

FILED 9/29/2017 DOCUMENT NO. 08009-2017 FPSC - COMMISSION CLERK

Writer's Direct Dial Number: (850) 521-1706 Writer's E-Mail Address: bkeating@gunster.com

September 29, 2017

E-PORTAL FILING

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

Re: Docket No. 20170190-GU – Joint petition for approval of gas reliability infrastructure program (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 Responses of Florida Public Utilities Company, Florida Public Utilities Company-Fort Meade, and Florida Division of Chesapeake Utilities Corporation to Staff's First Data Requests in the referenced docket. Also included with this filing are the following revised tariff pages:

CFG Fifth Revised Sheet No. 105.1

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,

Dec A

Beth Keating Gunster, Yoakley & Stewart, P.A. 215 South Monroe St., Suite 601 Tallahassee, FL 32301 (850) 521-1706

MEK

215 South Monroe Street, Suite 601 Tallahassee, FL 32301-1804 **p** 850-521-1980 **f** 850-576-0902 **GUNSTER.COM** Fort Lauderdale | Jacksonville | Miami | Palm Beach | Stuart | Tallahassee | Vero Beach | West Palm Beach

RESPONSES TO STAFF'S FIRST DATA REQUEST

Docket No. 20170190-GU – Joint petition for approval of gas reliability infrastructure program (GRIP) cost recovery factors by Florida Public Utilities Company, Florida Public Utilities Company–Fort Meade, and Florida Division of Chesapeake Utilities Corporation

1. Please update the pipe replacement program progress tables for FPUC, Chesapeake, and Fort Meade as contained in Attachment 1 of Order No. PSC-16-0567-TRF-GU in Docket No. 20160199-GU and displayed below.

Attachment 1 – Page 1 of 2

		N	fain Replaceme	nt		Service Replacement		
Year	Replaced Cast Iron (miles)	ReplacedRemainingBareCast Iron atSteelYear End(miles)(miles)		Remaining Bare Steel at Year End (miles)	Total Miles Remaining	Replaced Number of Bare Steel Services	Total Number of Remaining Steel Services	
July 2012			0.9	197.10	198.00		7980	
2012		6.00	0.9	191.10	192.00	91	7889	
2013	0.6	26.40	0.3	164.70	165.00	2071	5818	
2014		38.00	0.3	126.70	127.00	1275	4543	
2015		30.00	0.3	96.70	97.00	605	3938	
2016		29.00	0.3	67.70	68.00	815	3123	
2017	0.3	13.70	0	54.00	54.00	650	2473	
2018		14.00	0	40.00	40.00	650	1823	
2019		14.00	0	26.00	26.00	650	1173	
2020		14.00	0	12.00	12.00	650	523	
2021		10.00	0	2.00	2.00	465	58	
2022		2.00	0	0.00	0.00	58	0	

Table 1FPUC Pipe Replacement Program Progress

 Table 2

 Chesapeake Pipe Replacement Program Progress

		M	ain Replacemen	nt		Service Replacement			
Year	Replaced Cast Iron (miles)	Replaced Bare Steel (miles)	Remaining Cast Iron at Year End (miles)	Remaining Bare Steel at Year End (miles)	Total Miles Remaining	Replaced Number of Bare Steel Services	Total Number of Remaining Steel Services		
July 2012			0	152.00	152.00	1	762		
2012		5.00	0	147.00	147.00	34	728		
2013		3.00	0	144.00	144.00	139	589		
2014		19.00	0	125.00	125.00	47	542		
2015		34.00	0	91.00	91.00	284	258		
2016		30.00	0	61.00	61.00	52	206		
2017		13.00	0	48.00	48.00	42	164		

Docket No. 20170190-GU

2018	13.00	0	35.00	35.00	42	122
2019	13.00	0	22.00	22.00	42	80
2020	13.00	0	9.00	9.00	42	38
2021	7.00	0	2.00	2.00	26	12
2022	2.00	0	0.00	0.00	12	0

Attachment 1 – Page 2 of 2

Table 3
Fort Meade Pipe Replacement Program Progress

Year		Ma		Service Replacement			
	Replaced Cast Iron (miles)	Replaced Bare Steel (miles)	Remaining Cast Iron at Year End (miles)	Remaining Bare Steel at Year End (miles)	Total Miles Remaining	Replaced Number of Bare Steel Services	Total Number of Remaining Steel Services
Jan. 2016			0	0	0		250
2016		0	0	0	0	100	150
2017		0	0	0	0	125	25
2018		0	0	0	0	25	0

Company Response:

The Company has updated the requested Tables. Please see Attachment A.

