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September 1, 2016

E-PORTAL FILING

Ms. Carlotta Stauffer, Clerk Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

Re: New Filing – Joint Petition for Approval of GRIP Cost Recovery Factors by Florida Public Utilities Company, Florida Public Utilities Company-Fort Meade, and Florida Division of Chesapeake Utilities Corporation.

Dear Ms. Stauffer:

Attached for filing, please find the Joint Petition for Approval of GRIP Cost Recovery Factors by Florida Public Utilities Company, Florida Public Utilities Company-Fort Meade, and Florida Division of Chesapeake Utilities Corporation, along with the Direct Testimony and Exhibit MC-1 of Mr. Mike Cassel. Also included with this filing are the following revised tariff pages:

CFG Second Revised Sheet No. 105.1 CFG Third Revised Sheet No. 105.2 FPUC NG Tenth Revised Sheet No. 35.4 FPUC-FORT MEADE Second Revised Sheet No. 33 FPUC-FORT MEADE Original Sheet No. 64

Thank you for your assistance with this filing. As always, please don't hesitate to let me know if you have any questions whatsoever.

Kind regards,

Beth Keating

Gunster, Yoakley & Stewart, P.A. 215 South Monroe St., Suite 601

Tallahassee, FL 32301

(850) 521-1706

MEK

cc:/(Certificate of Service)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Joint Petition for Approval of Gas DOCKET NO. Reliability Infrastructure Program (GRIP) True-Up by Florida Public Utilities Company | DATED: September 1, 2016 and the Florida Division of Chesapeake Utilities Corporation and Florida Public Utilities Company-Fort Meade

JOINT PETITION FOR APPROVAL OF GRIP COST RECOVERY FACTORS BY FLORIDA PUBLIC UTILITIES COMPANY, FLORIDA PUBLIC UTILITIES COMPANY-FORT MEADE, AND THE FLORIDA DIVISION OF CHESAPEAKE UTILITIES CORPORATION

Florida Public Utilities Company, Florida Public Utilities Company-Fort Meade ("Fort Meade") (herein jointly "FPUC"), and the Florida Division of Chesapeake Utilities Corporation ("CFG")(also referred to herein individually as "Company" and jointly as "Companies"), by and through their undersigned counsel, hereby file this Petition, pursuant to Section 366.06, Florida Statutes, and Order No. PSC-12-0490-TRF-GU, seeking approval from the Florida Public Service Commission ("FPSC" or "Commission") of FPUC's and CFG's GRIP cost recovery factors for the period January 2017 through December 2017. In support of this request, the Companies hereby state:

1) FPUC is a natural gas utility subject to the Commission's jurisdiction under Chapter 366, Florida Statutes. ¹ Its principal business address is:

Florida Public Utilities Company 1750 S 14th Street, Suite 200 Fernandina Beach FL 32034

Florida Public Utilities Company - Fort Meade is a division of FPUC with its principal business address being the same as FPUC.

2) CFG is also a natural gas utility subject to the Commission's jurisdiction under Chapter 366, Florida Statutes. Its principal business address is:

¹ FPUC's Indiantown Division does not participate in a GRIP program.

Florida Division of Chesapeake Utilities Corporation 1750 S 14th Street, Suite 200 Fernandina Beach FL 32034

3) The name and mailing address of the persons authorized to receive notices are:

Beth Keating, Esq. Gunster, Yoakley & Stewart, P.A. 215 South Monroe Street, Suite 601 Tallahassee, Florida 32301-1839 (850) 521-1706

Mike Cassel
Director, Regulatory and Governmental Affairs
Florida Public Utilities Company/Chesapeake
1750 S 14th Street, Suite 200
Fernandina Beach FL 32034
mcassel@fpuc.com

- 4) The Commission is vested with jurisdiction in this matter in accordance with Sections 366.04, 366.041, 366.05, and 366.06, Florida Statutes, pursuant to which the Commission is authorized to establish rates and charges for public utilities, including the relief requested herein, and to consider, among other things, the adequacy of facilities, as well as the utility's ability to improve such facilities. Likewise, in accordance with Section 368.05(2), Florida Statutes, the Commission has the authority to require improvements to natural gas distribution systems as may be necessary to promote the protection of the public.
- 5) Consistent with the requirements of Order No. PSC-12-0490-TRF-GU, issued September 24, 2012, the Companies have included with this filing Schedules A-D, which support the Companies' calculations of the yearly GRIP surcharge factors for the calendar year 2017.
- 6) The Companies are also submitting, contemporaneously with this Petition, the Direct Testimony and Exhibit MC-1, which includes the referenced schedules, of Mr. Mike Cassel in support of the Companies' request for approval of the requested factors. Therein, Mr. Cassel explains that certain projects in high consequence areas, namely within cities and larger municipalities, continue to be on an accelerated track. The accelerated status of these projects has caused an increase in GRIP costs, while these projects also often incur

additional costs associated with various construction requirements imposed by each municipality. As noted by Mr. Cassel, the Company anticipates that, as the projects in these high consequence areas are completed and the focus shifts to GRIP activity in other, less populated areas, the overall costs associated with GRIP will begin to decline.

- 7) As reflected on MC-1, the final GRIP true-up amount for the period January 2015 through December 2015 was an under-recovery of \$2,967,684 for FPUC and an under-recovery of \$125,419 for CHPK. Fort Meade did not have GRIP costs in 2015.
- The Company projects total GRIP revenue requirements \$10,342,631 for FPUC, \$2,877,498 for CHPK, and \$45,649 for Ft. Meade for the period January 2017 through December 2017. The projected net true-up is an under–recovery of \$3,887,361 for FPUC, \$312,797 for CHPK, and \$4,210 for Ft. Meade. After adding the projected GRIP revenue requirement to the (over/under) recovery amount, a total of \$14,229,992 for FPUC, \$3,190,295 for CHPK, and \$49,859 for Ft. Meade remains to be recovered during the period January 1, 2017 through December 31, 2017. After adding the projected revenue requirements for the programs and the true-up amounts then dividing this total among the Companies' rate classes, the following are the GRIP Cost Recovery factors for which the Companies seek approval in this petition:

CFG

<u> </u>			
	GRIP		
RATE	\mathbf{F}_{I}	ACTORS	
CLASS	PE	R THERM	
FTS-A	\$	0.45319	
FTS-B	\$	0.15225	
FTS-1	\$	0.10371	
FTS-2	\$	0.11170	

FTS-2.1	\$	0.11406
FTS-3	\$	004527
FTS-3.1	\$	0.06029
FTS-4	\$	0.07233
FTS-5	\$	0.07490
FTS-6	\$	0.05947
FTS-7	\$	0.08142
FTS-8	\$	0.06465
FTS-9	\$	0.14596
FTS-10	\$	0.09318
FTS-11	\$	0.05475
FTS-12	\$	0.03741
FTS-13	N/	A

PE	R THERM	5
\$	2 93	
Þ	1,/1	
\$	1.70	
\$	6.68	
\$	13.09	
\$	15.66	
\$	36.01	
	PE Ra \$ \$ \$ \$ \$ \$	\$ 1.71 \$ 1.70 \$ 6.68 \$ 13.09 \$ 15.66

FPUC

1100	
RATE	GRIP FACTORS
SCHEDULE	PER THERM
RESIDENTIAL	\$0.34225
COMMERCIAL SMALL (General Service 1 & 2 & GS 1 & 2 Transportation)	\$0.23903
COMM. LRG VOLUME (Large Vol & LV Transportation)	\$0.12689
INTERRUPTIBLE SERVICE (Int Service & IS Transportation)	\$0.11461
GENERAL LIGHTING SERVICE	\$0.49951
Rate Schedule NGV	\$0.23903
Rate Schedule NGVTS	\$0.23903

Fort Meade

RATE SCHEDULE	<u>FACTORS</u> <u>PER THERM</u>
RESIDENTIAL	\$0.36931
COMMERCIAL SMALL (General Service & GS Transportation)	\$0.11672
COMM. LRG VOLUME (Large Vol & LV Transportation)	\$0.00000
INTERRUPTIBLE SERVICE (Int Service & IS Transportation)	\$0.00000
GENERAL LIGHTING SERVICE	\$0.00000

9) The Companies attest that these factors have been calculated correctly and

consistent with Commission requirements, but utilizing the cost allocation adjustment proposed

herein. Thus, the Companies ask that the Commission approve the proposed factors as set forth

herein.

10) The Companies acknowledge that the GRIP surcharge impact for Fort Meade

could result in a degree of rate shock for customers on that system given that, to date, they have

not been subject to any GRIP surcharge. Thus, while the Companies have calculated the GRIP

surcharge proposed herein consistent with the methodology approved by the Commission in

Order No. PSC-12-0490-TRF-GU and likewise consistent with the Commission's approval in

Docket No. 150191-GU of the GRIP program for Fort Meade, the Companies further offer that a

gradual, "phase-in" approach to implementation of the surcharge would be a workable solution

should the Commission deem such an approach necessary and appropriate.

11) Attached to this Petition as Attachment A are proposed tariff pages, in clean and

legislative format, reflecting the GRIP factors set forth herein.

WHEREFORE, FPUC, FPUC-Fort Meade, and CFG respectfully request that the

Commission approve the proposed GRIP cost recovery factors to be effective for all meter

readings for the period January 2017 through December 2017.

RESPECTFULLY SUBMITTED this 1st day of September, 2016.

Beth Keating

Gunster, Yoakley & Stewart, P.A.

Teda

215 South Monroe St., Suite 601

Tallahassee, FL 32301

(850) 521-1706

Attorneys for Florida Public Utilities

Company and the Florida Division

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been served upon the following by Electronic Mail this 1st day of September, 2016.

Jennifer Crawford	J.R. Kelly/P. Christensen
Florida Public Service Commission	Office of Public Counsel
2540 Shumard Oak Boulevard	c/o The Florida Legislature
Tallahassee, FL 32399-0850	111 W. Madison Street, Room 812
jcrawfor@psc.state.fl.us	Tallahassee, FL 32399-1400
	Kelly.JR@leg.state.fl.us

By:

Beth Keating

Gunster, Yoakley & Stewart, P.A. 215 South Monroe St., Suite 601

Tallahassee, FL 32301

(850) 521-1706

ATTACHMENT A

Revised Tariff Sheets (clean/legislative)

CFG Second Revised Sheet No. 105.1 CFG Third Revised Sheet No. 105.2 FPUC NG Tenth Revised Sheet No. 35.4 FPUC-FORT MEADE Second Revised Sheet No. 33 FPUC-FORT MEADE Original Sheet No. 64

BILLING ADJUSTMENTS

(Continued from Sheet No. 35.3)

Gas Reliability Infrastructure Program (GRIP)

Applicability

The bill for gas or transportation service supplied to a Customer in any Billing Period shall be adjusted as follows:

The GRIP factors for the period from the first billing cycle for January 2017 2015 through the last billing cycle for December 2017 2015 are as follows:

Rate Class	Rates Per Therm
Rate Schedule RS	\$0. <u>34225_10516</u>
Rate Schedule GS-1	\$0. <u>23903</u> 08457
Rate Schedule GS-2	\$0. <u>23903</u> 084 57
Rate Schedule GSTS-1	\$0. <u>23903_</u> 084 57
Rate Schedule GSTS-2	\$0. <u>23903</u> 08457
Rate Schedule LVS	\$0. <u>12689</u> 03678
Rate Schedule LVTS	\$0. <u>12689</u> 03678
Rate Schedule IS	\$0. <u>11461_</u> 03820
Rate Schedule ITS	\$0. <u>11461_</u> 03820
Rate Schedule GLS	\$ 0. <u>49951</u> 13288
Rate Schedule GLSTS	\$0. <u>49951_</u> 4 3288
Rate Schedule NGV	\$0 . <u>23903</u> _00000
Rate Schedule NGVTS	\$0. 23903_00000

(Continued to Sheet No. 35.5)

BILLING ADJUSTMENTS

(Continued from Sheet No. 35.3)

Gas Reliability Infrastructure Program (GRIP)

Applicability

The bill for gas or transportation service supplied to a Customer in any Billing Period shall be adjusted as follows:

The GRIP factors for the period from the first billing cycle for January 2017 through the last billing cycle for December 2017 are as follows:

Rate Class	Rates Per Therm
Rate Schedule RS	\$0.34225
Rate Schedule GS-1	\$0.23903
Rate Schedule GS-2	\$0.23903
Rate Schedule GSTS-1	\$0.23903
Rate Schedule GSTS-2	\$0.23903
Rate Schedule LVS	\$0.12689
Rate Schedule LVTS	\$0.12689
Rate Schedule IS	\$0.11461
Rate Schedule ITS	\$0.11461
Rate Schedule GLS	\$0.49951
Rate Schedule GLSTS	\$0.49951
Rate Schedule NGV	\$0.23903
Rate Schedule NGVTS	\$0.23903

(Continued to Sheet No. 35.5)

RATE SCHEDULES MONTHLY RATE ADJUSTMENTS

Rate Schedule MRA

7. GAS REPLACEMENT INFRASTRUCTURE PROGRAM (GR1P):

Applicability:

All Customers receiving Transportation Service from the Company and are assigned to or have selected rate schedules FTS-A, FTS-B, FTS-1, FTS-2, FTS-2.1, FTS-3, FTS-3.1, FTS-4, FTS-5, FTS-6, FTS-7, FTS-8, FTS-9, FTS-10, FTS-11, FTS-12, and FTS-13.

The Usage Rate for Transportation Service to each applicable rate classification shall be adjusted by the following recovery factors. The recovery factors for all meters read for the period January 1, 2017 2016 through December 31, 2017 2016 for each rate classification are as follows:

Rate Schedule	Classification of Service	Rate per therm
Para A	z 120 d	ው <u>ስ ለ</u> ደን10 ንደንበረ
FTS A	< 130 therms	\$0.45319 35206
FTS-B	> 130 therms up to 250 therms	\$0. <u>15225</u> 12205
FTS-1	> 0 up to 500 therms	\$0. <u>10371</u> 08568
FTS-2	> 500 therms up to 1,000 therms	\$0. <u>11170</u> 08486
FTS-2.1	> 1,000 therms up to 2,500 therms	\$0. <u>11406_</u> 08650
FTS-3	> 2,500 therms up to 5,000 therms	\$0. <u>04527</u> 03443
FTS-3.1	> 5,000 therms up to 10,000 therms	\$0. <u>06029_05011</u>
FTS-4	> 10,000 therms up to 25,000 therms	\$0. <u>07233_</u> 05935
FTS-5	> 25,000 therms up to 50,000 therms	\$0. <u>07490</u> 05995
FTS-6	> 50,000 therms up to 100,000 therms	\$0. <u>05947</u> 04591
FTS-7	> 100,000 therms up to 200,000 therms	\$0.08142_06601
FTS-8	> 200,000 therms up to 400,000 therms	\$0. <u>06465_</u> 04960
FTS-9	> 400,000 therms up to 700,000 therms	\$0. <u>14596_</u> 07774
FTS-10	> 700,000 therms up to 1,000,000 therms	\$0. <u>09318_06889</u>
FTS-11	> 1,000,000 therms up to 2,500,000	\$0. <u>05475_</u> 0 6 947
FTS-12	> 2,500,000 therms up to 12,500,000	\$0. <u>03741_02580</u>
FTS-13	> 12,500,000 therms	N/A

(Continued to Sheet No. 105.2)

Effective: JAN-01-2016

Issued by: Michael P. McMasters, President Chesapeake Utilities Corporation

RATE SCHEDULES MONTHLY RATE ADJUSTMENTS

Rate Schedule MRA

7. GAS REPLACEMENT INFRASTRUCTURE PROGRAM (GR1P):

Applicability:

All Customers receiving Transportation Service from the Company and are assigned to or have selected rate schedules FTS-A, FTS-B, FTS-1, FTS-2, FTS-2.1, FTS-3, FTS-3.1, FTS-4, FTS-5, FTS-6, FTS-7, FTS-8, FTS-9, FTS-10, FTS-11, FTS-12, and FTS-13.

