4998 | + | 0.0017 |] | | | | | | | | | |
| | 0.78 | = | Bu | 1.3266 | | | | | | | | | | | | | |
| | 0.59 | = | Bu | | | | | | | | | | | | | | |
| Hamada | BI | = | 0.59 | [1+ (1 - t) | D/E | + | P/E |] | | | | | | | | | |
| | BI | = | 0.59 | [1+ 0.65 | 0.8353 | + | 0.0029 |] | | | | | | | | | |
| | BI | = | 0.59 | 1.5458 | | | | | | | | | | | | | |
| | BI | = | 0.91 | | | | | | | | | | | | | | |
| M&M | ku | = | ke | - (((| ku | - | i) | 1-t) | D | / | E | - | (ku | - d) | P | / | E |
| | 7.91% | = | 9.14% | - (((| 7.91% | - | 4.12%) | 0.65) | 33.29% | / | 66.60% | - | 7.91% | - 5.68% |) | 0.11% | / 66.60% |
| | 7.91% | = | 9.14% | - (((| 3.79% | |) | 0.65) | 0.4998 | | | - | 2.23% | |) | 0.0017 | |
| | 7.91% | = | 9.14% | - ((| 2.46% | |) |) | 0.4998 | | | - | 2.23% | |) | 0.0017 | |
| | 7.91% | = | 9.14% | - | 1.23% | | | | | | | - | 0.00% | | | | |
| M&M | ke | = | ku | + (((| ku | - | i) | 1-t) | D | / | E | + | (ku | - d) | P | / | E |
| | 9.97% | = | 7.91% | + (((| 7.91% | - | 4.12%) | 0.65) | 45.44% | / | 54.40% | + | 7.91% | - 5.68% |) | 0.16% | / 54.40% |
| | 9.97% | = | 7.91% | + (((| 3.79% | |) | 0.65) | 0.8353 | | | + | 2.23% | |) | 0.0029 | |
| | 9.97% | = | 7.91% | + ((| 2.46% | |) |) | 0.8353 | | | + | 2.23% | |) | 0.0029 | |
| | 9.97% | = | 7.91% | + | 2.05% | | | | | | | + | 0.01% | | | | |

Analysis of Public Offerings of Gas Distribution Company Common Stock

| Company | Date of Offering | No. of shares offered | Dollar amount of offering | Price to public | Underwriters' discount and commission | Gross Proceeds per share | Estimated company issuance expenses | Net proceeds per share | Percent of offering price | | |
|------------------------------------|------------------|-----------------------|---------------------------|-----------------|---------------------------------------|--------------------------|-------------------------------------|------------------------|---------------------------------------|-------------------------------------|------------------------------------|
| | | | | | | | | | Underwriters' discount and commission | Estimated company issuance expenses | Total Issuance and selling expense |
| Piedmont Natural Gas Company, Inc. | 01/29/13 | 4,000,000 | \$ 128,000,000 | \$32.00 | 1.120 | \$30.880 | \$0.088 | \$30.792 | 3.5% | 0.3% | 3.8% |
| Atmos Energy Corporation | 12/07/06 | 5,500,000 | \$ 173,250,000 | \$31.50 | 1.103 | \$30.398 | \$0.073 | \$30.325 | 3.5% | 0.2% | 3.7% |
| AGL Resources Inc. | 11/19/04 | 9,600,000 | \$ 297,696,000 | \$31.01 | 0.930 | \$30.080 | \$0.042 | \$30.038 | 3.0% | 0.1% | 3.1% |
| Atmos Energy Corporation | 10/21/04 | 14,000,000 | \$ 346,500,000 | \$24.75 | 0.990 | \$23.760 | \$0.029 | \$23.731 | 4.0% | 0.1% | 4.1% |
| Atmos Energy Corporation | 07/19/04 | 8,650,000 | \$ 214,087,500 | \$24.75 | 0.990 | \$23.760 | \$0.046 | \$23.714 | 4.0% | 0.2% | 4.2% |
| The Laclede Group, Inc. | 05/25/04 | 1,500,000 | \$ 40,200,000 | \$26.80 | 0.871 | \$25.929 | \$0.067 | \$25.862 | 3.3% | 0.3% | 3.6% |
| Northwest Natural Gas Company | 03/30/04 | 1,200,000 | \$ 37,200,000 | \$31.00 | 1.010 | \$29.990 | \$0.146 | \$29.844 | 3.3% | 0.5% | 3.8% |
| Piedmont Natural Gas Company, Inc. | 01/23/04 | 4,250,000 | \$ 180,625,000 | \$42.50 | 1.490 | \$41.010 | \$0.082 | \$40.928 | 3.5% | 0.2% | 3.7% |
| Atmos Energy Corporation | 06/18/03 | 4,000,000 | \$ 101,240,000 | \$25.31 | 1.012 | \$24.298 | \$0.095 | \$24.203 | 4.0% | 0.4% | 4.4% |
| AGL Resources Inc. | 02/11/03 | 5,600,000 | \$ 123,200,000 | \$22.00 | 0.770 | \$21.230 | \$0.045 | \$21.185 | 3.5% | 0.2% | 3.7% |
| WGL Holdings, Inc | 06/26/01 | 1,790,000 | \$ 47,846,700 | \$26.73 | 0.895 | \$25.835 | \$0.031 | \$25.804 | 3.3% | 0.1% | 3.4% |
| Atmos Energy Corporation | 11/07/00 | 6,000,000 | \$ 133,500,000 | \$22.25 | 1.110 | \$21.140 | \$0.058 | \$21.082 | 5.0% | 0.3% | 5.3% |
| Average | | | | | | | | | 3.7% | 0.2% | 3.9% |