2. Referring to Mr. Cassel's testimony on page 4, please provide a general overview of the cast iron and bare steel replacement projects undertaken in/forecast for 2017 for FPUC, Fort Meade, and Chesapeake.

Project Name	City	Start	Est. End
FPUC			
Lake Osborne	City of Lake Worth	Oct'16	Nov'17
La Puerta	Town of Palm Beach	Mar'17	Oct'17
Town Center 2017	Town of Palm Beach	May'17	Nov'17
Via Del Mar	Town of Palm Beach	July'17	Nov'17
Royal Poinciana Plaza	Town of Palm Beach	Aug'17	Nov'17
Broadway Ph.4	City of West Palm Beach	Sept'17	Mar'18
CFG			
Bartow II	City of Bartow	Oct'16	Dec'17
Lake Wales I	City of Lake Wales	June'16	Feb'17
Winter Haven I	City of Winter Haven	Jan'17	July'17
Winter Haven - Trail	City of Winter Haven	Feb'17	Aug'17
Winter Haven -IV	City of Winter Haven	July'17	Dec'17
Lake Wales II	City of Lake Wales	Oct'17	Mar'18

Company Response:

3. On page 4 of his testimony, witness Cassel discusses newly discovered bare steel and cast iron mains and services that were not included in the original petition. Witness Cassel's example occurs in Fort Meade. Are there examples for FPUC and Chesapeake that are included for recovery in 2018? If yes, please explain.

Company Response:

The Company has not discovered any new bare steel and cast iron mains and services for FPUC and Chesapeake.

4. Please provide the total amount of depreciation and/or operations and maintenance (O&M) expense savings, if any, that were included as a reduction in expenses for FPUC, Fort Meade, and Chesapeake. If there were no depreciation or O&M savings, please explain why.

Company Response:

No depreciation and/or operations and maintenance expense savings were included as a reduction in expenses. The Company determined that if there were any depreciation savings, they would be offset by the change in asset life caused by the increased cost of removal.

5. Referring to Schedules B-1 and C-1 for FPUC, Fort Meade, and Chesapeake, please provide the source of the interest rates used.

Company Response:

The Company uses the monthly Updated 30-Day Commercial Paper Rate memorandum issued by the FPSC.

- 6. The following questions concern capital expenditures. The source is Exhibit MC-1, pages 2-4 (FPUC), 7-9 (Chesapeake), and 12-14 (Fort Meade), Total Qualified Investment.
 - a. Please explain the decrease in FPUC's capital expenditures from final 2016 expenditures of \$19,571,150 to actual/estimated 2017 expenditures of \$6,071,766.

Company Response:

In the beginning, the Company was aggressive in making sure that the high risk, qualifying facilities were replaced first, therefore increasing capital expenditures. Presently, the Company has completed/replaced more than half of the mains and services projected with five years remaining. As a result, the Company is attempting to allocate the remaining projects over the life of the program. However, the Company may accelerate the program if municipal roadway improvement projects arise where qualifying facilities are located, which help reduce the Company's replacement costs. b. Given that FPUC's projected 2018 expenditures are \$6,600,000, does FPUC expect the annual level of capital expenditures to remain in the \$6 million range? Please explain.

<u>Company Response:</u> Please see Response 6a above.

c. Please explain the decrease in Chesapeake's capital expenditures from final 2016 expenditures of \$6,453,987 to actual/estimated 2017 expenditures of \$2,852,772.

<u>Company Response:</u> Please see Response 6a above.

d. Given that Chesapeake's projected 2018 expenditures are \$3,300,000, does Chesapeake expect the annual level of capital expenditures to remain in the \$3 million range? Please explain.

Company Response:

Please see Response 6a above.

e. Does Fort Meade expect the annual level of capital expenditures to remain at about \$100,000? Please explain.

Company Response:

The Company originally estimated that 250 steel services had to be replaced in Fort Meade. By the end of 2017, the Company anticipates that less than half of the services (85) will have been replaced, leaving a significant amount (165) of steel services to be replaced. The Company originally projected it would take about two years to replace all 250 steel services, but due to other construction work (Non-FPUC) in the areas of our qualifying facilities and the lack of availability of contractor resources, the Company has experienced delays and replacement of these services may extend beyond the projected two years. Therefore, the Company does expect the annual level of capital expenditures for Fort Meade to remain around \$100,000 or less.

7. Please provide all the GRIP schedules in Excel with the formulas unlocked.

Company Response:

See Attached File (Attachment B).