The Usage Rate for Transportation Service to each applicable rate classification shall be adjusted by the following recovery factors. The recovery factors for all meters read for the period January 1, 2017 through December 31, 2017 for each rate classification are as follows:

Rate Schedule	Classification of Service	Rate per therm
FTS A	< 130 therms	\$0.45319
FTS-B	> 130 therms up to 250 therms	\$0.15225
FTS-1	> 0 up to 500 therms	\$0.10371
FTS-2	> 500 therms up to 1,000 therms	\$0.11170
FTS-2.1	> 1,000 therms up to 2,500 therms	\$0.11406
FTS-3	> 2,500 therms up to 5,000 therms	\$0.04527
FTS-3.1	> 5,000 therms up to 10,000 therms	\$0.06029
FTS-4	> 10,000 therms up to 25,000 therms	\$0.07233
FTS-5	> 25,000 therms up to 50,000 therms	\$0.07490
FTS-6	> 50,000 therms up to 100,000 therms	\$0.05947
FTS-7	> 100,000 therms up to 200,000 therms	\$0.08142
FTS-8	> 200,000 therms up to 400,000 therms	\$0.06465
FTS-9	> 400,000 therms up to 700,000 therms	\$0.14596
FTS-10	> 700,000 therms up to 1,000,000 therms	\$0.09318
FTS-11	> 1,000,000 therms up to 2,500,000	\$0.05475
FTS-12	> 2,500,000 therms up to 12,500,000	\$0.03741
FTS-13	> 12,500,000 therms	N/A

(Continued to Sheet No. 105.2)

Issued by: Michael P. McMasters, President

Chesapeake Utilities Corporation

RATE SCHEDULES MONTHLY RATE ADJUSTMENTS

Rate Schedule MRA (Continued from Sheet No. 105.1)

7. GAS INFRASTRUCTURE REPLACEMENT PROGRAM (GRIP) (Experimental):

Applicability:

All Customers, assigned to a TTS Shipper, receiving Transportation Service from the Company and are assigned to or have selected rate schedules FTS-A (Exp), FTS-B (Exp), FTS-1 (Exp), FTS-2 (Exp), FTS-2.1 (Exp), FTS-3 (Exp), and FTS-3.1 (Exp).

The Firm Transportation Charge for Transportation Service to each applicable rate classification shall be adjusted by the following recovery factors. The recovery factors for all meters read for the period January 1, 2017 through December 31, 2017 for each rate classification are as follows:

Consumer			
Rate Schedule	Rate	per bill	
FTS-A (Exp)	\$	2.93	
FTS-B (Exp)	\$	1.71	
FTS-1 (Exp)	\$	1.70	
FTS-2 (Exp)	\$	6.68	
FTS-2.1 (Exp)	\$	13.09	
FTS-3 (Exp)	\$	15.66	
FTS-3.1 (Exp)	\$	36.01	

(Continued to Sheet No. 105.3)

Issued by: Michael P. McMasters, President

Chesapeake Utilities Corporation

Effective:

Florida Division of Chesapeake Utilities Corporation Fifth Fourth Revised Sheet No. 105.2 Original Volume No. 4 Cancels Fourth Third Revised Sheet No. 105.2

RATE SCHEDULES MONTHLY RATE ADJUSTMENTS

Rate Schedule MRA (Continued from Sheet No. 105.1)

7. GAS INFRASTRUCTURE REPLACEMENT PROGRAM (GRIP) (Experimental):

Applicability:

All Customers, assigned to a TTS Shipper, receiving Transportation Service from the Company and are assigned to or have selected rate schedules FTS-A (Exp), FTS-B (Exp), FTS-1 (Exp), FTS-2 (Exp), FTS-2.1 (Exp), FTS-3 (Exp), and FTS-3.1 (Exp).

The Firm Transportation Charge for Transportation Service to each applicable rate classification shall be adjusted by the following recovery factors. The recovery factors for all meters read for the period January 1, 2017 2016 through December 31, 2017 2016 for each rate classification are as follows:

Consumer Rate Schedule	Rate per bill
FTS-A (Exp)	\$ <u>2.93</u> 2.16
FTS-B (Exp)	\$ <u>1.71</u> 1.39
FTS-1 (Exp)	\$ 1,70 1,44
FTS-2 (Exp)	\$ <u>6.68</u> 5.10
FTS-2.1 (Exp)	\$ <u>13.09</u> 10.19
FTS-3 (Exp)	\$ <u>15.66</u> 12.60
FTS-3.1 (Exp)	\$ 36.01 29.8 6

(Continued to Sheet No. 105.3)

Issued by: Michael P. McMasters, President Chesapeake Utilities Corporation

Effective: JAN-01-2016

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Rate Schedule-LVS	Large Volume Service	39
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Area Expansion Program	Area Expansion Surcharge	51
Rate Schedule PM	Pool Manager Service	52 - 53
Rate Schedule-OSSS-1	Off Systems Sales Service	54 - 56
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	Purchased Gas Cost Recovery Factor	62
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Florida Public Utilities Company-Fort Meade Formatted: Underline, Font color: Red F.P.S.C. Gas Tariff Original Volume No. 1 Original Sheet No. 64 Formatted: Font color: Red Formatted: Underline, Font color: Red BILLING ADJUSTMENTS Formatted: Font color: Red Formatted: Font color: Red Gas Reliability Infrastructure Program (GRIP) Formatted: Underline color: Auto, Font color: Red Formatted: No underline, Font color: Red Formatted: Font color: Red The bill for gas or transportation service supplied to a Customer in any Billing Period shall be Formatted: Underline, Font color: Red adjusted as follows: The GRIP factors for the period from the first billing cycle for January 2017, through the last Formatted: Underline, Font color: Red billing cycle for December 2017, are as follows: Formatted: Underline, Font color: Red

Rate Class	Rates Per Therm	Formatted: Font color: Red
Rate Schedule RS	\$0.36931	Formatted: Underline, Font color: Dark
Rate Schedule GS-1	\$0.11672	Red
Rate Schedule GS-2	\$0.11672 <u>,</u>	Formatted: Underline, Font color: Dark Red
Rate Schedule GSTS-1	\$0.11672	Formatted: Underline, Font color: Dark
Rate Schedule GSTS-2	\$0.11672	Red
Rate Schedule LVS	\$0.00000	Formatted: Underline, Font color: Dark Red
Rate Schedule LVTS	\$0.00000	Formatted: Underline, Font color: Dark
Rate Schedule IS	\$0.00000	Red
Rate Schedule ITS	\$0.00000	Formatted: Underline, Font color: Dark
Rate Schedule GLS	\$0.00000	Red
Rate Schedule GLSTS	\$0.00000	Formatted: Underline, Font color: Red
Rate Schedule NGV	\$0.00000	

\$0.00000

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Rate Schedule NGVTS

BILLING ADJUSTMENTS

Gas Reliability Infrastructure Program (GRIP)

Applicability

The bill for gas or transportation service supplied to a Customer in any Billing Period shall be adjusted as follows:

The GRIP factors for the period from the first billing cycle for January 2017 through the last billing cycle for December 2017 are as follows:

Rate Class	Rates Per Therm
Rate Schedule RS	\$0.36931
Rate Schedule GS-1	\$0.11672
Rate Schedule GS-2	\$0.11672
Rate Schedule GSTS-1	\$0.11672
Rate Schedule GSTS-2	\$0.11672
Rate Schedule LVS	\$0.00000
Rate Schedule LVTS	\$0.00000
Rate Schedule IS	\$0.00000
Rate Schedule ITS	\$0.00000
Rate Schedule GLS	\$0.00000
Rate Schedule GLSTS	\$0.00000
Rate Schedule NGV	\$0.00000
Rate Schedule NGVTS	\$0.00000

1		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
1		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2 3 4 5	In R	e: Joint Petition for Approval of GRIP Cost Recovery Factors by Florida Public Utilities Company, Florida Public Utilities Company-Fort Meade, and Florida Division of Chesapeake Utilities Corporation.
6		DIRECT TESTIMONY OF MICHAEL CASSEL
7		On behalf of
8		Florida Public Utilities Company,
9		Florida Division of Chesapeake Utilities Corporation and Florida Public Utilities
LO		Company-Fort Meade
L1	Q.	Please state your name, occupation and business address.
L2	A.	My name is Michael Cassel. I am the Director of Regulatory and Governmental
L3		Affairs for Florida Public Utilities Company, Florida Public Utilities Company – Fort
L 4		Meade ("Fort Meade") (herein jointly, "FPUC"), and the Florida Division of
L 5		Chesapeake Utilities Corporation ("CFG") (also referred to herein individually as
16		"Company" and jointly as "Companies"). FPUC has its administrative offices at
L 7		1750 S. 14 th Street, Suite 200, Fernandina Beach, Florida 32034.
18	Q.	Describe briefly your education and relevant professional background.
19	A.	I received a Bachelor of Science Degree in Accounting from Delaware State
20 -		University in Dover, Delaware in 1996. From 1996 to 1999, I was employed by J.P.
21		Morgan, Inc., where I had various accounting/finance responsibilities for the firm's
22		private baking clientele. Subsequently, I was employed by Computer Sciences
23		Corporation as a Senior Finance Manager from 1999 to 2006. In this position, I was
24		responsible for the financial operation of the company's chemical, oil and natural
25		resources business. This included forecasting, financial close and reporting
26		responsibility, as well as representing Computer Sciences Corporation's financial
27		interests in contract/service negotiations with existing and potential clients. From
2.8		2006 to 2008. I was employed by J.P. Morgan Chase & Company, Inc. as a Financial

1	Manager in their card finance group. My primary responsibility in this position was
2	the development of client specific financial models and profit loss statements. In
3	2008, I was hired by Chesapeake Utilities Corporation ("CUC") as a Senior
4	Regulatory Analyst. In that position, I was primarily involved in the areas of gas cost
5	recovery, rate of return analysis, and budgeting for CUC's Delaware and Maryland
6 .	natural gas distribution companies. In 2010, I moved to Florida to assume the role of
7	Senior Tax Accountant for CUC's Florida business units, which included FPUC and
8	CFG. Since that time, I have held various management roles including Manager of
9	the Back Office in 2011, and Director of Business Management in 2012.

- 10 Q. Have you filed testimony before the Florida Public Service Commission in prior cases?
- 12 A. Yes, I have submitted testimony on the Actual/Estimated True-Up of the Fuel and
 13 Purchased Power Cost Recovery Clause, Docket No. 160001-EI.
- Q. Are you familiar with the Gas Reliability Infrastructure Program ("GRIP") of the Company and the associated projected and actual revenues and costs?
- 16 A. Yes.
- 17 Q. What is the purpose of your testimony in this docket?
- A. My testimony will provide the actual true-up for January 1, 2015 to December 1, 2015 and the actual/estimated true-up based on 7 months actual 2016 data and 5 months projected 2016 data. My testimony will describe the Company's forecast of GRIP investment for natural gas mains and services for 2017. Finally, I will summarize the computations that are contained in composite exhibit MC-1 supporting the January through December 2017 projected GRIP surcharge factors for the FPUC, CFG and Fort Meade natural gas divisions.
- Q. Were the schedules filed by the Company completed by you or under your direct supervision?

1	A.	Yes, they were completed under my direct supervision and review.
2	Q.	Which set of schedules has your company completed and filed?
3	A.	The Company has prepared and filed in composite Exhibit MC-1, Schedules A, B, C,
4		and D that support the calculation of the yearly GRIP surcharge factors for January
5		through December 2017 for FPUC and CFG.
6	Q.	What is the projection period for this filing?
7	A.	The projection period is January through December 2017.
8	Q.	What is the appropriate final GRIP true-up amount for the period
9		January through December 2015?
10	A.	For FPUC, the final GRIP true-up amount for the period January through December
11		2015 is an under-recovery of \$2,967,684 inclusive of interest and an under-recovery
12		of \$125,419 inclusive of interest for CFG.
13 ·	Q.	What is the projected GRIP true-up amount for the period January through
14		December 2016?
15	A.	For FPUC, the projected GRIP true-up amount is an under-recovery of \$919,677
16		inclusive of interest, for the period January through December 2016. CFG has
17		projected an under-recovery for the same period of \$187,378 inclusive of interest. Ft.
18		Meade has projected an under-recovery for the same period of \$4,210 inclusive of
19		interest.
20	Q.	What is the total projected GRIP true-up amount to be collected from or
21		refunded to customers for the period January through December 2016?
22	A.	As shown on Schedule C-1, page 3 of 14, the total net under-recovery to be collected
23		for FPUC is \$3,887,361 and CFG, Schedule C-1 page 8 of 14, has a total net under-
24		recovery of \$312,797 to be collected for the period January through December 2016.
25		Ft. Meade, Schedule C-1 page 12 of 14, has a total net under-recovery of \$4,210.

- Q. Please describe how the forecasts of the replacement of qualifying distribution
 mains and services were developed for the projection period.
- In the initial joint petition for approval of GRIP (Order No. PSC-12-0490-TRF-GU), 3 A. 4 FPUC and CFG reviewed the remaining eligible infrastructure and developed a 5 replacement plan, based on our Distribution Integrity Management Program 6 ("DIMP") and our best estimate of how quickly we could replace our bare steel and 7 cast iron facilities, with an accelerated period of 10 years. Both companies 8 prioritized the potential replacement projects focusing initially on areas of high 9 consequence and areas more susceptible to corrosion. FPUC provides service to 10 large metropolitan areas and the replacement of eligible infrastructure in high-11 density, urban areas typically cost more than areas that are primarily rural. FPUC 12 and CFG have continued to replace eligible infrastructure aggressively. 13 Company continues to discover new bare steel, cast iron and steel tubing mains and 14 services for replacement that was not included in the original petition. For example, 15 the Company discovered steel tubing services in Fort Meade that require replacing.
- 16 Q. Have you included the estimated investment costs for Fort Meade in your forecast for the projection period?
- A. Yes. Commission Order No. PSC-15-0578-TRF-GU approved the proposed GRIP program for Ft. Meade effective January 1, 2016. Projected costs are included in the exhibits.
- Q. Please describe how the forecasts of the revenue requirements are developed for the projection period.
- A. The projected revenue requirements include several components: 1) the return on estimated qualified investments for the projection period as calculated using the equity and debt components of the weighted average cost of capital from each companies respective prior rate cases. 2) depreciation expense (respectively

calculated using the currently approved depreciation rates) and 3) expenses for
customer and general public notifications associated with GRIP and ad valorem
taxes, grossed up for federal and state income taxes. Since FPUC has a bare steel
replacement and recovery program, originally approved in the Company's 2004 rate
case proceeding, the revenue requirement is net of the existing bare steel program,
which equates to \$747,727 embedded in base rate revenues. CFG and Fort Meade do
not have any recovery amounts embedded in their base rates. The 2017 projected
mains and services to be replaced are shown on Exhibit MC-1, Schedule C-1, pages
4, 9 and 13. FPUC is expecting to invest \$4,214,388 in mains and \$925,116 for
services. CFG is expecting to invest \$1,509,396 in mains and \$113,616 in services
and Fort Meade is expecting to invest \$277,081 in services.

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- Q. What are the resulting net total projected revenue requirements to be recovered during this projection period?
- 14 A. The total projected revenue requirements to be recovered are \$14,229,992 for FPUC,

 Schedule D-1 page 5 of 14, \$3,190,295 for CFG, Schedule D-1 page 10 of 14, and

 \$49,859 for Fort Meade, Schedule D-1 page 14 of 14.
- Have you prepared a schedule that shows the calculation of the proposed GRIP surcharge factors for each rate class to be applied during the billing period January 1, 2017 through December 31, 2017?
- 20 A. Yes, Please see Schedule D-1 pages 5, 10 and 14 for FPUC, CFG and Fort Meade, 21 respectively. For CFG, rate class FTS-13 is excluded from the GRIP surcharge factor 22 calculation since this rate class pertains to special contract customers.
- Q. What should be the effective date of the GRIP surcharge factors for billing purposes?
- 25 A. The GRIP surcharge factors should be effective for all meter reading during the period of January 1, 2017 through December 31, 2017.

- 1 Q. Does this conclude your testimony?
- 2 A. Yes it does.