Source of Information: SNL Financial and SEC filings

**Interest Rates for Investment Grade Public Utility Bonds
Yearly for 2010-2014
and the Twelve Months Ended August 2015**

| <u>Years</u> | <u>Aa Rated</u> | <u>A Rated</u> | <u>Baa Rated</u> | <u>Average</u> |
|---------------------------------|---------------------|--------------------|----------------------|----------------|
| 2010 | 5.24% | 5.46% | 5.96% | 5.55% |
| 2011 | 4.78% | 5.04% | 5.57% | 5.13% |
| 2012 | 3.83% | 4.13% | 4.86% | 4.27% |
| 2013 | 4.24% | 4.48% | 4.98% | 4.57% |
| 2014 | 4.19% | 4.28% | 4.80% | 4.42% |
| Five-Year Average | <u>4.46%</u> | <u>4.68%</u> | <u>5.23%</u> | <u>4.79%</u> |
| <u>Months</u> | | | | |
| Sep-14 | 4.18% | 4.24% | 4.79% | 4.40% |
| Oct-14 | 3.98% | 4.06% | 4.67% | 4.24% |
| Nov-14 | 4.03% | 4.09% | 4.75% | 4.29% |
| Dec-14 | 3.90% | 3.95% | 4.70% | 4.18% |
| Jan-15 | 3.52% | 3.58% | 4.39% | 3.83% |
| Feb-15 | 3.62% | 3.67% | 4.44% | 3.91% |
| Mar-15 | 3.67% | 3.74% | 4.51% | 3.97% |
| Apr-15 | 3.63% | 3.75% | 4.51% | 3.96% |
| May-15 | 4.05% | 4.17% | 4.91% | 4.38% |
| Jun-15 | 4.29% | 4.39% | 5.13% | 4.60% |
| Jul-15 | 4.27% | 4.40% | 5.22% | 4.63% |
| Aug-15 | 4.13% | 4.25% | 5.23% | 4.54% |
| Twelve-Month Average | <u>3.94%</u> | <u>4.02%</u> | <u>4.77%</u> | <u>4.24%</u> |
| Six-Month Average | <u>4.01%</u> | <u>4.12%</u> | <u>4.92%</u> | <u>4.35%</u> |
| Three-Month Average | <u>4.23%</u> | <u>4.35%</u> | <u>5.19%</u> | <u>4.59%</u> |