GRIP SCHEDULES A-D

FOR

Exhibit __ (MC-1)

FLORIDA PUBLIC UTILITIES COMPANY NATURAL GAS DIVISION, FLORIDA PUBLIC UTILITIES COMPANY – FORT MEADE

AND

FLORIDA DIVISION OF CHESAPEAKE UTILITIES CORPORATION

Gas Reliability Infrastructure Program (GRIP)
Calculation of Equity and Debt Returns

Schedule A-1
Exhibit
Michael Cassel (MC-1
Page 1 of 14

Earnings Surveillance Report - December 31, 2015

But vernance resport December 51, 2015	
Equity Cost Rate	10.85%
Weighted Equity Cost Rate	5.02%
Revenue Expansion Factor	1.6401
Weighted Equity Cost Rate, times Revenue Expansion Factor	8.230%
Long Term Debt-CU	0.940%
Short Term Debt	0.180%
Long Term Debt-FC	0.360%
Short Term Debt-Refinanced LTD	0.000%
Customer Deposits	0.100%
Weighted Debt Cost Rate	1.580%
Overall Weighted Cost Rate	6.60%

Gas Reliability Infrastructure Program (GRIP)
Calculation of the Actual Revenue Requirements
Seven Months Actual January 2015 through July 2015
Fetimated August 2015; through December 2015