Source: Mergent Bond Record

Yields on A-rated Public Utility Bonds and Spreads over 30-Year Treasuries



A rated Public Utility Bonds over 30-Year Treasuries

| | | <u>30-Year Treasuries</u> | | | | <u>30-Year Treasuries</u> | | | | <u>30-Year Treasuries</u> | | | | <u>30-Year Treasuries</u> | | | | <u>30-Year Treasuries</u> | |
|-------------|-----------------------------------|---------------------------|---------------|-------------|-----------------------------------|---------------------------|---------------|-------------|-----------------------------------|---------------------------|---------------|-------------|-----------------------------------|---------------------------|---------------|---|-----------------------------------|---------------------------|---------------|
| <u>Year</u> | <u>A-rated Public Utility</u> | <u>Yield</u> | <u>Spread</u> | <u>Year</u> | <u>A-rated Public Utility</u> | <u>Yield</u> | <u>Spread</u> | <u>Year</u> | <u>A-rated Public Utility</u> | <u>Yield</u> | <u>Spread</u> | <u>Year</u> | <u>A-rated Public Utility</u> | <u>Yield</u> | <u>Spread</u> | <u>Year</u> | <u>A-rated Public Utility</u> | <u>Yield</u> | <u>Spread</u> |
| Jan-99 | 6.97% | 5.16% | 1.81% | Jan-03 | 7.07% | | | Jan-07 | 5.96% | 4.85% | 1.11% | Jan-11 | 5.57% | 4.52% | 1.05% | Jan-15 | 3.58% | 2.46% | 1.12% |
| Feb-99 | 7.09% | 5.37% | 1.72% | Feb-03 | 6.93% | | | Feb-07 | 5.90% | 4.82% | 1.08% | Feb-11 | 5.68% | 4.65% | 1.03% | Feb-15 | 3.67% | 2.57% | 1.10% |
| Mar-99 | 7.26% | 5.58% | 1.68% | Mar-03 | 6.79% | | | Mar-07 | 5.85% | 4.72% | 1.13% | Mar-11 | 5.56% | 4.51% | 1.05% | Mar-15 | 3.74% | 2.63% | 1.11% |
| Apr-99 | 7.22% | 5.55% | 1.67% | Apr-03 | 6.64% | | | Apr-07 | 5.97% | 4.87% | 1.10% | Apr-11 | 5.55% | 4.50% | 1.05% | Apr-15 | 3.75% | 2.59% | 1.16% |
| May-99 | 7.47% | 5.81% | 1.66% | May-03 | 6.36% | | | May-07 | 5.99% | 4.90% | 1.09% | May-11 | 5.32% | 4.29% | 1.03% | May-15 | 4.17% | 2.96% | 1.21% |
| Jun-99 | 7.74% | 6.04% | 1.70% | Jun-03 | 6.21% | | | Jun-07 | 6.30% | 5.20% | 1.10% | Jun-11 | 5.26% | 4.23% | 1.03% | Jun-15 | 4.39% | 3.11% | 1.28% |
| Jul-99 | 7.71% | 5.98% | 1.73% | Jul-03 | 6.57% | | | Jul-07 | 6.25% | 5.11% | 1.14% | Jul-11 | 5.27% | 4.27% | 1.00% | Jul-15 | 4.40% | 3.07% | 1.33% |
| Aug-99 | 7.91% | 6.07% | 1.84% | Aug-03 | 6.78% | | | Aug-07 | 6.24% | 4.93% | 1.31% | Aug-11 | 4.69% | 3.65% | 1.04% | Aug-15 | 4.25% | 2.86% | 1.39% |
| Sep-99 | 7.93% | 6.07% | 1.86% | Sep-03 | 6.56% | | | Sep-07 | 6.18% | 4.79% | 1.39% | Sep-11 | 4.48% | 3.18% | 1.30% | | | | |
| Oct-99 | 8.06% | 6.26% | 1.80% | Oct-03 | 6.43% | | | Oct-07 | 6.11% | 4.77% | 1.34% | Oct-11 | 4.52% | 3.13% | 1.39% | | | | |
| Nov-99 | 7.94% | 6.15% | 1.79% | Nov-03 | 6.37% | | | Nov-07 | 5.97% | 4.52% | 1.45% | Nov-11 | 4.25% | 3.02% | 1.23% | | | | |
| Dec-99 | 8.14% | 6.35% | 1.79% | Dec-03 | 6.27% | | | Dec-07 | 6.16% | 4.53% | 1.63% | Dec-11 | 4.33% | 2.98% | 1.35% | | | | |
| Jan-00 | 8.35% | 6.63% | 1.72% | Jan-04 | 6.15% | | | Jan-08 | 6.02% | 4.33% | 1.69% | Jan-12 | 4.34% | 3.03% | 1.31% | Average: 12-months 6-months 3-months | | | |
| Feb-00 | 8.25% | 6.23% | 2.02% | Feb-04 | 6.15% | | | Feb-08 | 6.21% | 4.52% | 1.69% | Feb-12 | 4.36% | 3.11% | 1.25% | | | | 1.16% |
| Mar-00 | 8.28% | 6.05% | 2.23% | Mar-04 | 5.97% | | | Mar-08 | 6.21% | 4.39% | 1.82% | Mar-12 | 4.48% | 3.28% | 1.20% | | | | 1.25% |
| Apr-00 | 8.29% | 5.85% | 2.44% | Apr-04 | 6.35% | | | Apr-08 | 6.29% | 4.44% | 1.85% | Apr-12 | 4.40% | 3.18% | 1.22% | | | | 1.33% |
| May-00 | 8.70% | 6.15% | 2.55% | May-04 | 6.62% | | | May-08 | 6.28% | 4.60% | 1.68% | May-12 | 4.20% | 2.93% | 1.27% | | | | |
| Jun-00 | 8.36% | 5.93% | 2.43% | Jun-04 | 6.46% | | | Jun-08 | 6.38% | 4.69% | 1.69% | Jun-12 | 4.08% | 2.70% | 1.38% | | | | |
| Jul-00 | 8.25% | 5.85% | 2.40% | Jul-04 | 6.27% | | | Jul-08 | 6.40% | 4.57% | 1.83% | Jul-12 | 3.93% | 2.59% | 1.34% | | | | |
| Aug-00 | 8.13% | 5.72% | 2.41% | Aug-04 | 6.14% | | | Aug-08 | 6.37% | 4.50% | 1.87% | Aug-12 | 4.00% | 2.77% | 1.23% | | | | |
| Sep-00 | 8.23% | 5.83% | 2.40% | Sep-04 | 5.98% | | | Sep-08 | 6.49% | 4.27% | 2.22% | Sep-12 | 4.02% | 2.88% | 1.14% | | | | |
| Oct-00 | 8.14% | 5.80% | 2.34% | Oct-04 | 5.94% | | | Oct-08 | 7.56% | 4.17% | 3.39% | Oct-12 | 3.91% | 2.90% | 1.01% | | | | |
| Nov-00 | 8.11% | 5.78% | 2.33% | Nov-04 | 5.97% | | | Nov-08 | 7.60% | 4.00% | 3.60% | Nov-12 | 3.84% | 2.80% | 1.04% | | | | |
| Dec-00 | 7.84% | 5.49% | 2.35% | Dec-04 | 5.92% | | | Dec-08 | 6.52% | 2.87% | 3.65% | Dec-12 | 4.00% | 2.88% | 1.12% | | | | |
| Jan-01 | 7.80% | 5.54% | 2.26% | Jan-05 | 5.78% | | | Jan-09 | 6.39% | 3.13% | 3.26% | Jan-13 | 4.15% | 3.08% | 1.07% | | | | |
| Feb-01 | 7.74% | 5.45% | 2.29% | Feb-05 | 5.61% | | | Feb-09 | 6.30% | 3.59% | 2.71% | Feb-13 | 4.18% | 3.17% | 1.01% | | | | |
| Mar-01 | 7.68% | 5.34% | 2.34% | Mar-05 | 5.83% | | | Mar-09 | 6.42% | 3.64% | 2.78% | Mar-13 | 4.20% | 3.16% | 1.04% | | | | |
| Apr-01 | 7.94% | 5.65% | 2.29% | Apr-05 | 5.64% | | | Apr-09 | 6.48% | 3.76% | 2.72% | Apr-13 | 4.00% | 2.93% | 1.07% | | | | |
| May-01 | 7.99% | 5.78% | 2.21% | May-05 | 5.53% | | | May-09 | 6.49% | 4.23% | 2.26% | May-13 | 4.17% | 3.11% | 1.06% | | | | |
| Jun-01 | 7.85% | 5.67% | 2.18% | Jun-05 | 5.40% | | | Jun-09 | 6.20% | 4.52% | 1.68% | Jun-13 | 4.53% | 3.40% | 1.13% | | | | |
| Jul-01 | 7.78% | 5.61% | 2.17% | Jul-05 | 5.51% | | | Jul-09 | 5.97% | 4.41% | 1.56% | Jul-13 | 4.68% | 3.61% | 1.07% | | | | |
| Aug-01 | 7.59% | 5.48% | 2.11% | Aug-05 | 5.50% | | | Aug-09 | 5.71% | 4.37% | 1.34% | Aug-13 | 4.73% | 3.76% | 0.97% | | | | |
| Sep-01 | 7.75% | 5.48% | 2.27% | Sep-05 | 5.52% | | | Sep-09 | 5.53% | 4.19% | 1.34% | Sep-13 | 4.80% | 3.79% | 1.01% | | | | |
| Oct-01 | 7.63% | 5.32% | 2.31% | Oct-05 | 5.79% | | | Oct-09 | 5.55% | 4.19% | 1.36% | Oct-13 | 4.70% | 3.68% | 1.02% | | | | |
| Nov-01 | 7.57% | 5.12% | 2.45% | Nov-05 | 5.88% | | | Nov-09 | 5.64% | 4.31% | 1.33% | Nov-13 | 4.77% | 3.80% | 0.97% | | | | |
| Dec-01 | 7.83% | 5.48% | 2.35% | Dec-05 | 5.80% | | | Dec-09 | 5.79% | 4.49% | 1.30% | Dec-13 | 4.81% | 3.89% | 0.92% | | | | |
| Jan-02 | 7.66% | 5.45% | 2.21% | Jan-06 | 5.75% | | | Jan-10 | 5.77% | 4.60% | 1.17% | Jan-14 | 4.63% | 3.77% | 0.86% | | | | |
| Feb-02 | 7.54% | 5.40% | 2.14% | Feb-06 | 5.82% | 4.54% | 1.28% | Feb-10 | 5.87% | 4.62% | 1.25% | Feb-14 | 4.53% | 3.66% | 0.87% | | | | |
| Mar-02 | 7.76% | | | Mar-06 | 5.98% | 4.73% | 1.25% | Mar-10 | 5.84% | 4.64% | 1.20% | Mar-14 | 4.51% | 3.62% | 0.89% | | | | |
| Apr-02 | 7.57% | | | Apr-06 | 6.29% | 5.06% | 1.23% | Apr-10 | 5.81% | 4.69% | 1.12% | Apr-14 | 4.41% | 3.52% | 0.89% | | | | |
| May-02 | 7.52% | | | May-06 | 6.42% | 5.20% | 1.22% | May-10 | 5.50% | 4.29% | 1.21% | May-14 | 4.26% | 3.39% | 0.87% | | | | |
| Jun-02 | 7.42% | | | Jun-06 | 6.40% | 5.15% | 1.25% | Jun-10 | 5.46% | 4.13% | 1.33% | Jun-14 | 4.29% | 3.42% | 0.87% | | | | |
| Jul-02 | 7.31% | | | Jul-06 | 6.37% | 5.13% | 1.24% | Jul-10 | 5.26% | 3.99% | 1.27% | Jul-14 | 4.23% | 3.33% | 0.90% | | | | |
| Aug-02 | 7.17% | | | Aug-06 | 6.20% | 5.00% | 1.20% | Aug-10 | 5.01% | 3.80% | 1.21% | Aug-14 | 4.13% | 3.20% | 0.93% | | | | |
| Sep-02 | 7.08% | | | Sep-06 | 6.00% | 4.85% | 1.15% | Sep-10 | 5.01% | 3.77% | 1.24% | Sep-14 | 4.24% | 3.26% | 0.98% | | | | |
| Oct-02 | 7.23% | | | Oct-06 | 5.98% | 4.85% | 1.13% | Oct-10 | 5.10% | 3.87% | 1.23% | Oct-14 | 4.06% | 3.04% | 1.02% | | | | |
| Nov-02 | 7.14% | | | Nov-06 | 5.80% | 4.69% | 1.11% | Nov-10 | 5.37% | 4.19% | 1.18% | Nov-14 | 4.09% | 3.04% | 1.05% | | | | |
| Dec-02 | 7.07% | | | Dec-06 | 5.81% | 4.68% | 1.13% | Dec-10 | 5.56% | 4.42% | 1.14% | Dec-14 | 3.95% | 2.83% | 1.12% | | | | |