Schedule B-1
Exhibit_____
Michael Cassel (MC-1)
Page 2 of 14

Estimated August 2015 through December 2015	Beginning	Actual -	Actual	Actual	Actual	· Actual	Actual	Actual	· Actual	Actual	Actual	· Actual	Actual	After Adj. Year End	
Item	Balance	Jan	Feb	Mar	Арг	May	<u>Jun</u>	Jul	<u>Aug</u>	Sep	Oct	Nov	Dec	Total/Balance	
Qualified Investment					-										
Qualified Investment - Mains - Current 1070 Activity		\$1,683,320	\$2,008,191	\$2,569,032	\$2,088,131	\$1,948,197	\$1,370,233	\$2,497,822	\$1,138,373	\$1,670,326	\$1,316,968		\$ 2,236,059	\$21,377,824	
Qualified Investment - Mains - Closed 1070 Activity to Plant		(\$162,243)	(\$972,057)	(\$3,594,327)	(\$1,168,965)	(\$823,574)	(\$235,795)	(\$3,982,703)	(\$296,454)	(\$58,404)	\$104,001			(\$20,261,324)	
Qualified Investment - Services - Current 1070 Activity		\$526,342	\$628,856	\$454,620	\$610,359	\$405,006	\$424,630	\$1,082,197	\$375,971	\$441,007	\$349,421	\$378,484		\$5,803,522	
Qualified Investment - Services - Closed 1070 Activity to Plant		(\$124,298)	(\$932,832)	(\$207,415)	(\$550,774)	(\$681,352)	(\$370,192)	(\$656,227)	(\$699,521)	(\$579,033)	(\$129,222)	(\$455,462)		(\$5,803,522)	
Qualified Investment - Mains - Current 1010 Activity		\$162,243	\$972,057	\$3,594,327	\$1,168,965	\$823,574	\$235,795	\$3,982,703	\$296,454	\$58,404	(\$104,001)	\$67,349		\$20,261,324	
Qualified Investment - Services - Current 1010 Activity		\$124,298	\$932,832	\$207,415	\$550,774	\$681,352	\$370,192	\$656,227	\$699,521	\$579,033	\$129,222	\$455,462	\$417,194	\$5,803,522	
								#2 450 266	04.201.106	\$5,913,108	\$7,334,077	\$8,117.900	\$1,350,505	\$1,350,505	
Total Qualified Investment - Mains 1070	\$234,005	\$1,755,082	\$2,791,216	\$1,765,920	\$2,685,086	\$3,809,709	\$4,944,147	\$3,459,266 \$608,919	\$4,301,186 \$285,369	\$3,913,108	\$7,334,077 \$367,542	\$290,564	\$1,330,303	\$1,350,505	
Total Qualified Investment - Services 1070	\$0	\$402,044	\$98,067	\$345,273	\$404,858	\$128,512	\$182,949	\$35,470,080	\$35,766,533	\$35,824,937	\$35,720,936	\$35,788,285	\$44,791,739	\$44,791.739	
Total Qualified Investment - Mains 1010	\$24,530,415	\$24,692,658	\$25,664,715	\$29,259,042	\$30,428,007	\$31,251,581 \$11,106,576	\$31,487,377 \$11,476,768	\$12,132,995	\$12,832,516	\$13,411,550	\$13,540,771	\$13,996,233	\$14,413,427	\$14,413,427	
Total Qualified Investment - Services 1010	\$8,609,905	\$8,734,203	\$9,667,035	\$9,874,450 \$41,244,685	\$10,425,224 \$43,943,175	\$11,106,376	\$48,091,241	\$51,671,260	\$53,185,604	\$55,296,937	\$56,963,326	\$58,192,982	\$60,555,671	\$60.555.671	
Total Qualified Investment	\$33,374,325	\$35,583,987	\$38,221,033	\$41,244,683	343,943,173	\$40,290,378	\$46,071,241	\$51,071,200	\$33,103,004	\$33,270,337	030,703,523				
7 1 1 1 1 1 1 2 2 2 2	(8500 7/5)	(\$672,286)	(\$745,439)	(\$822.797)	(\$908.410)	(\$997,794)	(\$1,090,496)	(\$1,184,542)	(\$1,288.693)	(\$1,395,060)	(\$1,502,857)	(\$1,610,719)	(\$1,719,752)	(\$1,719,752)	
Less: Accumulated Depreciation	(\$599,765) \$32,774.560	\$34,911,701	\$37,475,594	\$40,421.888	\$43.034.765	\$45,298,584	\$47,000,745	\$50,486,718	\$51,896,911	\$53,901,877	\$55,460,469	\$56,582,263	\$58,835,919	\$58,835,919	
Net Book Value	\$32,774,560	\$34,911,701	\$37,473,394	\$40,421,000	\$45,054,705	.p4J,236,364	347,000,745	\$50,400,770	451,050,511	433,701,011					
	=	*** *** ***	407 100 (45	620.040.741	\$41,728,327	\$44,166,675	\$46,149,665	\$48,743,732	\$51,191,815	\$52,899,394	\$54,681,173	\$56,021,366	\$57,709,091		
Average Net Qualified Investment	=	\$33,843,130	\$36,193,647	\$38,948,741	\$41,726,327	\$44,100,073	\$40,149,003	\$40,745,752	\$51,191,015	332,077,374	\$54,001,175	Ψ30,021,300	457,703,031		
Depreciation Rates		2.60%	2.60%	2,60%	2,60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2,60%	2.60%		
Approved Depreciation Rate-Mains		2.70%	2.70%	2,70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2,70%	2,70%	2.70%		
Approved Depreciation Rate-Services		2.7078	2.7070	2.7070	2.7070	2.7070									
Return on Average Net Qualified Investment															
Equity - Cost of Capital, inclusive of Income Tax Gross-up		8.1200%	8.1200%	8.1200%	8,1200%	8,1200%	8,1200%	8.1200%	8.1200%	8.1200%	8.1200%	8.1200%	8.1200%		
Debt - Cost of Capital		1.8300%	1,8300%	1.8300%	1.8300%	1.8300%	1.8300%	1.8300%	1.8300%	1.8300%	1.8300%	1,8300%	1.8300%		
Debt - Cost of Capital															
Equity Component - inclusive of Income Tax Gross-up		\$229,005	\$244,910	\$263,553	\$282,362	\$298,861	\$312,279	\$329,833	\$346,398	\$357,953	\$370,009	\$379,078	\$390,498	\$3,804,739	
Debt Component		\$51,611	\$55,195	\$59,397	\$63,636	\$67,354	\$70,378	\$74,334	\$78,068	\$80,672	\$83,389	\$85,433	\$88,006	\$857,473	
Return Requirement		\$280,616	\$300,105	\$322,950	\$345,998	\$366,215	\$382,657	\$404,167	\$424,466	\$438,625	\$453,398	\$464,511	\$478,504	\$4,662,212	
Investment Expenses											455 (2)	### 20£	677 541	\$814,417	
Depreciation Expense - Mains		\$53,149	\$53,501	\$55,607	\$63,395	\$65,927	\$67,712	\$68,223	\$76,852 \$27,299	\$77,494 \$28,873	\$77,621 \$30,176	\$77,395 \$30,467	\$77,541 \$31,492	\$305,570	
Depreciation Expense - Services		\$19,372	\$19,652	\$21,751	\$22,218	\$23,457	\$24,990	\$25,823						2010,010	
Property Taxes							4							\$655.488	
	2.00%	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$655,488 \$84.344	
General Public Notice Expense & Customer Notice Expense	2.00%						4							\$655,488 \$84,344	
	2.00%	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624			
General Public Notice Expense & Customer Notice Expense	2.00%	\$54,624 \$3,046	\$54,624 \$9,892	\$54,624 \$8,980	\$54,624 \$29,155	\$54,624 \$0	\$54,624 \$6,802	\$54,624 \$0	\$54,624 \$15,067	\$54,624 \$1,630	\$54,624 \$5,985	\$54,624			
	2.00%	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624	\$54,624 \$3,788	\$54,624	\$84,344	
General Public Notice Expense & Customer Notice Expense Total Expense	2.00%	\$54,624 \$3,046 \$130,191	\$54,624 \$9,892 \$137,669	\$54,624 \$8,980 \$140,962	\$54,624 \$29,155 \$169,392	\$54,624 \$0 \$144,008	\$54,624 \$6,802 \$154,128	\$54,624 \$0 \$148,670	\$54,624 \$15,067 \$173,842	\$54,624 \$1,630 \$162,621	\$54,624 \$5,985 \$168,406	\$54,624 \$3,788	\$54,624	\$84,344	
General Public Notice Expense & Customer Notice Expense	2.00%	\$54,624 \$3,046	\$54,624 \$9,892	\$54,624 \$8,980	\$54,624 \$29,155	\$54,624 \$0	\$54,624 \$6,802	\$54,624 \$0	\$54,624 \$15,067	\$54,624 \$1,630	\$54,624 \$5,985	\$54,624 \$3,788 \$166,274	\$54,624 \$163,657	\$1,859,819	
General Public Notice Expense & Customer Notice Expense Total Expense Total Revenue Requirements	2.00%	\$54,624 \$3,046 \$130,191 \$410,807	\$54,624 \$9,892 \$137,669 \$437,774	\$54,624 \$8,980 \$140,962 \$463,912	\$54,624 \$29,155 \$169,392 \$515,390	\$54,624 \$0 \$144,008 \$510,223	\$54,624 \$6,802 \$154,128 \$536,785	\$54,624 \$0 \$148,670 \$552,837	\$54,624 \$15,067 \$173,842 \$598,308	\$54,624 \$1,630 \$162,621 \$601,246	\$54,624 \$5,985 \$168,406 \$621,804	\$54,624 \$3,788 \$166,274 \$630,785	\$54,624 \$163,657 \$642,161	\$1,859,819	
General Public Notice Expense & Customer Notice Expense Total Expense Total Revenue Requirements Embedded Revenue for Bare Steel Replacement Investment	2,00%	\$54,624 \$3,046 \$130,191 \$410,807 \$62,311	\$54,624 \$9,892 \$137,669 \$437,774 \$62,311	\$54,624 \$8,980 \$140,962 \$463,912 \$62,311	\$54,624 \$29,155 \$169,392 \$515,390 \$62,311	\$54,624 \$0 \$144,008 \$510,223 \$62,311	\$54,624 \$6,802 \$154,128 \$536,785 \$62,311	\$54,624 \$0 \$148,670 \$552,837	\$54,624 \$15,067 \$173,842 \$598,308 \$62,311	\$54,624 \$1,630 \$162,621 \$601,246	\$54,624 \$5,985 \$168,406 \$621,804	\$54,624 \$3,788 \$166,274	\$54,624 \$163,657	\$84,344 \$1,859,819 \$6,522,031	
General Public Notice Expense & Customer Notice Expense Total Expense Total Revenue Requirements	2,00%	\$54,624 \$3,046 \$130,191 \$410,807	\$54,624 \$9,892 \$137,669 \$437,774	\$54,624 \$8,980 \$140,962 \$463,912	\$54,624 \$29,155 \$169,392 \$515,390	\$54,624 \$0 \$144,008 \$510,223	\$54,624 \$6,802 \$154,128 \$536,785	\$54,624 \$0 \$148,670 \$552,837	\$54,624 \$15,067 \$173,842 \$598,308	\$54,624 \$1,630 \$162,621 \$601,246	\$54,624 \$5,985 \$168,406 \$621,804	\$54,624 \$3,788 \$166,274 \$630,785 \$62,311	\$54,624 \$163,657 \$642,161 \$62,312	\$84,344 \$1,859,819 \$6,522,031 \$747,733	
General Public Notice Expense & Customer Notice Expense Total Expense Total Revenue Requirements Embedded Revenue for Bare Steel Replacement Investment Net Revenue Requirements / (Surplus)	2.00%	\$54,624 \$3,046 \$130,191 \$410,807 \$62,311 \$348,496	\$54,624 \$9,892 \$137,669 \$437,774 \$62,311 \$375,463	\$54,624 \$8,980 \$140,962 \$463,912 \$62,311 \$401,601	\$54,624 \$29,155 \$169,392 \$515,390 \$62,311 \$453,079	\$54,624 \$0 \$144,008 \$510,223 \$62,311 \$447,912	\$54,624 \$6,802 \$154,128 \$536,785 \$62,311 \$474,474	\$54,624 \$0 \$148,670 \$552,837 \$62,311 \$490,526	\$54,624 \$15,067 \$173,842 \$598,308 \$62,311 \$535,997	\$54,624 \$1,630 \$162,621 \$601,246 \$62,311 \$538,935	\$54,624 \$5,985 \$168,406 \$621,804 \$62,311 \$559,493	\$54,624 \$3,788 \$166,274 \$630,785 \$62,311 \$568,474	\$54,624 \$163,657 \$642,161 \$62,312	\$84,344 \$1,859,819 \$6,522,031 \$747,733	
General Public Notice Expense & Customer Notice Expense Total Expense Total Revenue Requirements Embedded Revenue for Bare Steel Replacement Investment	2.00%	\$54,624 \$3,046 \$130,191 \$410,807 \$62,311	\$54,624 \$9,892 \$137,669 \$437,774 \$62,311 \$375,463	\$54,624 \$8,980 \$140,962 \$463,912 \$62,311	\$54,624 \$29,155 \$169,392 \$515,390 \$62,311 \$453,079	\$54,624 \$0 \$144,008 \$510,223 \$62,311 \$447,912	\$54,624 \$6,802 \$154,128 \$536,785 \$62,311 \$474,474	\$54,624 \$0 \$148,670 \$552,837 \$62,311 \$490,526	\$54,624 \$15,067 \$173,842 \$598,308 \$62,311 \$535,997	\$54,624 \$1,630 \$162,621 \$601,246 \$62,311 \$538,935	\$54,624 \$5,985 \$168,406 \$621,804 \$62,311 \$559,493	\$54,624 \$3,788 \$166,274 \$630,785 \$62,311 \$568,474	\$163,657 \$642,161 \$62,312 \$579,849	\$84,344 \$1,859,819 \$6,522,031 \$747,733 \$5,774,298	
General Public Notice Expense & Customer Notice Expense Total Expense Total Revenue Requirements Embedded Revenue for Bare Steel Replacement Investment Net Revenue Requirements / (Surplus) GRIP Surcharge Revenues Collected Month	2.00%	\$54,624 \$3,046 \$130,191 \$410,807 \$62,311 \$348,496	\$54,624 \$9,892 \$137,669 \$437,774 \$62,311 \$375,463	\$54,624 \$8,980 \$140,962 \$463,912 \$62,311 \$401,601	\$54,624 \$29,155 \$169,392 \$515,390 \$62,311 \$453,079	\$54,624 \$0 \$144,008 \$510,223 \$62,311 \$447,912	\$54,624 \$6,802 \$154,128 \$536,785 \$62,311 \$474,474	\$54,624 \$0 \$148,670 \$552,837 \$62,311 \$490,526	\$54,624 \$15,067 \$173,842 \$598,308 \$62,311 \$535,997	\$54,624 \$1,630 \$162,621 \$601,246 \$62,311 \$538,935	\$54,624 \$5,985 \$168,406 \$621,804 \$62,311 \$559,493 \$277,287	\$54,624 \$3,788 \$166,274 \$630,785 \$62,311 \$568,474 \$ 305,493	\$54,624 \$163,657 \$642,161 \$62,312 \$579,849 \$ 358,208	\$84,344 \$1,859,819 \$6,522,031 \$747,733 \$5,774,298 \$4,089,962 \$1,281,394	
General Public Notice Expense & Customer Notice Expense Total Expense Total Revenue Requirements Embedded Revenue for Bare Steel Replacement Investment Net Revenue Requirements / (Surplus) GRIP Surcharge Revenues Collected Month Beginning True-Up	2.00%	\$54,624 \$3,046 \$130,191 \$410,807 \$62,311 \$348,496	\$54,624 \$9,892 \$137,669 \$437,774 \$62,311 \$375,463 \$ 500,335	\$54,624 \$8,980 \$140,962 \$463,912 \$62,311 \$401,601	\$54,624 \$29,155 \$169,392 \$515,390 \$62,311 \$453,079 \$362,300	\$54,624 \$0 \$144,008 \$510,223 \$62,311 \$447,912 \$ 305,328	\$54,624 \$6,802 \$154,128 \$536,785 \$62,311 \$474,474	\$54,624 \$0 \$148,670 \$552,837 \$62,311 \$490,526	\$54,624 \$15,067 \$173,842 \$598,308 \$62,311 \$535,997 \$267,807	\$162,621 \$162,621 \$601,246 \$62,311 \$538,935 \$266,276	\$54,624 \$5,985 \$168,406 \$621,804 \$62,311 \$559,493 \$277,287 \$282,206	\$54,624 \$3,788 \$166,274 \$630,785 \$62,311 \$568,474 \$ 305,493 \$ 262,981	\$54,624 \$163,657 \$642,161 \$62,312 \$579,849 \$ 358,208 \$ 221,641	\$1,859,819 \$6,522,031 \$747,733 \$5,774,298 \$4,089,962 \$1,281,394 \$1,684,336	
General Public Notice Expense & Customer Notice Expense Total Expense Total Revenue Requirements Embedded Revenue for Bare Steel Replacement Investment Net Revenue Requirements / (Surplus) GRIP Surcharge Revenues Collected Month Beginning True-Up (Over) and Under Recovery for the Month	-	\$54,624 \$3,046 \$130,191 \$410,807 \$62,311 \$348,496 \$469,181 \$(120,685) \$5	\$54,624 \$9,892 \$137,669 \$437,774 \$62,311 \$375,463 \$500,335	\$54,624 \$8,980 \$140,962 \$463,912 \$62,311 \$401,601 \$434,085	\$54,624 \$29,155 \$169,392 \$515,390 \$62,311 \$453,079 \$362,300 \$90,779 \$63	\$54,624 \$0 \$144,008 \$510,223 \$62,311 \$447,912 \$ 305,328 \$ 142,584 \$ 82	\$54,624 \$6,802 \$154,128 \$536,785 \$62,311 \$474,474 \$292,514 \$181,960 \$106	\$54,624 \$0 \$148,670 \$552,837 \$62,311 \$490,526 \$ 251,148 \$ 239,378 \$ 108	\$54,624 \$15,067 \$173,842 \$598,308 \$62,311 \$535,997 \$267,807 \$268,190 \$143	\$54,624 \$1,630 \$162,621 \$601,246 \$62,311 \$538,935 \$266,276 \$272,659 \$186	\$54,624 \$5,985 \$168,406 \$621,804 \$62,311 \$559,493 \$277,287 \$282,206 \$211	\$54,624 \$3,788 \$166,274 \$630,785 \$62,311 \$568,474 \$305,493 \$262,981 \$261	\$54,624 \$163,657 \$642,161 \$62,312 \$579,849 \$ 358,208 \$ 221,641 \$ 571	\$84,344 \$1,859,819 \$6,522,031 \$747,733 \$5,774,298 \$4,089,962 \$1,281,394 \$1,684,336 \$1,954	
General Public Notice Expense & Customer Notice Expense Total Expense Total Revenue Requirements Embedded Revenue for Bare Steel Replacement Investment Net Revenue Requirements / (Surplus) GRIP Surcharge Revenues Collected Month Beginning True-Up (Over) and Under Recovery for the Month Monthly Interest (Expense)/income	-	\$54,624 \$3,046 \$130,191 \$410,807 \$62,311 \$348,496 \$469,181 \$(120,685) \$5	\$54,624 \$9,892 \$137,669 \$437,774 \$62,311 \$375,463 \$500,335	\$54,624 \$8,980 \$140,962 \$463,912 \$62,311 \$401,601 \$434,085	\$54,624 \$29,155 \$169,392 \$515,390 \$62,311 \$453,079 \$362,300 \$90,779 \$63	\$54,624 \$0 \$144,008 \$510,223 \$62,311 \$447,912 \$ 305,328 \$ 142,584 \$ 82	\$54,624 \$6,802 \$154,128 \$536,785 \$62,311 \$474,474 \$292,514 \$181,960 \$106	\$54,624 \$0 \$148,670 \$552,837 \$62,311 \$490,526 \$ 251,148 \$ 239,378 \$ 108	\$54,624 \$15,067 \$173,842 \$598,308 \$62,311 \$535,997 \$267,807 \$268,190 \$143	\$54,624 \$1,630 \$162,621 \$601,246 \$62,311 \$538,935 \$266,276 \$272,659 \$186	\$54,624 \$5,985 \$168,406 \$621,804 \$62,311 \$559,493 \$277,287 \$282,206	\$54,624 \$3,788 \$166,274 \$630,785 \$62,311 \$568,474 \$305,493 \$262,981 \$261	\$54,624 \$163,657 \$642,161 \$62,312 \$579,849 \$ 358,208 \$ 221,641 \$ 571	\$1,859,819 \$6,522,031 \$747,733 \$5,774,298 \$4,089,962 \$1,281,394 \$1,684,336	
General Public Notice Expense & Customer Notice Expense Total Expense Total Revenue Requirements Embedded Revenue for Bare Steel Replacement Investment Net Revenue Requirements / (Surplus) GRIP Surcharge Revenues Collected Month Beginning True-Up (Over) and Under Recovery for the Month	-	\$54,624 \$3,046 \$130,191 \$410,807 \$62,311 \$348,496 \$469,181 \$(120,685) \$5	\$54,624 \$9,892 \$137,669 \$437,774 \$62,311 \$375,463 \$500,335	\$54,624 \$8,980 \$140,962 \$463,912 \$62,311 \$401,601 \$434,085	\$54,624 \$29,155 \$169,392 \$515,390 \$62,311 \$453,079 \$ 362,300 \$ 90,779 \$ 63 \$ 1,094,418	\$144,008 \$144,008 \$510,223 \$62,311 \$447,912 \$ 305,328 \$ 142,584 \$ 82 \$ 1,237,084	\$54,624 \$6,802 \$154,128 \$536,785 \$62,311 \$474,474 \$292,514 \$181,960 \$106 \$1,419,150	\$54,624 \$0 \$148,670 \$552,837 \$62,311 \$490,526 \$ 251,148 \$ 239,378 \$ 108 \$ 1,658,636	\$54,624 \$15,067 \$173,842 \$598,308 \$62,311 \$535,997 \$267,807 \$268,190 \$143 \$1,926,969	\$162,621 \$601,246 \$62,311 \$538,935 \$266,276 \$272,659 \$186 \$2,199,814	\$54,624 \$5,985 \$168,406 \$621,804 \$62,311 \$559,493 \$277,287 \$282,206 \$211 \$2,482,230	\$54,624 \$3,788 \$166,274 \$630,785 \$62,311 \$568,474 \$ 305,493 \$ 262,981 \$ 261 \$ 2,745,472	\$163,657 \$642,161 \$62,312 \$579,849 \$ 358,208 \$ 221,641 \$ 571 \$ 2,967,684	\$84,344 \$1,859,819 \$6,522,031 \$747,733 \$5,774,298 \$4,089,962 \$1,281,394 \$1,684,336 \$1,954	
General Public Notice Expense & Customer Notice Expense Total Expense Total Revenue Requirements Embedded Revenue for Bare Steel Replacement Investment Net Revenue Requirements / (Surplus) GRIP Surcharge Revenues Collected Month Beginning True-Up (Over) and Under Recovery for the Month Monthly Interest (Expense)/income	-	\$54,624 \$3,046 \$130,191 \$410,807 \$62,311 \$348,496 \$469,181 \$(120,685) \$5	\$54,624 \$9,892 \$137,669 \$437,774 \$62,311 \$375,463 \$500,335 \$(124,872) \$77 \$1,035,999	\$54,624 \$8,980 \$140,962 \$463,912 \$62,311 \$401,601 \$ 434,085 \$ (32,484) \$ 61 \$ 1,003,576	\$54,624 \$29,155 \$169,392 \$515,390 \$62,311 \$453,079 \$ 362,300 \$ 90,779 \$ 63 \$ 1,094,418	\$54,624 \$0 \$144,008 \$510,223 \$62,311 \$447,912 \$305,328 \$142,584 \$2 \$1,237,084	\$54,624 \$6,802 \$154,128 \$536,785 \$62,311 \$474,474 \$292,514 \$181,960 \$106 \$1,419,150	\$54,624 \$0 \$148,670 \$552,837 \$62,311 \$490,526 \$ 251,148 \$ 239,378 \$ 108 \$ 1,658,636	\$54,624 \$15,067 \$173,842 \$598,308 \$62,311 \$535,997 \$267,807 \$268,190 \$143 \$1,926,969	\$162,621 \$162,621 \$601,246 \$62,311 \$538,935 \$266,276 \$272,659 \$186 \$2,199,814	\$54,624 \$5,985 \$168,406 \$621,804 \$62,311 \$559,493 \$277,287 \$282,206 \$211 \$2,482,230 0.12%	\$54,624 \$3,788 \$166,274 \$630,785 \$62,311 \$568,474 \$ 305,493 \$ 262,981 \$ 261 \$ 2,745,472	\$163,657 \$642,161 \$62,312 \$579,849 \$ 358,208 \$ 221,641 \$ 571 \$ 2,967,684	\$84,344 \$1,859,819 \$6,522,031 \$747,733 \$5,774,298 \$4,089,962 \$1,281,394 \$1,684,336 \$1,954	
General Public Notice Expense & Customer Notice Expense Total Expense Total Revenue Requirements Embedded Revenue for Bare Steel Replacement Investment Net Revenue Requirements / (Surplus) GRIP Surcharge Revenues Collected Month Beginning True-Up (Over) and Under Recovery for the Month Monthly Interest (Expense)/Income Ending (Over) and Under Recovery	-	\$54,624 \$3,046 \$130,191 \$410,807 \$62,311 \$348,496 \$ 469,181 \$ (120,685) \$ 85 \$ 1,160,794 0.08% 0.08%	\$54,624 \$9,892 \$137,669 \$437,774 \$62,311 \$375,463 \$ 500,335 \$ (124,872) \$ 77 \$ 1,035,999 0.08%	\$54,624 \$8,980 \$140,962 \$463,912 \$62,311 \$401,601 \$ 434,085 \$ (32,484) \$ 61 \$ 1,003,576 0.08% 0.060%	\$54,624 \$29,155 \$169,392 \$515,390 \$62,311 \$453,079 \$ 362,300 \$ 90,779 \$ 63 \$ 1,094,418	\$54,624 \$0 \$144,008 \$510,223 \$62,311 \$447,912 \$305,328 \$142,584 \$82 \$1,237,084 0.08% 0.09%	\$54,624 \$6,802 \$154,128 \$536,785 \$62,311 \$474,474 \$292,514 \$181,960 \$1,419,150 0.09% 0.09%	\$54,624 \$0 \$148,670 \$552,837 \$62,311 \$490,526 \$ 251,148 \$ 239,378 \$ 108 \$ 1,658,636 0.09% 0.08%	\$54,624 \$15,067 \$173,842 \$598,308 \$62,311 \$535,997 \$267,807 \$268,190 \$143 \$1,926,969	\$54,624 \$1,630 \$162,621 \$601,246 \$62,311 \$538,935 \$266,276 \$272,659 \$186 \$2,199,814 0,10% 0,12%	\$54,624 \$5,985 \$168,406 \$621,804 \$62,311 \$559,493 \$277,287 \$282,206 \$211 \$2,482,230 0.12% 0.09%	\$54,624 \$3,788 \$166,274 \$630,785 \$62,311 \$568,474 \$ 305,493 \$ 262,981 \$ 261 \$ 2,745,472 0.09% 0.15%	\$163,657 \$642,161 \$62,312 \$579,849 \$ 358,208 \$ 221,641 \$ 571 \$ 2,967,684 0.15% 0.34%	\$84,344 \$1,859,819 \$6,522,031 \$747,733 \$5,774,298 \$4,089,962 \$1,281,394 \$1,684,336 \$1,954	
General Public Notice Expense & Customer Notice Expense Total Expense Total Revenue Requirements Embedded Revenue for Bare Steel Replacement Investment Net Revenue Requirements / (Surplus) GRIP Surcharge Revenues Collected Month Beginning True-Up (Over) and Under Recovery for the Month Monthly Interest (Expense)/Income Ending (Over) and Under Recovery Beg of Month Annual Interest Rate	-	\$54,624 \$3,046 \$130,191 \$410,807 \$62,311 \$348,496 \$469,181 \$(120,685) \$85 \$1,160,794	\$54,624 \$9,892 \$137,669 \$437,774 \$62,311 \$375,463 \$500,335 \$(124,872) \$77 \$1,035,999	\$54,624 \$8,980 \$140,962 \$463,912 \$62,311 \$401,601 \$ 434,085 \$ (32,484) \$ 61 \$ 1,003,576	\$54,624 \$29,155 \$169,392 \$515,390 \$62,311 \$453,079 \$ 362,300 \$ 90,779 \$ 63 \$ 1,094,418	\$54,624 \$0 \$144,008 \$510,223 \$62,311 \$447,912 \$305,328 \$142,584 \$2 \$1,237,084	\$54,624 \$6,802 \$154,128 \$536,785 \$62,311 \$474,474 \$292,514 \$181,960 \$1,419,150 0.09% 0.09%	\$54,624 \$0 \$148,670 \$552,837 \$62,311 \$490,526 \$ 251,148 \$ 239,378 \$ 108 \$ 1,658,636	\$54,624 \$15,067 \$173,842 \$598,308 \$62,311 \$535,997 \$267,807 \$268,190 \$143 \$1,926,969	\$162,621 \$162,621 \$601,246 \$62,311 \$538,935 \$266,276 \$272,659 \$186 \$2,199,814	\$54,624 \$5,985 \$168,406 \$621,804 \$62,311 \$559,493 \$277,287 \$282,206 \$211 \$2,482,230 0.12%	\$54,624 \$3,788 \$166,274 \$630,785 \$62,311 \$568,474 \$ 305,493 \$ 262,981 \$ 261 \$ 2,745,472	\$163,657 \$642,161 \$62,312 \$579,849 \$ 358,208 \$ 221,641 \$ 571 \$ 2,967,684	\$84,344 \$1,859,819 \$6,522,031 \$747,733 \$5,774,298 \$4,089,962 \$1,281,394 \$1,684,336 \$1,954	

Gas Reliability Infrastructure Program (GRIP)
Calculation of the Projected Revenuc Requirements
January 1, 2016 through December 31, 2016