Common Equity Risk Premiums
Years 1926-2014

| | <u>Large Common Stocks</u> | <u>Long- Term Corp. Bonds</u> | <u>Equity Risk Premium</u> | <u>Long- Term Govt. Bonds Yields</u> |
|-----------------------------------|---|--|---|---|
| Low Interest Rates | 12.21% | 4.85% | 7.36% | 3.00% |
| Average Across All Interest Rates | 12.07% | 6.38% | 5.69% | 5.12% |
| High Interest Rates | 11.93% | 7.95% | 3.98% | 7.28% |

Source of Information: Stocks, Bonds, Bills, and Inflation (SBBI) 2015 Classic Yearbook

| Basic Series | | | |
|--------------------------------------|---------------------------|---------------------------------|---|
| Annual Total Returns (except yields) | | | |
| Year | Large Common Stocks | Long- Term Corp. Bonds | Long- Term Govt. Bonds Yields |
| 1940 | -9.78% | 3.39% | 1.94% |
| 1945 | 36.44% | 4.08% | 1.99% |
| 1941 | -11.59% | 2.73% | 2.04% |
| 1949 | 18.79% | 3.31% | 2.09% |
| 1946 | -8.07% | 1.72% | 2.12% |
| 1950 | 31.71% | 2.12% | 2.24% |
| 1939 | -0.41% | 3.97% | 2.26% |
| 1948 | 5.50% | 4.14% | 2.37% |
| 2014 | 13.69% | 17.28% | 2.40% |
| 2012 | 16.00% | 10.68% | 2.41% |
| 1947 | 5.71% | -2.34% | 2.43% |
| 1942 | 20.34% | 2.60% | 2.46% |
| 1944 | 19.75% | 4.73% | 2.46% |
| 1943 | 25.90% | 2.83% | 2.48% |
| 2011 | 2.11% | 17.95% | 2.48% |
| 1938 | 31.12% | 6.13% | 2.52% |
| 1936 | 33.92% | 6.74% | 2.55% |
| 1951 | 24.02% | -2.69% | 2.69% |
| 1954 | 52.62% | 5.39% | 2.72% |
| 1937 | -35.03% | 2.75% | 2.73% |
| 1953 | -0.99% | 3.41% | 2.74% |
| 1935 | 47.67% | 9.61% | 2.76% |
| 1952 | 18.37% | 3.52% | 2.79% |
| 1934 | -1.44% | 13.84% | 2.93% |
| 1955 | 31.56% | 0.48% | 2.95% |
| 2008 | -37.00% | 8.78% | 3.03% |
| 1932 | -8.19% | 10.82% | 3.15% |
| 1927 | 37.49% | 7.44% | 3.17% |
| 1957 | -10.78% | 8.71% | 3.23% |
| 1930 | -24.90% | 7.98% | 3.30% |
| 1933 | 53.99% | 10.38% | 3.36% |
| 1928 | 43.61% | 2.84% | 3.40% |
| 1929 | -8.42% | 3.27% | 3.40% |
| 1956 | 6.56% | -6.81% | 3.45% |
| 1926 | 11.62% | 7.37% | 3.54% |
| 2013 | 32.39% | -7.07% | 3.67% |
| 1960 | 0.47% | 9.07% | 3.80% |
| 1958 | 43.36% | -2.22% | 3.82% |
| 1962 | -8.73% | 7.95% | 3.95% |
| 1931 | -43.34% | -1.85% | 4.07% |
| 2010 | 15.06% | 12.44% | 4.14% |
| 1961 | 26.89% | 4.82% | 4.15% |
| 1963 | 22.80% | 2.19% | 4.17% |
| 1964 | 16.48% | 4.77% | 4.23% |
| 1959 | 11.96% | -0.97% | 4.47% |
| 1965 | 12.45% | -0.46% | 4.50% |
| 2007 | 5.49% | 2.60% | 4.50% |
| 1966 | -10.06% | 0.20% | 4.55% |
| 2009 | 26.46% | 3.02% | 4.58% |
| 2005 | 4.91% | 5.87% | 4.61% |
| 2002 | -22.10% | 16.33% | 4.84% |
| 2004 | 10.88% | 8.72% | 4.84% |
| 2006 | 15.79% | 3.24% | 4.91% |
| 2003 | 28.68% | 5.27% | 5.11% |
| 1998 | 28.58% | 10.76% | 5.42% |
| 1967 | 23.98% | -4.95% | 5.56% |
| 2000 | -9.10% | 12.87% | 5.58% |
| 2001 | -11.89% | 10.65% | 5.75% |
| 1971 | 14.30% | 11.01% | 5.97% |
| 1968 | 11.06% | 2.57% | 5.98% |
| 1972 | 18.99% | 7.26% | 5.99% |
| 1997 | 33.36% | 12.95% | 6.02% |
| 1995 | 37.58% | 27.20% | 6.03% |
| 1970 | 3.86% | 18.37% | 6.48% |
| 1993 | 10.08% | 13.19% | 6.54% |
| 1996 | 22.96% | 1.40% | 6.73% |
| 1999 | 21.04% | -7.45% | 6.82% |
| 1969 | -8.50% | -8.09% | 6.87% |
| 1976 | 23.93% | 18.65% | 7.21% |
| 1973 | -14.69% | 1.14% | 7.26% |
| 1992 | 7.62% | 9.39% | 7.26% |
| 1991 | 30.47% | 19.89% | 7.30% |
| 1974 | -26.47% | -3.06% | 7.60% |
| 1986 | 18.67% | 19.85% | 7.89% |
| 1994 | 1.32% | -5.76% | 7.99% |
| 1977 | -7.16% | 1.71% | 8.03% |
| 1975 | 37.23% | 14.64% | 8.05% |
| 1989 | 31.69% | 16.23% | 8.16% |
| 1990 | -3.10% | 6.78% | 8.44% |
| 1978 | 6.57% | -0.07% | 8.98% |
| 1988 | 16.61% | 10.70% | 9.19% |
| 1987 | 5.25% | -0.27% | 9.20% |
| 1985 | 31.73% | 30.09% | 9.56% |
| 1979 | 18.61% | -4.18% | 10.12% |
| 1982 | 21.55% | 42.56% | 10.95% |
| 1984 | 6.27% | 16.86% | 11.70% |
| 1983 | 22.56% | 6.26% | 11.97% |
| 1980 | 32.50% | -2.76% | 11.99% |
| 1981 | -4.92% | -1.24% | 13.34% |