Schedule C-1
Exhibit
Michael Cassel (MC-1)
Page 3 of 14

. · . Item	Beginning Balance	ACTUAL <u>Jan</u>	ACTUAL <u>Feb</u>	ACTUAL Mar	ACTUAL Apr	ACTUAL <u>Mav</u>	ACTUAL Jun	ACTUAL Jul	PROJECTED Aug	PROJECTED Sep	PROJECTED Oct	PROJECTED Nov	PROJECTED Dec	Year End Total/Balance
Qualified Investment	,													
Qualified Investment - Mains - Current Year 1070 Activity		\$1,784,223	\$1,694,698	\$1,836,338	\$1,972,534	\$928,777	\$1,337,233	\$729,572	\$836,244 (\$752,619)	\$836,244 (\$752,619)	\$836,244 (\$752,619)	\$836,244 (\$752,619)	\$836,244 (\$752.619)	\$14,464,594 (\$12,586,004)
Qualified Investment - Mains - Closed 1070 Activity to Plant		\$79,622 \$376,394	(\$919,459) \$215,319	(\$126,904) \$386,842	(\$3,106,133) \$388,186	\$414,893	(\$90,085) \$499,485	(\$4,659,950) \$280,899	\$183,566	\$183,566	\$183,566	\$183,566	\$183,566	\$3,479,848
Qualified Investment - Services - Current Year 1070 Activity Qualified Investment - Services - Closed 1070 Activity to Plant		\$697,671	(\$1,176,874)	(\$220,287)	(\$439,072)	\$414,000	(\$587,465)	(\$364,346)	(\$183,566)	(\$183,566)	(\$183,566)	(\$183,566)	(\$183,566)	(\$3,008,200)
Oualified Investment - Mains - Current 1010 Activity		(\$79,622)	\$919,459	\$126.904	\$3,106,133	\$0	\$90,085	\$4,659,950	\$752,619	\$752,619	\$752,619	\$752,619	\$752,619	\$12,586,004
Qualified Investment - Services - Current 1010 Activity		(\$697,671)	\$1,176,874	\$220,287	\$439,072	\$0	\$587,465	\$364,346	\$183,566	\$183,566	\$183,566	\$183,566	\$183,566	\$3,008,200
•														
m 10 177 V 1070	\$1,350,505	\$3,214,349	\$3,989,588	\$5,699,023	\$4,565,423	\$5,494,200	\$6,741,348	\$2,810,970	\$2,894,595	\$2,978,220	\$3,061,845	\$3,145,469	\$3,229,094	\$3,229,094
Total Qualified Investment - Mains 1070 Total Qualified Investment - Service 1070	\$1,330,303	\$1,074,066	\$112,511	\$279,067	\$228,182	\$643,074	\$555,094	\$471,648	\$471.648	\$471,648	\$471,648	\$471,648	\$471,648	\$471,648
Total Qualified Investment - Mains 1010	\$44,791,739	\$44,712.118	\$45,631,577	\$45,758,481	\$48,864,614	\$48,864,614	\$48,954,699	\$53,614,649	\$54,367,268	\$55,119,887	\$55,872,506	\$56,625,125	\$57,377,744	\$57,377,744
Total Qualified Investment - Service 1010	\$14,413,427	\$13,715,756	\$14,892,629	\$15,112,916	\$15,551,988	\$15,551,988	\$16,139,452	\$16,503,799	\$16,687,365	\$16,870,930	\$17,054,496	\$17,238,062	\$17,421,627	\$17,421,627
Total Qualified Investment	\$60,555,671	\$62,716,289	\$64,626,305	\$66,849,486	\$69,210,206	\$70,553,876	\$72,390,594	\$73,401,065	\$74,420,875	\$75,440,684	\$76,460,494	\$77,480,303	\$78,500,113	\$78,500,113
				(50.100.515)	(00.040.400)	(00 303 35T)	(60 504 000)	(82 ((((05)	(\$2,819,903)	(\$2,975,246)	(\$3,132,632)	(\$3,292,062)	(\$3,453,535)	(\$3,453,535)
Less: Accumulated Depreciation	(\$1,719,752) \$58,835,919	(\$1,849,231) \$60,867,058	(\$1,976,968) \$62.649.338	(\$2,109,345) \$64,740,142	(\$2,242,492) \$66,967,714	(\$2,383,357) \$68,170,519	(\$2,524,223) \$69,866,371	(\$2,666,605) \$70,734,460	\$71,600,971	\$72,465,439	\$73,327,862	\$74,188,242	\$75,046,578	\$75,046,578
Net Book Value	\$38,833,919	300,867,038	\$02,049,336	504,740,142	\$00,907,714	\$00,170,515	\$07,000,371	\$70,754,400	\$71,000,771	472,100,100				
Average Net Qualified Investment	=	\$59,851,489	\$61.758.198	\$63,694,740	\$65,853,928	\$67,569,117	\$69,018,445	\$70,300,416	\$71,167,716	\$72,033,205	\$72,896,650	\$73,758,052	\$74,617,410	•
Average Net Quanted investment	=	007,001,107												
Depreciation Rates														
Approved Depreciation Rate-Mains		2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2,60%	2.60%	2.60%	2,60%	2.60%	
Approved Depreciation Rate-Services		2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	
Return on Average Net Qualified Investment Equity - Cost of Capital, inclusive of Income Tax Gross-up		8.2300%	8.2300%	8.2300%	8.2300%	8.2300%	8,2300%	8,2300%	8.2300%	8.2300%	8.2300%	8.2300%	8.2300%	
Debt - Cost of Capital		1.5800%	1.5800%	1,5800%	1.5800%	1.5800%	1,5800%	1.5800%	1.5800%	1.5800%	1.5800%	1.5800%	1.5800%	
South Cost of Cup.im														
Equity Component - inclusive of Income Tax Gross-up		\$410,481	\$423,558	\$436,840	\$451,648	\$463,412	\$473,352	\$482,144	\$488,092	\$494,028	\$499,950 \$95.981	\$505,857 \$97,115	\$511,751 \$98,246	\$5,641,112 \$1,082,984
Debt Component	_	\$78,804	\$81,315	\$83,865	\$86,708	\$88,966	\$90,874	\$92,562 \$574,706	\$93,704 \$581,796	\$94,844 \$588,871	\$95,981	\$602,972	\$609,997	\$6.724.096
Return Requirement	-	\$489,286	\$504,873	\$520,704	\$538,356	\$552,378	\$564,226	\$374,706	\$381,790	\$300,071	3393,730	3002,572	\$007,777	\$0,724,090
T. A. P. A. A. P. A. A. A. P. A. A. A. P. P. A. P. P. A. P. P. A. P.														
Investment Expenses Depreciation Expense - Mains		\$97,049	\$96,876	\$98,868	\$99,143	\$105,873	\$105,873	\$106,069	\$116,165	\$117,796	\$119,426	\$121,057	\$122,688	\$1,306,884
Depreciation Expense - Services		\$32,430	\$30,860	\$33,508	\$34,004	\$34,992	\$34,992	\$36,314	\$37,134	\$37,547	\$37,960	\$38,373	\$38,786	\$426,899
Property Taxes		\$98,060	\$98,060	\$98,060	\$98,060	\$98,060	\$98,060	\$98,060	\$98,060	\$98,060	\$98,060	\$98,060	\$98,060	\$1,176,718
General Public Notice Expense & Customer Notice Expense	_	\$0	\$3,102	\$0	\$6,180	\$18,792	#### CO.5	\$0	\$0	\$0 \$253,402	\$0 \$255,446	\$0 \$257,490	\$23,926 \$283,459	\$52,000 \$2,962,501
Total Expense	=	\$227,539	\$228,899	\$230,437	\$237,387	\$257,717	\$238,925	\$240,442	\$251,358	\$255,402	\$233,446	3237,490	\$203,437	\$2,902,301
Tatal Barris Bar		\$716,825	\$733,772	\$751,141	\$775,743	\$810.095	\$803,151	\$815,148	\$833,155	\$842,274	\$851,376	\$860,462	\$893,457	\$9,686,597
Total Revenue Requirements	=	\$710,025	9755,775	0.51,1.1	0,10,710									
Annual Revenue Requirement for Bare Steel Replacement Investment		\$62,310	\$62,310	\$62,310	\$62,310	\$62,310	\$62,310	\$62,310	\$62,310	\$62,310	\$62,310	\$62,310	\$62,317	\$747,727
Net Annual Revenue Requirements	_	\$654,515	\$671,462	\$688,831	\$713,433	\$747,785	\$740,841	\$752,838	\$770,845	\$779,964	\$789,066	\$798,152	\$831,140	\$8,938,870
	***										n 277 207	e 205 402	e 250 200	£9 024 427
GRIP Surcharge Revenues Collected Month		\$ 1,141,602	\$ 1,150,607	\$ 1,072,832	\$ 924,042	\$ 806,763	\$ 755,582	\$ 700,138	\$267,807	\$ 266,276	\$ 277,287	\$ 305,493	\$ 358,208	\$8,026,637
m 1 1 m m														\$ 2,967.684
Beginning True-Up (Over) and Under Recovery for the Month		\$ (487 087)	\$ (479,145)	\$ (384.001)	\$ (210,609)	\$ (58,978)	\$ (14,741)	\$ 52,700	\$ 503,038	\$ 513,688	\$ 511,779	\$ 492,659	\$ 472,932	\$ 912,233
Monthly Interest (Expense)/Income		\$ 763	\$ 650	\$ 507		\$ 428	\$ 416	\$ 409	\$ 476	\$ 623	\$ 772			\$ 7,444
Ending (Over) and Under Recovery	\$ 2,967,684			\$ 1,619,372	\$ 1,409,186	\$ 1,350,636	\$ 1,336,311	\$ 1,389,420	\$ 1,892,934	\$ 2,407,244	\$ 2,919,795	\$ 3,413,372	\$ 3,887,361	\$ 3,887,361
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Beg of Month Annual Interest Rate		0.34%	0.34%	0.35%		0.36%	0.38%	0.36%	0.35%	0.35%	0.35%	0.35%	0.35%	
End of Month Annual Interest Rate		0.34%	0.35%	0.320%		0,38%	0.36%	0,35%	0.35% 0,029%	0.35% 0.029%	0.35% 0.029%	0.35% 0,029%	0.35% 0.029%	
Average Monthly Interest Rate		0.028%	0.029%	0.028%	0.028%	0.031%	0.031%	0.030%	0,029%	0.029%	0,02976	0,02970	0.027/0	

Florida Public Utilities Company Gas Reliability Infrastructure Program (GRIP) Calculation of the Projected Revenue Requirements
January 1, 2017 through December 31, 2017

Schedule C-2 Exhibit_ Michael Cassel (MC-1) Page 4 of 14

*	Beginning Balance	Jan	<u>Feb</u>	Mar	Apr	<u>Mav</u>	<u>Jun</u>	Jul	Aug	Sep	Oct	Nov	<u>Dec</u>	Year End Total/Balance
Item Oualified Investment	Datatice	3411	100	Ivida	2101	11111				3.40				
Qualified Investment - Mains - Current Year 1070 Activity		\$351,199	\$351,199	\$351,199	\$351,199	\$351,199	\$351,199	\$351,199	\$351,199	\$351,199	\$351,199	\$351,199	\$351,199	\$4,214,388
Oualified Investment - Mains - Closed 1070 Activity to Plant		(\$333,639)	(\$333,639)	(\$333,639)	(\$333,639)	(\$333,639)	(\$333,639)	(\$333,639)	(\$333,639)	(\$333,639)	(\$333,639)	(\$333,639)	(\$333,639)	(\$4,003,668)
Qualified Investment - Services - Current Year 1070 Activity		\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$925,116
Qualified Investment - Services - Closed 1070 Activity to Plant		(\$77,093)	(\$77,093)	(\$77,093)	(\$77,093)	(\$77,093)	(\$77,093)	(\$77,093)	(\$77,093)	(\$77,093)	(\$77,093)	(\$77,093)	(\$77,093)	(\$925,116)
Qualified Investment - Mains - Current 1010 Activity		\$333,639	\$333,639	\$333,639	\$333,639	\$333,639	\$333,639	\$333,639	\$333,639	\$333,639	\$333,639	\$333,639	\$333,639	\$4,003,668
Qualified Investment - Services - Current 1010 Activity		\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$925,116
Total Qualified Investment - Mains 1070	\$3,229,094	\$3,246,654	\$3,264,214	\$3,281,774	\$3,299,334	\$3,316,894	\$3,334,454	\$3,352,014	\$3,369,574	\$3,387,134	\$3,404,694	\$3,422,254	\$3,439,814	\$3,439,814
Total Qualified Investment - Service 1070	\$471,648	\$471,648	\$471,648	\$471,648	\$471,648	\$471,648	\$471,648	\$471,648	\$471,648	\$471,648	\$471,648	\$471,648	\$471,648	\$471,648
Total Qualified Investment - Mains 1010	\$57,377,744	\$57,711,383	\$58,045,022	\$58,378,661	\$58,712,300	\$59,045,939	\$59,379,578	\$59,713,217	\$60,046,856	\$60,380,495	\$60,714,134	\$61,047,773	\$61,381,412	\$61,381,412
Total Qualified Investment - Service 1010	\$17,421,627	\$17,498,720	\$17,575,813	\$17,652,906	\$17,729,999	\$17,807,092	\$17,884,185	\$17,961,278	\$18,038,371	\$18,115,464	\$18,192,557	\$18,269,650	\$18,346,743	\$18,346,743
Total Qualified Investment	\$78,500,113	\$78,928,405	\$79,356,697	\$79,784,989	\$80,213,281	\$80,641,573	\$81,069,865	\$81,498,157	\$81,926,449	\$82,354,741	\$82,783,033	\$83,211,325	\$83,639,617	\$83,639,617
•	2										(4	(95 001 500)	(05 151 000)	(85.454.000)
Less: Accumulated Depreciation	(\$3,453,535)	(\$3,617,052)	(\$3,781,465)	(\$3,946,775)	(\$4,112,981)	(\$4,280,084)	(\$4,448,083)	(\$4,616,978)	(\$4.786,769)	(\$4,957,457)	(\$5,129,041)	(\$5,301,522)	(\$5,474,899) \$78,164,718	\$5,474,899) \$78,164,718
Net Book Value	\$75,046,578	\$75,311,353	\$75,575,232	\$75,838,214	\$76,100,300	\$76,361,489	\$76,621,782	\$76,881,179	\$77,139,680	\$77,397,284	\$77,653,992	\$77,909,803	\$78,164,718	5/8,164,/18
	-									777 260 102	077 535 630	#77 701 007	P70 077 261	
Average Net Qualified Investment	-	\$75,178,966	\$75,443,292	\$75,706,723	\$75,969,257	\$76,230,894	\$76,491,636	\$76,751,481	\$77,010,429	\$77,268,482	\$77,525,638	\$//,/81,89/	\$78,037,261	-
Depreciation Rates		2.60%	2,60%	2.60%	2,60%	2.60%	2.60%	2.60%	2.60%	2,60%	2.60%	2.60%	2.60%	
Approved Depreciation Rate-Mains		2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2,70%	2.70%	2,70%	
Approved Depreciation Rate-Services		2.7070	2.7078	2.7070	2.7070	2.7070	2	-,,,,,,						
Return on Average Net Qualified Investment														
Equity - Cost of Capital, inclusive of Income Tax Gross-up		8,2300%	8.2300%	8.2300%	8.2300%	8.2300%	8.2300%	8.2300%	8.2300%	8.2300%	8.2300%	8,2300%	8.2300%	
Debt - Cost of Capital		1.5800%	1.5800%	1.5800%	1,5800%	1.5800%	1.5800%	1.5800%	1.5800%	1.5800%	1.5800%	1.5800%	1.5800%	
					e=a1 000	\$522.817	\$524,605	\$526,387	\$528,163	\$529,933	\$531.697	\$533,454	\$535,206	\$6,305,524
Equity Component - inclusive of Income Tax Gross-up		\$515,602	\$517,415 \$99,334	\$519,222 \$99,681	\$521,022 \$100,026	\$100,371	\$100,714	\$101,056	\$101,397	\$101,737	\$102,075	\$102,413	\$102,749	\$1,210,538
Debt Component	-	\$98,986 \$614.588	\$616,749	\$618,902	\$621,049	\$623,188	\$625,319	\$627,443	\$629,560	\$631,670	\$633,772	\$635,867	\$637,955	\$7,516,062
Return Requirement	=	3014,388	3010,742	\$010,702	4021,015	Ψ0225,700			THE STATE OF THE S				-	
Investment Expenses														
Depreciation Expense - Mains		\$124,318	\$125,041	\$125,764	\$126,487	\$127,210	\$127,933	\$128,656	\$129,379	\$130,102	\$130,824	\$131,547	\$132,270	\$1,539,532
Depreciation Expense - Services		\$39,199	\$39,372	\$39,546	\$39,719	\$39,892	\$40,066	\$40,239	\$40,413	\$40,586	\$40,760	\$40,933	\$41,107	\$481,832
Property Taxes		\$125,078	\$125,078	\$125,078	\$125,078	\$125,078	\$125,078	\$125,078	\$125,078	\$125,078	\$125,078	\$125,078	\$125,078	\$1,500,932
General Public Notice Expense & Customer Notice Expense	_	\$4,333	\$4,333	\$4,333	\$4,333	\$4,333	\$4,333	\$4,333	\$4,333	\$4,333	\$4,333	\$4,333	\$4,337	\$52,000
Total Expense	_	\$292,928	\$293,824	\$294,720	\$295,617	\$296,513	\$297,409	\$298,306	\$299,202	\$300,098	\$300,995	\$301,891	\$302,792	\$3,574,296
	_					## T	#022 HT2	6005 7110	@020.752	\$931,768	\$934,767	\$937,758	\$940,746	\$11,090,357
Total Revenue Requirements	-	\$907,516	\$910,573	\$913,623	\$916,665	\$919,701	\$922,729	\$925,749	\$928,762	\$731,168	\$734,707	1,136 روون	\$74U,14U	911,030,557
				0.00.000	0.00.71.0	#62.210	ec2 210	\$62,310	\$62,310	\$62,310	\$62,310	\$62,310	\$62,317	\$747,727
Annual Revenue Requirement for Bare Steel Replacement Investment		\$62,310	\$62,310	\$62,310	\$62,310 \$854.355	\$62,310 \$857,391	\$62,310 \$860,419	\$62,310 \$863,439	\$62,310	\$869,458	\$872,457	\$875,448	\$878,429	,
Net Annual Revenue Requirements		\$845,206	\$848,263	\$851,313	3804,000	\$657,391	3000,419	₽002,+39	\$600,432	\$000,400	9012,721	Φ075,140	40.10, 127	+-0,0 12,000