**Yields for Treasury Constant Maturities
Yearly for 2010-2014
and the Twelve Months Ended August 2015**

| <u>Years</u> | <u>1-Year</u> | <u>2-Year</u> | <u>3-Year</u> | <u>5-Year</u> | <u>7-Year</u> | <u>10-Year</u> | <u>20-Year</u> | <u>30-Year</u> |
|---------------------------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|
| 2010 | 0.32% | 0.70% | 1.11% | 1.93% | 2.62% | 3.21% | 4.03% | 4.25% |
| 2011 | 0.18% | 0.45% | 0.75% | 1.52% | 2.16% | 2.79% | 3.62% | 3.91% |
| 2012 | 0.18% | 0.28% | 0.38% | 0.76% | 1.22% | 1.80% | 2.54% | 2.92% |
| 2013 | 0.13% | 0.31% | 0.54% | 1.17% | 1.74% | 2.35% | 3.12% | 3.45% |
| 2014 | 0.12% | 0.46% | 0.90% | 1.64% | 2.14% | 2.54% | 3.07% | 3.34% |
| Five-Year Average | <u>0.19%</u> | <u>0.44%</u> | <u>0.74%</u> | <u>1.40%</u> | <u>1.98%</u> | <u>2.54%</u> | <u>3.28%</u> | <u>3.57%</u> |
| <u>Months</u> | | | | | | | | |
| Sep-14 | 0.11% | 0.57% | 1.05% | 1.77% | 2.22% | 2.53% | 3.01% | 3.26% |
| Oct-14 | 0.10% | 0.45% | 0.88% | 1.55% | 1.98% | 2.30% | 2.77% | 3.04% |
| Nov-14 | 0.13% | 0.53% | 0.96% | 1.62% | 2.03% | 2.33% | 2.76% | 3.04% |
| Dec-14 | 0.21% | 0.64% | 1.06% | 1.64% | 1.98% | 2.21% | 2.55% | 2.83% |
| Jan-15 | 0.20% | 0.55% | 0.90% | 1.37% | 1.67% | 1.88% | 2.20% | 2.46% |
| Feb-15 | 0.22% | 0.62% | 0.99% | 1.47% | 1.79% | 1.98% | 2.34% | 2.57% |
| Mar-15 | 0.25% | 0.64% | 1.02% | 1.52% | 1.84% | 2.04% | 2.41% | 2.63% |
| Apr-15 | 0.23% | 0.54% | 0.87% | 1.35% | 1.69% | 1.94% | 2.33% | 2.59% |
| May-15 | 0.24% | 0.61% | 0.98% | 1.54% | 1.93% | 2.20% | 2.69% | 2.96% |
| Jun-15 | 0.28% | 0.69% | 1.07% | 1.68% | 2.10% | 2.36% | 2.85% | 3.11% |
| Jul-15 | 0.30% | 0.67% | 1.03% | 1.63% | 2.04% | 2.32% | 2.77% | 3.07% |
| Aug-15 | 0.38% | 0.70% | 1.03% | 1.54% | 1.91% | 2.17% | 2.55% | 2.86% |
| Twelve-Month Average | <u>0.22%</u> | <u>0.60%</u> | <u>0.99%</u> | <u>1.56%</u> | <u>1.93%</u> | <u>2.19%</u> | <u>2.60%</u> | <u>2.87%</u> |
| Six-Month Average | <u>0.28%</u> | <u>0.64%</u> | <u>1.00%</u> | <u>1.54%</u> | <u>1.92%</u> | <u>2.17%</u> | <u>2.60%</u> | <u>2.87%</u> |
| Three-Month Average | <u>0.32%</u> | <u>0.69%</u> | <u>1.04%</u> | <u>1.62%</u> | <u>2.02%</u> | <u>2.28%</u> | <u>2.72%</u> | <u>3.01%</u> |

Source: Federal Reserve statistical release H.15

Measures of the Risk-Free Rate & Corporate Bond Yields

The forecast of Treasury and Corporate yields
per the consensus of nearly 50 economists
reported in the Blue Chip Financial Forecasts dated September 1, 2015

| Year | Quarter | Treasury | | | | | Corporate | |
|------|---------|----------------|----------------|----------------|-----------------|-----------------|-------------|-------------|
| | | 1-Year Bill | 2-Year Note | 5-Year Note | 10-Year Note | 30-Year Bond | Aaa Bond | Baa Bond |
| 2015 | Third | 0.4% | 0.7% | 1.6% | 2.3% | 3.0% | 4.1% | 5.1% |
| 2015 | Fourth | 0.6% | 1.0% | 1.8% | 2.5% | 3.1% | 4.2% | 5.2% |
| 2016 | First | 0.9% | 1.3% | 2.1% | 2.6% | 3.3% | 4.4% | 5.4% |
| 2016 | Second | 1.2% | 1.6% | 2.3% | 2.8% | 3.5% | 4.6% | 5.5% |
| 2016 | Third | 1.5% | 1.9% | 2.5% | 3.0% | 3.7% | 4.7% | 5.7% |
| 2016 | Fourth | 1.8% | 2.1% | 2.7% | 3.2% | 3.8% | 4.9% | 5.8% |