Gas Reliability Infrastructure Program (GRIP)
Projection of Qualified Mains & Services Revenue Requirements
Surcharge Calculation - January 1, 2017 through December 31, 2017
Per Therm Rate

Schedule D-1
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Michael Cassel (MC-1)
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1. 1/1/17-12/31/17 Qualified Mains & Services Replacement Revenue Requirements \$10,342,630 74% \$7,653,547 26% \$2,689,084 Services \$10,342,631 Net \$ 3,887,361 2. TRUE-UP from Prior Period (Over)/Under Recovery Estimated thru 12/2016 \$14,229,992 3. 2017 Qualified Mains & Services Replacement Revenue Requirements 74% \$10,530,194 Mains 26% \$3,699,798 Services \$14,229,992 Net

RATE SCHEDULE	2017 THERMS	SERVICES COS %	MAINS COS %	SERVICES REV REQ	MAINS REV REQ	GRIP REV REQ	DOLLARS PER THERM	TAX FACTOR	GRIP FACTORS PER THERM	TYPICAL ANNUAL THERMS	ANNUAL COST	AVERAGE MONTHLY COST
RESIDENTIAL	13,104,301	58.00%	22.00%	\$2,145,883	\$2,316,643	\$4,462,526	\$0.34054	1.00503	\$0.34225	250	\$85.56	\$7.13
COMMERCIAL SMALL (General Service & GS Transportation & NGVS &NGVTS)	12,827,793	17.00%	23.00%	\$628,966	\$2,421,945	\$3,050,910	\$0.23784	1.00503	\$0.23903	2,500	\$597.58	\$49.80
COMM, LRG VOLUME (Large Vol & LV Transportation)	45,693,710	25.00%	46.00%	\$924,950	\$4,843,889	\$5,768,839	\$0.12625	1.00503	\$0.12689	25,000	\$3,172.13	\$264.34
INTERRUPTIBLE SERVICE (Int Service & IS Transportation)	7,387,547	0.00%	8.00%	\$0	\$842,416	\$842,416	\$0.11403	1.00503	\$0.11461	50,000	\$5,730.27	\$477.52
GENERAL LIGHTING SERVICE	211,870	0.00%	1.00%	\$0	\$105,302	\$105,302	\$0.49701	1.00503	\$0.49951	500	\$249.76	\$20.81

TOTAL 79,225,221 100.00% 100.00% \$3,699,798 \$10,530,194 \$14,229,992

Florida Division of Chesapeake Utilities Corporation

Gas Reliability Infrastructure Program (GRIP) Calculation of Equity and Debt Returns Schedule A-1
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Earnings Surveillance Report - December 31, 2015

The state of the s	
Equity Cost Rate	10.80%
Weighted Equity Cost Rate	4.82%
Revenue Expansion Factor	1.6403
Weighted Equity Cost Rate , times Revenue Expansion Factor	7.906%
Long Term Debt-CU	0.970%
Short Term Debt	0.170%
Short Term Debt-Refinanced LTD	0.000%
Customer Deposits	0.040%
Tax Credits-Weighted Cost	0.000%
Weighted Debt Cost Rate	1.180%
Overall Weighted Cost Rate	6.00%
C	

Florida Division of Chesapeake Utilities Corporation

Gas Reliability Infrastructure Program (GRIP)
Calculation of the Actual Revenue Requirements
Seven Months Actual January 2015 through July 2015
Estimated August 2015 through December 2015

Schedule B-1
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Michael Cassel (MC-1)
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Estimated August 2015 through December 2015	_						4	A . do . m.I	4	Autom	Anteral	Actual	Actual	Actual	Year End
		Beginning	Actual	Actual Eab	Actual	Actual	Actual <u>May</u>	Actual <u>Jun</u>	Actual <u>Jul</u>	Actual <u>Aug</u>	Actual Sep	Oct	Nov	Dec	Total/Balance
Item Oualified Investment	•	Balance	<u>Jan</u>	<u>Feb</u>	Mar	Apr	<u>iviay</u>	<u>sun</u>	341	rug .	9ep	<u> </u>		2.22	
Qualified Investment - Mains - Current 1070 Activity			\$123,706	\$147,654	\$525,387	\$70,812	\$715,464	\$472,314	\$439,172	\$366,266	\$433,010	\$831,401	\$154,345	\$ 995,176	\$5,274,707
Qualified Investment - Mains - Closed 1070 Activity to Plant			(\$13,921)	(\$1,157,042)	(\$848,346)	(\$128,066)	(\$20,590)	(\$47,664)	(\$477,392)	(\$7,064)	(\$2,742)	(\$53,095)	(\$10,525)	\$ (3,781,502)	(\$6,547,949)
Qualified Investment - Services - Current 1070 Activity			(\$2,300)	\$6,740	(\$175)	\$143,737	\$3,277	\$105,307	\$19,810	\$26,794	\$22,855	\$17,644	\$2,178	\$ 71,480	\$417,348
Qualified Investment - Services - Closed 1070 Activity to Plant			\$2,300	(\$3,765)	(\$12,995)	(\$46,018)	(\$42,963)	(\$135,089)	(\$25,616)	(\$19,543)	(\$35,981)	(\$12,750)		\$ (67,477)	(\$413,345)
Qualified Investment - Mains - Current 1010 Activity			\$13,921	\$1,157,042	\$848,346	\$128,066	\$20,590	\$47,664	\$477,392	\$7,064	\$2,742	\$53,095	\$10,525	\$3,781,502	\$6,547,949
Qualified Investment - Services - Current 1010 Activity			(\$2,300)	\$3,765	\$12,995	\$46,018	\$42,963	\$135,089	\$25,616	\$19,543	\$35,981	\$12,750	\$13,447	\$67,477	\$413,345
T - 10 FG 17 Weige 1070		\$1,708,694	\$1,818,479	\$809,090	\$486,131	\$428,877	\$1,123,751	\$1,548,402	\$1,510,182	\$1,869,384	\$2,299,652	\$3,077,958	\$3,221,778	\$435,452	\$435,452
Total Qualified Investment - Mains 1070 Total Qualified Investment - Services 1070		(\$1)	(\$1)	\$2,974	(\$10,195)	\$87,523	\$47,837	\$18,054	\$12,248	\$19,500	\$6,374	\$11,268	(\$1)	\$4,002	\$4,002
Total Qualified Investment - Services 1070 Total Qualified Investment - Mains 1010		\$8,251,273	\$8,265,194	\$9,422,236		\$10,398,648	\$10,419,238	\$10,466,902	\$10,944,294	\$10,951,358	\$10,954,100	\$11,007,194	\$11,017,719	\$14,799,222	\$14,799,222
Total Qualified Investment - Services 1010		\$639,153	\$636,853	\$640,618	\$653,613	\$699,631	\$742,594	\$877,683	\$903,299	\$922,842	\$958,823	\$971,574	\$985,021	\$1,052,498	\$1,052,498
Total Qualified Investment	\$	10,599,119	\$10,720,525	\$10,874,919	\$11,400,131	\$11,614,679	\$12,333,420	\$12,911,041	\$13,370,023	\$13,763,083	\$14,218,949	\$15,067,994	\$15,224,517	\$16,291,174	\$16,291,174
Less: Accumulated Depreciation 1080		(\$243,858)	(\$263,174)	(\$282,515)	(\$304,371)	(\$328,095)	(\$352,199)	(\$376,445)	(\$401,098)	(\$426,843)	(\$452,647)	(\$478,538)	(\$504,573)	(\$530,661)	(\$530,661)
Net Book Value	\$	10,355,261	\$10,457,351	\$10,592,404	\$11,095,760	\$11,286,584	\$11,981,221	\$12,534,596	\$12,968,925	\$13,336,240	\$13,766,302	\$14,589,456	\$14,719,944	\$15,760,513	\$15,760,513
		=											#1.4.CE.4.ECO	215 242 222	
Average Net Qualified Investment			\$10,406,306	\$10,524,877	\$10,844,082	\$11,191,172	\$11,633,903	\$12,257,909	\$12,751,761	\$13,152,583	\$13,551,271	\$14,177,879	\$14,654,700	\$15,240,228	
Depreciation Rates			2.60%	2.60%	2,60%	2,60%	2.60%	2.60%	2.60%	2,60%	2.60%	2.60%	2,60%	2.60%	
Approved Depreciation Rate-Mains			2.70%	2.70%	2,70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2,70%	2.70%	2.70%	
Approved Depreciation Rate-Services			2.7076	2.7070	2,7070	2.7070	2,,								
Return on Average Net Qualified Investment															
Equity - Cost of Capital, inclusive of Income Tax Gross-up			7.9400%	7.9400%	7.9400%	7.9400%	7.9400%	7.9400%	7.9400%	7.9400%	7.9400%	7.9400%	7.9400%	7.9400%	
Debt - Cost of Capital			1.3900%	1.3900%	1.3900%	1.3900%	1.3900%	1.3900%	1.3900%	1,3900%	1.3900%	1.3900%	1.3900%	1.3900%	
								## TO 6		F07.006	P00 ((4	E02 810	\$96,965	\$100,840	\$995,058
Equity Component - inclusive of Income Tax Gross-up			\$68,855	\$69,640	\$71,752	\$74,048	\$76,978 \$13,476	\$81,106 \$14,199	\$84,374 \$14,771	\$87,026 \$15,235	\$89,664 \$15,697	\$93,810 \$16,423	\$90,903 \$16,975	\$100,840	\$174,198
Debt Component			\$12,054 \$80,909	\$12,191 \$81,831	\$12,561 \$84,313	\$12,963 \$87.011	\$13,476	\$95,305	\$99,145	\$102,261	\$105,361	\$110,233	\$113,940	\$118,493	\$1,169,256
Return Requirement			\$80,505	\$61,651	\$64,515	307,011	\$50,151	\$23,505	V1,1,10	*****,				-	
Investment Expenses															
Depreciation Expense - Mains			\$17,878	\$17,908	\$20,415	\$22,253	\$22,530	\$22,575	\$22,678	\$23,713	\$23,728	\$23,734	\$23,849	\$23,872	\$265,133
Depreciation Expense - Services			\$1,438	\$1,433	\$1,441	\$1,471	\$1,574	\$1,671	\$1,975	\$2,032	\$2,076	\$2,157	\$2,186	\$2,216	\$21,670
Property Taxes		2.00%	\$17,259	\$17,259	\$17,259	\$17,259	\$17,259	\$17,259	\$17,259	\$17,259	\$17,259	\$17,259	\$17,259	\$17,259	\$207,108
General Public Notice and Customer Notice Expense			(\$711)	\$4,137	\$3,859	\$6,629	\$0	\$5,651	\$0	\$907	\$937	\$4,937			\$26,347 \$0
															\$0
			\$35,864	\$40,737	\$42,974	\$47,612	\$41,363	\$47,156	\$41,912	\$43,911	\$44,000	\$48,087	\$43,294	\$43,347	\$520,258
Total Expense			\$33,804	\$40,737	\$42,974	\$47,012	\$41,303	\$47,150	\$41,712	Ψ75,511	\$11,000	\$10,001	<u> </u>		
N. D. C.			\$116,773	\$122,568	\$127,287	\$134,623	\$131,817	\$142,461	\$141,057	\$146,172	\$149,361	\$158,320	\$157,234	\$161,840	\$1,689,514
Net Revenue Requirements		:	3110,773	\$122,500	3127,207	415 1,025	4151,511								
GRIP Surcharge Revenues Collected Month			\$ 162,428	\$ 169,594	\$ 161,829	\$ 149,591	\$ 145 ₋ 847	\$ 140,796	\$ 137,816	\$ 125,995	\$ 137,432	\$ 147,441	\$ 139,271	\$ 157,335	\$1,775,375
GRIF Surcharge Revenues Conceted Month			,	,	,	,	,								
Beginning True-Up															\$ 211,175
(Over) and Under Recovery for the Month			\$ (45,655)										\$ 17,963		(\$85,861)
Monthly Interest (Expense)/Income			\$ 13	\$ 10			-	Ψ	\$ 4		\$ 8			\$ 25 \$ 125,419	\$105 \$ 125,419
Ending (Over) and Under Recovery		211,175	\$ 165,533	\$ 118,517	\$ 83,981	\$ 69,018	\$ 54,992	\$ 56,661	\$ 59,906	\$ 80,089	\$ 92,026	\$ 102,915	3 120,889	a 123,419	g 123,419
			0.000/	0.000/	0.08%	0.06%	0.08%	0.09%	0.09%	0.08%	0.10%	0.12%	0.09%	0.15%	
Beg of Month Annual Interest Rate			0.08%	0.09% 0.08%	0.08%	0.08%	0.08%	0.09%	0.09%	0.08%	0.10%	0.09%	0.15%	0,34%	
End of Month Annual Interest Rate			0.09%	0.08%	0.00%	0.08%	0.03%	0.01%	0.007%	0.008%	0.009%	0.009%	0.010%	0,020%	
Average Monthly Interest Rate			0.0178	0.0170	5.5170	0.0170									

Florida Division of Chesapeake Utilities Corporation Gas Reliability Infrastructure Program (GRIP)

Gas Reliability Infrastructure Program (GRIP)
Calculation of the Projected Revenue Requirements
January 1, 2016 through December 31, 2016