Measures of the Market Premium

| Value Line Return | | | |
|-------------------|-------------------|-------------------------------------|---------------------------|
| As of: | Dividend Yield | Median Appreciation Potential | Median Total Return |
| 11-Sep-15 | 2.3% | + 10.67% | = 12.97% |

| DCF Result for the S&P 500 Composite | | | | |
|--------------------------------------|------------|---|-------|---------|
| D/P | (1+.5g) | + | g | = k |
| 2.17% | (1.0354) | + | 7.07% | = 9.32% |

| | | | | | |
|--------|--------------|-----|--------------|---|---------|
| where: | Price (P) | at | 31-Aug-15 | = | 1972.18 |
| | Dividend (D) | for | 2nd Qtr. '15 | = | 10.70 |
| | Dividend (D) | | annualized | = | 42.80 |
| | Growth (g) | by | First Call | = | 7.07% |

| Summary | | | |
|--------------------------------|--------|-------|--------|
| Value Line | | | 12.97% |
| S&P 500 | | | 9.32% |
| Average | | | 11.15% |
| Risk-free Rate of Return (Rf) | | | 3.75% |
| Forecast Market Premium | | | 7.40% |
| Historical Market Premium (Rm) | | (Rf) | |
| 1926-2014 Arith. mean | 12.14% | 4.06% | 8.08% |
| Average - Forecast/Historical | | | 7.74% |

This phenomenon can also be viewed graphically, as depicted in the Graph 7-2. The security market line is based on the pure CAPM without adjusting for the size premium. Based on the risk (or beta) of a security, the expected return should fluctuate along the security market line. However, the expected returns for the smaller deciles of the NYSE/AMEX/NASDAQ lie above the line, indicating that these deciles have had returns in excess of those appropriate for their systematic risk.

Table 7-6: Size-Decile Portfolios of the NYSE/AMEX/NASDAQ
Long-Term Returns in Excess of CAPM

| Decile | Beta* | Arithmetic Mean Return (%) | Actual Return in Excess of Riskless Rate** (%) | CAPM Return in Excess of Riskless Rate* (%) | Size Premium (Return in Excess of CAPM) (%) |
|-----------------|-------|----------------------------|--|---|---|
| 1 | 0.91 | 11.15 | 6.08 | 6.40 | -0.32 |
| 2 | 1.04 | 12.96 | 7.89 | 7.24 | 0.65 |
| 3 | 1.10 | 13.71 | 8.64 | 7.70 | 0.94 |
| 4 | 1.13 | 14.01 | 8.93 | 7.88 | 1.05 |
| 5 | 1.16 | 14.84 | 9.76 | 8.11 | 1.65 |
| 6 | 1.19 | 15.01 | 9.94 | 8.31 | 1.63 |
| 7 | 1.24 | 15.53 | 10.46 | 8.69 | 1.77 |
| 8 | 1.30 | 16.35 | 11.27 | 9.10 | 2.18 |
| 9 | 1.35 | 17.13 | 12.06 | 9.42 | 2.64 |
| 10 | 1.40 | 20.62 | 15.54 | 9.82 | 5.72 |
| Mid-Cap, 3-5 | 1.12 | 14.00 | 8.93 | 7.83 | 1.10 |
| Low-Cap, 6-8 | 1.23 | 15.44 | 10.36 | 8.59 | 1.77 |
| Micro-Cap, 9-10 | 1.36 | 18.26 | 13.18 | 9.49 | 3.69 |

Data from 1926–2014.

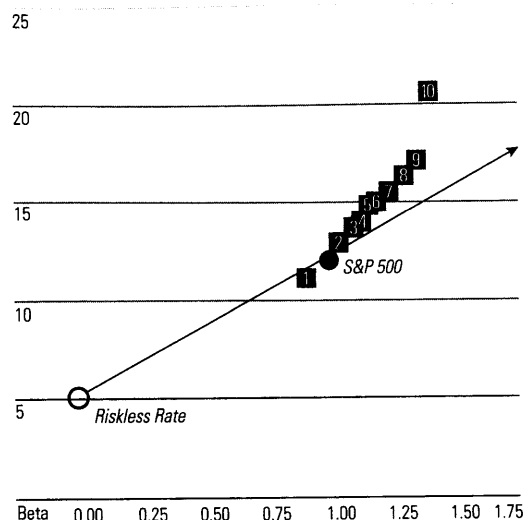
*Betas are estimated from monthly returns in excess of the 30-day U.S. Treasury bill total return, January 1926–December 2014.

**Historical riskless rate measured by the 89-year arithmetic mean income return component of 20-year government bonds (5.07%).

[†]Calculated in the context of the CAPM by multiplying the equity risk premium by beta. The equity risk premium is estimated by the arithmetic mean total return of the S&P 500 (12.07%) minus the arithmetic mean income return component of 20-year government bonds (5.07%) from 1926–2014.

Source: Morningstar and CRSP. Calculated (or Derived) based on data from CRSP US Stock Database and CRSP US Indices Database ©2015 Center for Research in Security Prices (CRSP®), The University of Chicago Booth School of Business. Used with permission.

Graph 7-2: Security Market Line Versus Size-Decile Portfolios of the NYSE/AMEX/NASDAQ



Data from 1926–2014.

Serial Correlation in Small-Cap Stock Returns

In four of the last 10 years, large-capitalization stocks (deciles 1-2 of NYSE/AMEX/NASDAQ) have outperformed small-capitalization stocks (deciles 9-10). This has led some market observers to speculate that there is no size premium. But statistical evidence suggests that periods of underperformance should be expected. For instance, large-cap stocks have outperformed small-cap stocks in nearly half of the years since 1926. It should be noted, however, that large-cap stocks' average historical outperformance has been less than the average historical outperformance of small-cap stocks.

History tells us that small companies are riskier than large companies. Table 7-1 [see page 100] shows the standard deviation (a measure of risk) for each decile of the NYSE/AMEX/NASDAQ. As one moves from larger to smaller deciles, the standard deviation of return grows. Investors are compensated for taking on this additional risk by the higher returns provided by small companies. It is important to note, however, that the risk/return profile is over the long term. If small companies did not provide higher long-term returns, investors would be more inclined to invest in the less-risky stocks of large companies.

Comparable Earnings Approach

Using Non-Utility Companies with

Timeliness of 2, 3 & 4; Safety Rank of 1, 2 & 3; Financial Strength of B++, A & A+;

Price Stability of 85 to 100; Betas of .65 to .85; and Technical Rank of 3, 4 & 5

| Company | Industry | Timeliness Rank | Safety Rank | Financial Strength | Price Stability | Beta | Technical Rank |
|-----------------------|----------|--------------------|----------------|-----------------------|--------------------|------|-------------------|
| Airgas Inc. | CHEMSPEC | 3 | 1 | A | 90 | 0.85 | 3 |
| Alleghany Corp. | INSPRPTY | 3 | 1 | A | 100 | 0.75 | 3 |
| Bard (C.R.) | MEDICINV | 2 | 1 | A+ | 90 | 0.80 | 4 |
| Berkley (W.R.) | INSPRPTY | 3 | 1 | A | 100 | 0.75 | 3 |
| Bio-Techne Corp. | BIOTECH | 4 | 1 | A+ | 90 | 0.80 | 4 |
| Brown-Forman 'B' | BEVERAGE | 2 | 1 | A+ | 95 | 0.85 | 3 |
| Clorox Co. | HOUSEPRD | 3 | 2 | B++ | 100 | 0.65 | 4 |
| Copart Inc. | RETAUTO | 3 | 2 | A | 85 | 0.85 | 3 |
| DaVita HealthCare | MEDSERV | 3 | 2 | B++ | 85 | 0.85 | 3 |
| Dollar Tree Inc. | RETAIL | 2 | 2 | A | 85 | 0.65 | 3 |
| Dr Pepper Snapple | BEVERAGE | 2 | 2 | A | 95 | 0.65 | 4 |
| Ecolab Inc. | CHEMSPEC | 2 | 1 | A | 95 | 0.85 | 3 |
| Erie Indemnity | INSPRPTY | 4 | 2 | B++ | 95 | 0.75 | 3 |
| Gallagher (Arthur J.) | FINSERV | 3 | 1 | A | 95 | 0.85 | 3 |
| Gen'l Mills | FOODPROC | 3 | 1 | A+ | 100 | 0.65 | 3 |
| Hanover Insurance | INSPRPTY | 3 | 2 | B++ | 90 | 0.85 | 4 |
| Hormel Foods | FOODPROC | 2 | 1 | A | 95 | 0.75 | 3 |
| Kellogg | FOODPROC | 4 | 1 | A | 100 | 0.65 | 5 |
| Kroger Co. | GROCERY | 2 | 2 | A | 90 | 0.75 | 4 |
| Laboratory Corp. | MEDSERV | 3 | 1 | A | 90 | 0.80 | 3 |
| Lancaster Colony | HOUSEPRD | 3 | 1 | A+ | 90 | 0.80 | 3 |
| Lilly (Eli) | DRUG | 4 | 1 | A+ | 95 | 0.80 | 3 |
| Markel Corp. | INSPRPTY | 2 | 1 | A | 100 | 0.70 | 4 |
| Marsh & McLennan | FINSERV | 2 | 2 | A | 95 | 0.85 | 3 |
| McCormick & Co. | FOODPROC | 3 | 1 | A+ | 100 | 0.75 | 3 |
| Motorola Solutions | TELEQUIP | 3 | 1 | A | 90 | 0.85 | 5 |
| Paychex Inc. | ITSERV | 3 | 1 | A | 95 | 0.85 | 3 |
| Philip Morris Int'l | TOBACCO | 4 | 2 | B++ | 95 | 0.80 | 5 |
| Progressive (Ohio) | INSPRPTY | 3 | 2 | B++ | 95 | 0.85 | 4 |
| RLI Corp. | INSPRPTY | 3 | 2 | B++ | 85 | 0.85 | 4 |
| Republic Services | ENVIRONM | 3 | 2 | B++ | 95 | 0.80 | 4 |
| Synopsys Inc. | SOFTWARE | 2 | 1 | A | 90 | 0.85 | 3 |
| Sysco Corp. | GROCERY | 4 | 1 | A+ | 100 | 0.75 | 3 |
| Verisk Analytics | INFOSER | 3 | 2 | B++ | 95 | 0.70 | 3 |
| Waste Management | ENVIRONM | 3 | 1 | A | 95 | 0.85 | 4 |
| Watsco Inc. | BUILDSUP | 2 | 2 | A | 85 | 0.85 | 3 |
| West Pharmac. Svcs. | MEDICNON | 3 | 2 | B++ | 85 | 0.85 | 3 |
| Average | | 3 | 1 | A | 93 | 0.79 | 3 |
| Gas Group | Average | 3 | 2 | A | 97 | 0.78 | 4 |

Source of Information: Value Line Investment Survey for Windows, August 2014

Comparable Earnings Approach
Five -Year Average Historical Earned Returns
for Years 2010-2014 and
Projected 3-5 Year Returns