Schedule C-1
Exhibit
Michael Cassel (MC-1)
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	Beginning Balance	ACTUAL <u>Jan</u>	ACTUAL <u>Feb</u>	ACTUAL <u>Mar</u>	ACTUAL <u>Apr</u>	ACTUAL <u>May</u>	ACTUAL Jun	ACTUAL Jul	PROJECTED Aug	PROJECTED Sep	PROJECTED Oct	PROJECTED Nov	PROJECTED <u>Dec</u>	Year End <u>Total</u>
Qualified Investment				0518150	0074 474	0.000.000	\$642,993	\$581.202	\$344,709	\$344,709	\$344,709	\$344,709	\$344,709	\$4,913,956
Qualified Investment - Mains - Current 1070 Activity		\$102,103	\$405,306	\$517,168	\$274,634 (\$33,394)	\$667,005	\$642,993 (\$210,564)	\$581,202 (\$553,404)	\$344,709 (\$327,474)	(\$327,474)	(\$327,474)	(\$327,474)	(\$327,474)	(\$2.965.728)
Qualified Investment - Mains - Closed 1070 Activity to Plant Qualified Investment - Services - Current 1070 Activity		(\$141,194) \$12,238	(\$199,112) \$55,112	(\$190,692) \$55,583	\$46,307	\$46,477	\$26,705	\$54,751	\$25,946	\$25,946	\$25,946	\$25,946	\$25,946	\$426,903
Oualified Investment - Services - Closed 1070 Activity to Plant		(\$12,238)	(\$19,049)	(\$82,108)	(\$23,567)	\$10,177	(\$89,402)	(\$28,391)	(\$25,946)	(\$25,946)	(\$25,946)	(\$25,946)	(\$25,946)	(\$384,483)
Qualified Investment - Mains - Current 1010 Activity		\$141.194	\$199,112	\$190,692	\$33,394	\$0	\$210,564	\$553,404	\$327,474	\$327,474	\$327,474	\$327,474	\$327,474	\$2,965,728
Qualified Investment - Services - Current 1010 Activity		\$12,238	\$19,049	\$82,108	\$23,567	\$0	\$89,402	\$28,391	\$25,946	\$25,946	\$25,946	\$25,946	\$25,946	\$384,483
Total Qualified Investment - Mains 1070	\$435,452	\$396,360	\$602,555	\$929,031	\$1,170,270	\$1,837,276	\$2,269,705	\$2,297,502	\$2,314,738	\$2,331,973	\$2,349,209	\$2,366,444	\$2,383,679	\$2,383,679
Total Qualified Investment - Services 1070	\$4,002	\$4,002	\$40,065	\$13,541	\$36,281	\$82,758	\$20,061	\$46,421	\$46,421	\$46,421	\$46,421	\$46,421	\$46,421	\$46,421
Total Qualified Investment - Mains 1010	\$14,799,222	\$14,940,416	\$15,139,527	\$15,330,220	\$15,363,614	\$15,363,614	\$15,574,177			\$16,782,529	\$17,110,003	\$17,437,477	\$17,764,950	\$17,764,950
Total Qualified Investment - Services 1010	\$1,052,498	\$1,064,736	\$1,083,785	\$1,165,893	\$1,189,459	\$1,189,459	\$1,278,861	\$1,307,252	\$1,333,198	\$1,359,144	\$1,385,090	\$1,411,036	\$1,436,981	\$1,436,981
Total Qualified Investment	\$16,291,174	\$16,405,514	\$16,865,933	\$17,438,684	\$17,759,625	\$18,473,107	\$19,142,804	\$19,778,757	\$20,149,412	\$20,520,067	\$20,890,722	\$21,261,377	\$21,632,032	\$21,632,032
Less: Accumulated Depreciation	(\$530,661)	(\$565,094)	(\$599,861)	(\$635,102)	(\$670,940)	(\$706,904)	(\$742,868)	(\$779,489)	(\$817,373)	(\$856,026)	(\$895,446)	(\$935,634)	(\$976,590)	(\$976,590)
Net Book Value	\$15,760,513	\$15,840,420	\$16,266,072	\$16,803,582	\$17,088,685	\$17,766,203	\$18,399,936	\$18,999,268	\$19,332,039	\$19,664,041	\$19,995,276	\$20,325,743	\$20,655,442	\$20,655,442
761 2001 1441														:
Average Net Qualified Investment	_	\$15,800,467	\$16,053,246	\$16,534,827	\$16,946,133	\$17,427,444	\$18,083,069	\$18,699,602	\$19,165,654	\$19,498,040	\$19,829,659	\$20,160,510	\$20,490,593	
Depreciation Rates														
Approved Depreciation Rate-Mains		2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	
Approved Depreciation Rate-Services		2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2,70%	
Return on Average Net Qualified Investment														
Equity - Cost of Capital, inclusive of Income Tax Gross-up		7.9060%	7.9060%	7.9060%	7.9060%	7.9060%	7.9060%	7.9060%	7.9060%	7.9060%	7.9060%	7.9060%	7,9060%	
Debt - Cost of Capital		1.1800%	1.1800%	1.1800%	1.1800%	1.1800%	1.1800%	1.1800%	1.1800%	1.1800%	1.1800%	1.1800%	1.1800%	
Equity Component - inclusive of Income Tax Gross-up		\$104,099	\$105,764	\$108,937	\$111,647	\$114,818	\$119,137	\$123,199	\$126,270	\$128,460	\$130,644	\$132,824	\$134,999	\$1,440,798
Debt Component		\$15,537	\$15,786	\$16,259	\$16,664	\$17,137	\$17,782	\$18,388	\$18,846	\$19,173	\$19,499	\$19,825	\$20,149	\$215,044
Return Requirement	=	\$119,636	\$121,550	\$125,196	\$128,310	\$131,955	\$136,919	\$141,587	\$145,116	\$147,633	\$150,144	\$152,649	\$155,148	\$1,655,842
Investment Expenses														
Depreciation Expense - Mains		\$32,065	\$32,371	\$32,802	\$33,215	\$33,288	\$33,288	\$33,744	\$34,943	\$35,653	\$36,362	\$37,072	\$37,781	\$412,584
Depreciation Expense - Services		\$2,368	\$2,396	\$2,439	\$2,623	\$2,676	\$2,676	\$2,877	\$2,941	\$3,000	\$3,058 \$26,268	\$3,116 \$26,268	\$3,175 \$26,268	\$33,345 \$315,216
Property Taxes		\$26,268	\$26,268	\$26,268	\$26,268 \$449	\$26,268 \$3,825	\$26,268	\$26,268 \$0	\$26,268 \$0	\$26,268 \$0	\$26,268 \$0	\$20,268	\$20,208	\$7,718
General Public Notice Expense and Customer Notice Expense	-	\$60.701	\$3,445 \$64,480	\$61,509	\$62,555	\$66,057	\$62,232	\$62,889	\$64,152	\$64,921	\$65,688	\$66,456	\$67,224	\$768,863
Total Expense		300,701	\$04,400	\$61,565	302,555	\$30,007								
Total Revenue Requirements	* =	\$180,337	\$186,030	\$186,705	\$190,865	\$198,011	\$199,151	\$204,476	\$209,268	\$212,554	\$215,832	\$219,105	\$222,372	\$2,424,705
GRIP Surcharge Revenues Collected Month		\$ 250,285	\$ 247,074	\$ 240,794	\$ 220,518	\$ 199,295	\$ 183,434	\$ 188,574	\$ 125,995	\$ 137,432	\$ 147,441	\$ 139,271	\$ 157,335	\$2,237,448
Beginning True-Up														\$ 125,419
(Over) and Under Recovery for the Month		, ,		, , ,	\$ (29,653)			\$ 15,902 \$ (20)	,			\$ 79,834 \$ 60	\$ 65,037 \$ 81	\$187,257 \$121
Monthly Interest (Expense)/Income				\$ (9) \$ (59,640)										
Ending (Over) and Under Recovery	\$ 125,419	3 33,495	\$ (5,542)	3 (39,040)	a (67,314)	⇒ (50,023)	u (17,234)	ψ (37,03Z)	u 27,410	4 //,555	4 101,100	- 2,077		
Beg of Month Annual Interest Rate		0.34%	0.34%	0.35%	0.32%	0.36%	0.38%	0.36%	0.35%	0.35%	0.35%	0.35%	0.35%	
End of Month Annual Interest Rate		0.34%	0.35%	0.32%	0.36%	0.38%	0.36%	0.35%	0.35%	0.35%	0.35%	0.35%	0.35%	
Average Monthly Interest Rate		0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	

Florida Division of Chesapeake Utilities Corporation

Gas Reliability Infrastructure Program (GRIP)
Calculation of the Projected Revenue Requirements
January 1, 2017 through December 31, 2017

Schedule C-2
Exhibit_____
Michael Cassel (MC-1)
Page 9 of 14

<u>Item</u>	Beginning Balance	Jan	<u>Feb</u>	<u>Mar</u>	Apr	May	<u>Jun</u>	<u>Jul</u>	Aug	Sep	<u>Oct</u>	Nov	<u>Dec</u>	Year End Total
Qualified Investment														
Qualified Investment - Mains - Current 1070 Activity		\$125,783	\$125,783	\$125,783	\$125,783	\$125,783	\$125,783	\$125,783	\$125,783	\$125,783	\$125,783	\$125,783	\$125,783	\$1,509,396
Qualified Investment - Mains - Closed 1070 Activity to Plant		(\$119,494)	(\$119,494)	(\$119,494)	(\$119,494)	(\$119,494)	(\$119,494)	(\$119,494)	(\$119,494)	(\$119,494)	(\$119,494)	(\$119,494)	(\$119,494)	(\$1,433,928)
Qualified Investment - Services - Current 1070 Activity		\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$113,616
Qualified Investment - Services - Closed 1070 Activity to Plant		(\$9,468)	(\$9,468)	(\$9,468)	(\$9,468)	(\$9,468)	(\$9,468)	(\$9,468)	(\$9,468)	(\$9,468)	(\$9,468)	(\$9,468)	(\$9,468)	(\$113,616)
Qualified Investment - Mains - Current 1010 Activity		\$119,494	\$119,494	\$119,494	\$119,494	\$119,494	\$119,494	\$119,494	\$119,494	\$119,494	\$119,494	\$119,494	\$119,494	\$1,433,928
Qualified Investment - Services - Current 1010 Activity		\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$113,616
Total Qualified Investment - Mains 1070	\$2,383,679	\$2,389,968	\$2,396,257	\$2,402,546	\$2,408,835	\$2,415,124	\$2,421,413	\$2,427,702	\$2,433,991	\$2,440,280	\$2,446,569	\$2,452,858	\$2,459,147	\$2,459,147
Total Qualified Investment - Services 1070	\$46,421	\$46,421	\$46,421	\$46,421	\$46,421	\$46,421	\$46,421	\$46,421	\$46,421	\$46,421	\$46,421	\$46,421	\$46,421	\$46,421
Total Qualified Investment - Mains 1010	\$17,764,950	\$17,884,444	\$18,003,938	\$18,123,432	\$18,242,926	\$18,362,420	\$18,481,914	\$18,601,408	\$18,720,902	\$18,840,396	\$18,959,890	\$19,079,384	\$19,198,878	\$19,198,878
Total Qualified Investment - Services 1010	\$1,436,981	\$1,446,449	\$1,455,917	\$1,465,385	\$1,474,853	\$1,484,321	\$1,493,789	\$1,503,257	\$1,512,725	\$1,522,193	\$1,531,661	\$1,541,129	\$1,550,597	\$1,550,597
Total Qualified Investment	\$21,632,032	\$21,767,283	\$21,902,534	\$22,037,785	\$22,173,036	\$22,308,287	\$22,443,538	\$22,578,789	\$22,714,040	\$22,849,291	\$22,984,542	\$23,119,793	\$23,255,044	\$23,255,044
Less: Accumulated Depreciation	(\$976.590)	(\$1.018.314)	(\$1.060.319)	(\$1.102.604)	(\$1,145,168)	(\$1,188,012)	(\$1,231,137)	(\$1,274,542)	(\$1,318,227)	(\$1,362,193)	(\$1,406,439)	(\$1,450,965)	(\$1,495,772)	(\$1,495,772)
Net Book Value	\$20,655,442	\$20,748,969			\$21,027.868			\$21,304,247		\$21,487,098	\$21,578,103	\$21,668,828		
Average Net Qualified Investment	: -	\$20,702,206	\$20,795,592	\$20,888,698	\$20,981,525	\$21,074,072	\$21,166,338	\$21,258,324	\$21,350,030	\$21,441,456	\$21,532,601	\$21,623,466	\$21,714,050	
Depreciation Rates														
Approved Depreciation Rate-Mains		2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2,60%	2,60%	2.60%	
Approved Depreciation Rate-Services		2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	
Return on Average Net Qualified Investment														
Equity - Cost of Capital, inclusive of Income Tax Gross-up		7.9060%	7.9060%	7,9060%	7.9060%	7.9060%	7.9060%	7.9060%	7.9060%	7.9060%	7.9060%	7.9060%	7.9060%	
Debt - Cost of Capital		1.1800%	1.1800%	1.1800%	1.1800%	1.1800%	1,1800%	1,1800%	1,1800%	1.1800%	1.1800%	1.1800%	1.1800%	
Equity Component - inclusive of Income Tax Gross-up		\$136,393	\$137,008	\$137,622	\$138,233	\$138,843	\$139,451	\$140,057	\$140,661	\$141,263	\$141,864	\$142,463	\$143,059	\$1,676,918
Debt Component		\$20,357	\$20,449	\$20,541	\$20,632	\$20,723	\$20,814	\$20,904	\$20,994	\$21,084	\$21,174	\$21,263	\$21,352	\$250,286
Return Requirement		\$156,750	\$157,457	\$158,162	\$158,865	\$159,566	\$160,264	\$160,961	\$161,655	\$162,348	\$163,038	\$163,726	\$164,412	\$1,927,204
Investment Expenses														
Depreciation Expense - Mains		\$38,491	\$38,750	\$39,009	\$39,267	\$39,526	\$39,785	\$40,044	\$40,303	\$40,562	\$40,821	\$41,080	\$41,339	\$478,977
Depreciation Expense - Services		\$3,233	\$3,255	\$3,276	\$3,297	\$3,318	\$3,340	\$3,361	\$3,382	\$3,404	\$3,425	\$3,446	\$3,468	\$40,205
Property Taxes		\$34,426	\$34,426	\$34,426	\$34,426	\$34,426	\$34,426	\$34,426	\$34,426	\$34,426	\$34,426	\$34,426	\$34,426	\$413,112
General Public Notice Expense and Customer Notice Expense		\$1,500 \$77,650	\$1,500	\$1,500 \$78,211	\$1,500 \$78,490	\$1,500 \$78,770	\$1,500 \$79.051	\$1,500 \$79,331	\$1,500 \$79.611	\$1,500 \$79,892	\$1,500 \$80,172	\$1,500 \$80,452	\$1,500 \$80,733	\$18,000 \$950,294
Total Expense		\$/7,630	\$77,931	\$/8,211	3/8,490	\$/8,//0	\$79,031	\$79,331	110,814	\$79,892	\$60.172	360,432	\$60,733	\$750,294
Total Revenue Requirements	-	\$234,400	\$235,388	\$236,373	\$237,355	\$238,336	\$239,315	\$240,292	\$241,266	\$242,240	\$243,210	\$244,178	\$245,145	\$2,877,498

Florida Division of Chesapeake Utilities Corporation

Gas Reliability Infrastructure Program (GRIP) Projection of Qualified Mains & Services Revenue Requirements Surcharge Calculation - January 1, 2017 through December 31, 2017 Per Therm/Bill Rate

Schedule D-1 Exhibit Michael Cassel (MC-1) Page 10 of 14

\$ 2,877,498 1/1/17-12/31/17 Qualified Mains & Services Replacement Revenue Requirements

96% \$2,762,398 Mains

4% \$115,100 Services \$2,877,498 Net

TRUE-UP from Prior Period (Over)/Under Recovery Estimated thru 12/2016 \$ 312,797

2017 Qualified Mains & Services Replacement Revenue Requirements \$ 3,190,295

96% \$3,062,683 Mains 4% \$127,612 \$3,190,295 Services

Net						\$3,190,295	=											
RATE CLASS	2017 BILLS	2017 THERMS	SERVICES COS %	MAINS COS %	SERVICES REV REQ	MAINS REV REQ	GRIP REV REQ	DOLLARS PER THERM	EXPANSION FACTOR				EXPANSION FACTOR	Experimental GRIP FACTORS PER BILL	ANNUAL COST PER BILL	TYPICAL ANNUAL THERMS	ANNUAL COST	AVERAGE MONTHLY COST
FTS-A	16,295	105,175	14.34%	0.951%	\$ 18,300	\$ 29,126	\$47,426	\$0.45092	1,00503	\$ 0,453	9 \$:	2.91	1.00503	\$ 2.93	\$ 35.10	110	\$49.85	\$4.15
FTS-B	27,867	312,933	9.74%	1,142%	ŕ	•	\$47,405		1 00503	\$ 0.1523	5 S	1.70	1.00503	\$ 1.71	\$ 20.52	215	\$32,73	\$2.73
	ŕ	,	33.87%	5.861%	•		\$222,726			\$ 0.103			1,00503		\$ 20.38	275	\$28,52	\$2,38
FTS-1	131,776	2,158,434			,	•	,								\$ 80.14	875	\$97.74	\$8.14
FTS-2	9,862	589,648	12.69%	1.611%	\$ 16,194	\$ 49,340	\$65,534	\$0,11114	1,00503	\$ 0.111	0 \$	0.03	1.00503	φ 0.08	3 60.14	913	391.14	J0.14
FTS-2.1	8,277	949,743	7.83%	3.193%	\$ 9,992	\$ 97,791	\$107,783	\$0.11349	1.00503	\$ 0.114	6 \$ 1	3.02	1.00503	\$ 13.09	\$ 157.05	1,575	\$179.64	\$14.97
FTS-3	3,401	1,176,678	3.93%	1.567%	\$ 5,015	\$ 47,992	\$53,007	\$0.04505	1.00503	\$ 0.045	7 \$ 1	5.59	1.00503	\$ 15.66	\$ 187.97	4,000	\$181.10	\$15.09
FTS-3.1	3,810	2,275,311	3.91%	4.294%	\$ 4,990	\$ 131,512	\$136,502	\$0.05999	1.00503	\$ 0.060	9 \$ 3	5.83	1.00503	\$ 36.01	\$ 432.09	7,300	\$440.15	\$36.68
FTS-4		2,699,940	4.37%	6.162%	\$ 5,577	\$ 188,723	\$194,300	\$0.07196	1.00503	\$ 0.072	3					12,500	\$904.08	\$75.34
FTS-5		1,077,421	1.24%	2,570%	\$ 1,582	\$ 78,711	\$80,293	\$0.07452	1.00503	\$ 0.074	0					37,500	\$2,808.68	\$234.06
FTS-6		1,450,400	1.25%	2.750%	\$ 1,595	\$ 84,224	\$85,819	\$0.05917	1,00503	\$ 0.059	17					75,000	\$4,460.01	\$371.67
FTS-7		2,913,398	2.20%	7.615%	\$ 2,807	\$ 233,223	\$236,030	\$0.08102	1.00503	\$ 0.081	12					150,000	\$12,213.43	\$1,017.79
		, ,			-	•												
FTS-8		5,130,600	1.62%	10.708%	\$ 2,067	\$ 327,952	\$330,019	\$0.06432	1.00503	\$ 0.064						300,000	\$19,394.16	\$1,616.18
FTS-9		3,212,361	1.48%	15.171%	\$ 1,889	\$ 464,640	\$466,529	\$0.14523	1.00503	\$ 0.145	96					550,000	\$80,277.90	\$6,689.83
FTS-10		2,166,309	0.45%	6,539%	\$ 574	\$ 200,269	\$200,843	\$0.09271	1.00503	\$ 0.093	.8					850,000	\$79,201.65	\$6,600.14
FTS-11		7,632,263	0.61%	13.551%	\$ 778	\$ 415,024	\$415,802	\$0.05448	3 1.00503	\$ 0.054	75					1,750,000	\$95,818.71	\$7,984.89
FTS-12		13,439,528	0.47%	16.315%	\$ 600	\$ 499,677	\$500,277	\$0.03722	2 1.00503	\$ 0.037	11					3,000,000	\$112,234.61	\$9,352.88
FTS-13		N/A	N/A	0.000%	\$ -	\$ -	\$0) N/A		N/A						-	N/A	
TOTAL	201,288	47,290,142	100.00%	100.000%	\$ 127,612	\$ 3,062,683	\$ 3,190,295	=										

Florida Public Utilities Company -Ft. Meade

Gas Reliability Infrastructure Program (GRIP)
Investment and Calculation of Equity and Debt Returns

Schedule A-1
Exhibit
Michael Cassel (MC-1)
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	# of Services	Cost per Service	Projected Total Investment	
Earnings Surveillance Report - December 31, 2	2015			
Equity Cost Rate			11.00%	
Weighted Equity Cost Rate			4.27%	
Revenue Expansion Factor			1.6401	
Weighted Equity Cost Rate, time	s Revenue Expansion Fac	tor	7.000%	
Long Term Debt-CU			0.840%	
Short Term Debt			0.150%	
Short Term Debt-Refinanced LTI)		0.000%	
Customer Deposits			0.080%	
Tax Credits-Weighted Cost			0.000%	
Weighted Debt Cost Rate			1.070%	
Overall Weighted Cost Rate			5.34%	

Florida Public Utilities-Ft. Meade

Gas Reliability Infrastructure Program (GRIP)
Calculation of the Projected Revenue Requirements
January 1, 2016 through December 31, 2016

Schedule C-1
Exhibit____
Michael Cassel (MC-1)
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Item	Beginning Balance	ACTUAL · <u>Jan</u>	ACTUAL Feb	ACTUAL <u>Mar</u>	ACTUAL · Apr	ACTUAL May	ACTUAL Jun	ACTUAL ·	PROJECTED Aug	PROJECTED Sep	PROJECTED ·	PROJECTED Nov	PROJECTED <u>Dec</u>	Year End Total
Qualified Investment														
Qualified Investment - Mains - Current 1070 Activity		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0	\$0	\$0	\$0	\$0 .	\$0 \$0
Qualified Investment - Mains - Closed 1070 Activity to Plant Qualified Investment - Services - Current 1070 Activity		\$0 \$0	\$0 \$0	\$0	\$0	\$0	\$0	\$0	\$39,583	\$39,583	\$39,583	\$39,583	\$39,583	\$197,915
Qualified Investment - Services - Closed 1070 Activity to Plant		\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$39,583)	(\$39,583)	(\$39,583)	(\$39,583)	(\$39,583)	(\$197,915)
Qualified Investment - Mains - Current 1010 Activity		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Qualified Investment - Services - Current 1010 Activity		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$39,583	\$39,583	\$39,583	\$39,583	\$39,583	\$197,915
Total Qualified Investment - Mains 1070	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Qualified Investment - Services 1070	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Qualified Investment - Mains 1010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Qualified Investment - Services 1010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$39,583	\$79,166	\$118,749	\$158,332	\$197,915	\$197,915
Total Qualified Investment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$39,583	\$79,166	\$118,749	\$158,332	\$197,915	\$197,915
Less: Accumulated Depreciation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$89)	(\$267)	(\$534)	(\$890)	(\$890)
Net Book Value	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$39,583	\$79,077	\$118,482	\$157,798	\$197_025	\$197,025
THE BOOK TERMS							*-							
Average Net Qualified Investment	=	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$19,792	\$59,330	\$98,780	\$138,140	\$177,412	
Depreciation Rates														
Approved Depreciation Rate-Mains		2.60%	2.60%	2.60%	2.60%	2,60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	
Approved Depreciation Rate-Services		2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2,70%	2.70%	
Return on Average Net Qualified Investment														
Equity - Cost of Capital, inclusive of Income Tax Gross-up		7.0000%	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%	7,0000%	
Debt - Cost of Capital		1.0700%	1.0700%	1.0700%	1.0700%	1.0700%	1.0700%	1.0700%	1.0700%	1.0700%	1.0700%	1,0700%	1.0700%	
Equity Component - inclusive of Income Tax Gross-up		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$115	\$346	\$576	\$806	\$1,035	\$2,878
Debt Component		\$0	\$0	\$0	\$0	\$0	\$0	-\$0	\$18	\$53	\$88	\$123	\$158	\$440
Return Requirement		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$133	\$399	\$664	\$929	\$1,193	\$3,318
Investment Expenses														
Depreciation Expense - Mains		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Depreciation Expense - Services		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$89	\$178	\$267	\$356	\$890
Property Taxes		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
General Public Notice Expense and Customer Notice Expense	******	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Expense		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$89	\$178	\$267	\$356	\$890
Total Revenue Requirements	_	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$133	\$488	\$842	\$1,196	\$1,549	\$4,208
GRIP Surcharge Revenues Collected Month														\$0
Beginning True-Up														s -
(Over) and Under Recovery for the Month	\$	- 5	- 5	- \$	- \$	- S	- \$	- :	\$ 133	\$ 488	\$ 842	\$ 1,196		\$4,208
Monthly Interest (Expense)/Income	\$	_ (- \$							\$ 1	\$ 1	\$2
Ending (Over) and Under Recovery	\$	- :	- 5	- \$	- \$	- \$	- \$	3 - :	\$ 133	\$ 621	\$ 1,463	\$ 2,660	\$ 4,210	\$ 4,210
Beg of Month Annual Interest Rate		0.34%	0.34%	0.35%	0.32%	0.36%	0.38%	0,36%	0,35%	0,35%	0,35%	0,35%	0.35%	
End of Month Annual Interest Rate		0.34%	0.35%	0.32%	0.36%	0.38%	0.36%	0.35%	0.35%	0.35%	0.35%	0.35%	0.35%	
Average Monthly Interest Rate		0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	
= *														

Florida Public Utilities-Ft. Meade

Gas Reliability Infrastructure Program (GRIP)
Calculation of the Projected Revenue Requirements
January 1, 2017 through December 31, 2017

Schedule C-2
Exhibit
Michael Cassel (MC-1)
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	Beginning Balance	<u>Jan</u>	Feb	Mar	Арг	<u>Mav</u>	Jun	<u>Jul</u>	Aug	Sep	Oct	Nov.	Dec	Year End Total
Item Oualified Investment	Dalance	3411	1.00		1191					_				
Ouglified Investment - Mains - Current 1070 Activity		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Qualified Investment - Mains - Closed 1070 Activity to Plant		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Ouglified Investment - Services - Current 1070 Activity		\$39,583	\$39,583	\$39,583	\$39,583	\$39,583	\$39,583	\$39,583	\$0	\$0	\$0	\$0	\$0	\$277,081
Qualified Investment - Services - Closed 1070 Activity to Plant		(\$39,583)	(\$39,583)	(\$39,583)	(\$39,583)	(\$39,583)	(\$39,583)	(\$39,583)	\$0	\$0	\$0	\$0	\$0	(\$277,081)
Qualified Investment - Mains - Current 1010 Activity		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Qualified Investment - Services - Current 1010 Activity		\$39,583	\$39,583	\$39,583	\$39,583	\$39,583	\$39,583	\$39,583	\$0	\$0	\$0	\$0	\$0	\$277,081
Zamina 1														
Total Qualified Investment - Mains 1070	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0
Total Qualified Investment - Services 1070	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0 \$0	\$0	\$0
Total Qualified Investment - Mains 1010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	* .		
Total Qualified Investment - Services 1010	\$197,915	\$237,498	\$277,081	\$316,664	\$356,247	\$395,830	\$435,413	\$474,996	\$474,996	\$474,996 \$474,996	\$474,996 \$474,996	\$474,996 \$474,996	\$474,996 \$474,996	\$474,996 \$474.996
Total Qualified Investment	\$197,915	\$237,498	\$277,081	\$316,664	\$356,247	\$395,830	\$435,413	\$474,996	\$474,996	\$474,996	\$474,996	\$474,990	\$474,996	3474,990
					(*** ***	(0.000)	(\$4.897)	(\$5,877)	(\$6,946)	(\$8,015)	(\$9,084)	(\$10,153)	(\$11,222)	(\$11,222)
Less: Accumulated Depreciation	(\$890)	(\$1,335)	(\$1,869)	(\$2,492) \$314,172	(\$3,204) \$353.043	(\$4,006) \$391,824	\$430.516	\$469,119	\$468,050	\$466,981	\$465,912	\$464,843	\$463,774	\$463,774
Net Book Value	\$197,025	\$236,163	\$275 ₇ 212	3314,172	\$333,043	\$391,024	\$430,310	\$407,117	3400,000	3400,781	ψ105,712	\$101,015	\$105,111	4105,771
	_	## 1 C FO 4	#0.55 (00)	8204 602	\$333,608	\$372,434	\$411.170	\$449,818	\$468,585	\$467,516	\$466,447	\$465,378	\$464,309	
Average Net Qualified Investment	=	\$216,594	\$255,688	\$294,692	\$333,000	\$372,434	\$411,170	φ442,010	\$100,505	\$107,510	4100,111	\$100,010	41-1,4-1	
Depreciation Rates									a con/	5.609/	2.400/	2 (09/	2.60%	
Approved Depreciation Rate-Mains		2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60% 2.70%	2.60% 2.70%	2.60% 2.70%	2.70%	
Approved Depreciation Rate-Services		2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2,70%	2.70%	
Return on Average Net Qualified Investment												# 0000m/	7.00000/	
Equity - Cost of Capital, inclusive of Income Tax Gross-up		7.0000%	7.0000%	7.0000%	7,0000%	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%	
Debt - Cost of Capital		1.0700%	1.0700%	1.0700%	1.0700%	1.0700%	1,0700%	1.0700%	1.0700%	1,0700%	1.0700%	1.0700%	1,0700%	
Equity Component - inclusive of Income Tax Gross-up		\$1,263	\$1,492	\$1,719	\$1,946	\$2,173	\$2,398	\$2,624	\$2,733	\$2,727	\$2,721	\$2,715	\$2,708	\$27,220
Debt Component		\$193	\$228	\$263	\$297	\$332	\$367	\$401	\$418	\$417	\$416	\$415	\$414	\$4,161
Return Requirement		\$1,457	\$1,720	\$1,982	\$2,244	\$2,505	\$2,765	\$3,025	\$3,151	\$3,144	\$3,137	\$3,130	\$3,122	\$31,380
Investment Expenses	_													
Depreciation Expense - Mains		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Depreciation Expense - Services		\$445	\$534	\$623	\$712	\$802	\$891	\$980	\$1,069	\$1,069	\$1,069	\$1,069	\$1,069	\$10,332
Property Taxes		\$328	\$328	\$328	\$328	\$328	\$328	\$328	\$328	\$328	\$328	\$328	\$328	\$3,936
General Public Notice Expense and Customer Notice Expense		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0_
Total Expense	_	\$773	\$862	\$951	\$1,040	\$1,130	\$1,219	\$1,308	\$1,397	\$1,397	\$1,397	\$1,397	\$1,397	\$14,268
Total Revenue Requirements	_ <u>-</u>	\$2,230	\$2,582	\$2,933	\$3,284	\$3,635	\$3,984	\$4,333	\$4,548	\$4,541	\$4,534	\$4,527	\$4,519	\$45,648
			.,											

Florida Public Utilities Company-Fort Meade

Gas Reliability Infrastructure Program (GRIP)
Projection of Qualified Mains & Services Revenue Requirements
Surcharge Calculation - January 1, 2017 through December 31, 2017
Per Therm Rate

Schedule D-1
Exhibit____
Michael Cassel (MC-1)
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1.	1/1/17-12/31/17 Qualified Mains & Services Replacement Revenue Requirem	ents	\$	45,648
	Mains 09	6	\$0	
	Services 1009	6 \$45,¢	548	
	Net	\$45,0	548	
2.	TRUE-UP from Prior Period (Over)/Under Recovery Estimated thru 12/2016		\$	4,210
3.	2017 Qualified Mains & Services Replacement Revenue Requirements		\$	49,859
	Mains 09	6	\$0	
	Services 100%	6 \$49,	859	
	Net	\$49,	359	

RATE SCHEDULE	2017 THERMS	SERVICES COS %	MAINS COS %	SERVICES REV REQ	MAINS REV REQ	GRIP REV REQ	DOLLARS PER THERM	TAX FACTOR	GRIP FACTORS PER THERM	TYPICAL ANNUAL THERMS	ANNUAL COST	AVERAGE MONTHLY COST
RESIDENTIAL	78,698	58.00%	22.00%	\$28,918	\$0	\$28,918	\$0.36746	1.00503	\$0.36931	250	\$92.33	\$7.69
COMMERCIAL SMALL (General Service & GS Transportation)	72,983	17.00%	23.00%	\$8,476	\$0	\$8,476	\$0.11614	1.00503	\$0.11672	2,500	\$291.80	\$24.32
COMM, LRG VOLUME (Large Vol & LV Transportation)	0	25.00%	46.00%	\$12,465	\$0	\$12,465	\$0,00000	1.00503	\$0.00000	25,000	\$0.00	\$0.00
INTERRUPTIBLE SERVICE (Int Service & IS Transportation)	0	0.00%	8.00%	\$0	\$0	\$0	\$0.00000	1.00503	\$0.00000	50,000	\$0.00	\$0.00
GENERAL LIGHTING SERVICE	0	0.00%	1.00%	\$0	\$0	\$0	\$0.00000	1.00503	\$0.00000	500	\$0.00	\$0.00

TOTAL	151,681	100.00%	100.00%	\$49,859	\$0	\$49,859