| Company | 2010 | 2011 | 2012 | 2013 | 2014 | Average | Projected 2018-20 |
|--|-------|-------|-------|-------|-------|---------|----------------------|
| Airgas Inc. | 14.4% | 17.9% | 22.2% | 19.1% | 17.1% | 18.1% | 22.5% |
| Alleghany Corp. | 4.6% | 4.9% | 11.0% | 7.1% | 5.8% | 6.7% | 6.5% |
| Bard (C.R.) | 32.8% | 31.9% | 29.4% | 22.7% | 36.1% | 30.6% | 22.0% |
| Berkley (W.R.) | 11.4% | 7.7% | 8.8% | 9.7% | 10.6% | 9.6% | 10.0% |
| Bio-Techne Corp. | 21.9% | 19.2% | 16.7% | 15.3% | 14.0% | 17.4% | 10.5% |
| Brown-Forman 'B' | 25.4% | 24.8% | 35.4% | 32.4% | 35.9% | 30.8% | 29.0% |
| Clorox Co. | NMF | - | NMF | NMF | NMF | - | NMF |
| Copart Inc. | 13.9% | 30.0% | 32.5% | 23.6% | 19.9% | 24.0% | 15.5% |
| DaVita HealthCare | 22.8% | 22.5% | 16.3% | 18.4% | 15.2% | 19.0% | 17.0% |
| Dollar Tree Inc. | 27.2% | 36.3% | 34.9% | 51.0% | 33.6% | 36.6% | 22.0% |
| Dr Pepper Snapple | 23.7% | 26.8% | 26.9% | 26.5% | 30.6% | 26.9% | 19.0% |
| Ecolab Inc. | 24.9% | 10.5% | 14.7% | 14.7% | 17.4% | 16.4% | 15.5% |
| Erie Indemnity | 17.8% | 21.4% | 24.9% | 22.2% | 24.0% | 22.1% | 29.0% |
| Gallagher (Arthur J.) | 14.8% | 11.9% | 11.8% | 12.9% | 9.4% | 12.2% | 11.5% |
| Gen'l Mills | 29.1% | 26.0% | 26.6% | 26.8% | 27.9% | 27.3% | 32.5% |
| Hanover Insurance | 6.2% | 1.3% | 1.8% | 8.8% | 8.2% | 5.3% | 9.5% |
| Hormel Foods | 17.0% | 17.8% | 17.7% | 15.9% | 16.7% | 17.0% | 17.5% |
| Kellogg | 57.8% | 69.9% | 53.6% | 38.9% | 50.1% | 54.1% | 37.0% |
| Kroger Co. | 21.1% | 30.0% | 33.8% | 27.8% | 32.6% | 29.1% | 23.0% |
| Laboratory Corp. | 23.7% | 25.9% | 24.4% | 25.6% | 20.4% | 24.0% | 16.0% |
| Lancaster Colony | 23.7% | 20.6% | 17.0% | 21.8% | 19.1% | 20.4% | 18.5% |
| Lilly (Eli) | 42.2% | 36.3% | 25.6% | 25.5% | 19.4% | 29.8% | 26.0% |
| Markel Corp. | 7.7% | 3.7% | 6.5% | 3.5% | 3.6% | 5.0% | 5.5% |
| Marsh & McLennan | 8.6% | 16.2% | 17.8% | 16.9% | 20.2% | 15.9% | 20.5% |
| McCormick & Co. | 24.4% | 23.1% | 24.0% | 21.5% | 24.4% | 23.5% | 22.5% |
| Motorola Solutions | 11.1% | 17.0% | 29.2% | 35.0% | 23.2% | 23.1% | NMF |
| Paychex Inc. | 34.0% | 34.4% | 34.2% | 32.1% | 35.3% | 34.0% | 44.5% |
| Philip Morris Int'l | NMF | NMF | NMF | NMF | NMF | - | NMF |
| Progressive (Ohio) | 16.6% | 16.5% | 11.7% | 14.8% | 16.5% | 15.2% | 18.0% |
| RLI Corp. | 13.9% | 14.7% | 10.9% | 13.5% | 13.6% | 13.3% | 12.0% |
| Republic Services | 8.4% | 9.7% | 8.6% | 9.0% | 9.0% | 8.9% | 10.0% |
| Synopsys Inc. | 9.1% | 10.2% | 12.6% | 13.7% | 13.1% | 11.7% | 15.0% |
| Sysco Corp. | 30.9% | 24.5% | 23.9% | 19.1% | 17.7% | 23.2% | 23.5% |
| Verisk Analytics | - | - | NMF | NMF | NMF | - | 19.0% |
| Waste Management | 16.2% | 16.6% | 15.2% | 17.7% | 19.7% | 17.1% | 24.0% |
| Watsco Inc. | 10.6% | 11.3% | 13.8% | 15.2% | 17.1% | 13.6% | 19.0% |
| West Pharmac. Svcs. | 11.6% | 12.5% | 13.3% | 12.4% | 13.3% | 12.6% | 15.5% |
| Average | | | | | | 20.4% | 19.4% |
| Median | | | | | | 18.6% | 18.8% |
| Average (excluding companies with values >20%) | | | | | | 12.3% | 13.3% |

Comparable Earnings Approach

Screening Parameters

Timeliness Rank

The rank for a stock's probable relative market performance in the year ahead. Stocks ranked 1 (Highest) or 2 (Above Average) are likely to outpace the year-ahead market. Those ranked 4 (Below Average) or 5 (Lowest) are not expected to outperform most stocks over the next 12 months. Stocks ranked 3 (Average) will probably advance or decline with the market in the year ahead. Investors should try to limit purchases to stocks ranked 1 (Highest) or 2 (Above Average) for Timeliness.

Safety Rank

A measure of potential risk associated with individual common stocks rather than large diversified portfolios (for which Beta is good risk measure). Safety is based on the stability of price, which includes sensitivity to the market (see Beta) as well as the stock's inherent volatility, adjusted for trend and other factors including company size, the penetration of its markets, product market volatility, the degree of financial leverage, the earnings quality, and the overall condition of the balance sheet. Safety Ranks range from 1 (Highest) to 5 (Lowest). Conservative investors should try to limit purchases to equities ranked 1 (Highest) or 2 (Above Average) for Safety.

Financial Strength

The financial strength of each of the more than 1,600 companies in the VS II data base is rated relative to all the others. The ratings range from A++ to C in nine steps. (For screening purposes, think of an A rating as "greater than" a B). Companies that have the best relative financial strength are given an A++ rating, indicating ability to weather hard times better than the vast majority of other companies. Those who don't quite merit the top rating are given an A+ grade, and so on. A rating as low as C++ is considered satisfactory. A rating of C+ is well below average, and C is reserved for companies with very serious financial problems. The ratings are based upon a computer analysis of a number of key variables that determine (a) financial leverage, (b) business risk, and (c) company size, plus the judgment of Value Line's analysts and senior editors regarding factors that cannot be quantified across-the-board for companies. The primary variables that are indexed and studied include equity coverage of debt, equity coverage of intangibles, "quick ratio", accounting methods, variability of return, fixed charge coverage, stock price stability, and company size.

Price Stability Index

An index based upon a ranking of the weekly percent changes in the price of the stock over the last five years. The lower the standard deviation of the changes, the more stable the stock. Stocks ranking in the top 5% (lowest standard deviations) carry a Price Stability Index of 100; the next 5%, 95; and so on down to 5. One standard deviation is the range around the average weekly percent change in the price that encompasses about two thirds of all the weekly percent change figures over the last five years. When the range is wide, the standard deviation is high and the stock's Price Stability Index is low.

Beta

A measure of the sensitivity of the stock's price to overall fluctuations in the New York Stock Exchange Composite Average. A Beta of 1.50 indicates that a stock tends to rise (or fall) 50% more than the New York Stock Exchange Composite Average. Use Beta to measure the stock market risk inherent in any diversified portfolio of, say, 15 or more companies. Otherwise, use the Safety Rank, which measures total risk inherent in an equity, including that portion attributable to market fluctuations. Beta is derived from a least squares regression analysis between weekly percent changes in the price of a stock and weekly percent changes in the NYSE Average over a period of five years. In the case of shorter price histories, a smaller time period is used, but two years is the minimum. The Betas are periodically adjusted for their long-term tendency to regress toward 1.00.

Technical Rank

A prediction of relative price movement, primarily over the next three to six months. It is a function of price action relative to all stocks followed by Value Line. Stocks ranked 1 (Highest) or 2 (Above Average) are likely to outpace the market. Those ranked 4 (Below Average) or 5 (Lowest) are not expected to outperform most stocks over the next six months. Stocks ranked 3 (Average) will probably advance or decline with the market. Investors should use the Technical and Timeliness Ranks as complements to one another.