8. Referring to paragraph 8 of the petition, please confirm that Chesapeake's 2018 revenue requirement is \$3,525,450.

Company Response:

The 2018 revenue requirement for Chesapeake is \$3,525,450. Paragraph 8 of the petition inadvertently stated \$3,525,45.

9. In Docket No. 170062-GU, FPUC provided refunds to Chesapeake's FTS-9 customers. Please confirm that the refunds and amended rate are reflected in the exhibit.

Company Response:

The refunds for the Chesapeake FTS-9 customers were processed and applied to each customer's account on May 30, 2017 for a total of \$71,460.92, including interest, effective with the Company's May billing period.

10. Please provide a corrected tariff page 105.1, legislative version, that reflects the FTS-9 rate of \$0.08359 ordered by the Commission in Docket No. 170062-GU.

Company Response:

See Attached Revised Tariff Pages, Legislative and Clean versions.

RATE SCHEDULES MONTHLY RATE ADJUSTMENTS

ferrar a service state of the service service and the service service service of the service servi

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, 2018 through December 31, 2018 for each rate classification are as follows:

Rate Schedule	Classification of Service	Rate per therm
FTS A	< 130 therms	\$0.55340
FTS-B	> 130 therms up to 250 therms	\$0.17785
FTS-1	> 0 up to 500 therms	\$0.11838
FTS-2	> 500 therms up to 1,000 therms	\$0.12603
FTS-2.1	> 1,000 therms up to 2,500 therms	\$0.12095
FTS-3	> 2,500 therms up to 5,000 therms	\$0.05359
FTS-3.1	> 5,000 therms up to 10,000 therms	\$0.06238
FTS-4	> 10,000 therms up to 25,000- therms	\$0.07404
FTS-5	> 25,000 therms up to 50,000 therms	\$0.07777
FTS-6	> 50,000 therms up to 100,000 therms	\$0.06234
FTS-7	> 100,000 therms up to 200,000 therms	\$0.07864
FTS-8	> 200,000 therms up to 400,000 therms	\$0.07326
FTS-9	> 400,000 therms up to 700,000 therms	\$0.10860
FTS-10	> 700,000 therms up to 1,000,000 therms	\$0.12848
FTS-11	> 1,000,000 therms up to 2,500,000	\$0.12575
FTS-12	> 2,500,000 therms up to 12,500,000	\$0.03277
FTS-13	> 12,500,000 therms	N/A

(Continued to Sheet No. 105.2)

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, 20178 through December 31, 20178 for each rate classification are as follows:

Rate Schedule	Classification of Service	Rate per therm
		#0.45010.55040
FTS A	< 130 therms	\$0. 45319 <u>.55340</u>
FTS-B	> 130 therms up to 250 therms	\$0. 15225 <u>.17785</u>
FTS-1	> 0 up to 500 therms	\$0. 10371 <u>.11838</u>
FTS-2	> 500 therms up to 1,000 therms	\$0. 11170 <u>.12603</u>
FTS-2.1	> 1,000 therms up to 2,500 therms	\$0. 11406 <u>.12095</u>
FTS-3	> 2,500 therms up to 5,000 therms	\$0. 04527 <u>.05359</u>
FTS-3.1	> 5,000 therms up to 10,000 therms	\$0. 06029 <u>.06238</u>
FTS-4	> 10,000 therms up to 25,000- therms	\$0. 07233 <u>.07404</u>
FTS-5	> 25,000 therms up to 50,000 therms	\$0. 07490 <u>.07777</u>
FTS-6	> 50,000 therms up to 100,000 therms	\$0. 05947 <u>.06234</u>
FTS-7	> 100,000 therms up to 200,000 therms	\$0. 08142 <u>.07864</u>
FTS-8	> 200,000 therms up to 400,000 therms	\$0. 06465 <u>.07326</u>
FTS-9	> 400,000 therms up to 700,000 therms	\$0. 08359 <u>.10860</u>
FTS-10	> 700,000 therms up to 1,000,000 therms	\$0. 09318 <u>.12848</u>
FTS-11	> 1,000,000 therms up to 2,500,000	\$0. 05475 <u>.12575</u>
FTS-12	> 2,500,000 therms up to 12,500,000	\$0. 03741 <u>.03277</u>
FTS-13	> 12,500,000 therms	N/A

(Continued to Sheet No. 105.2)

										ATTACH		
		+								ATTACI	VICIVIA	_
												<u> </u>
						+						_
						Table 1						
				FPUC Pi	pe Replace	ment Pro	ogram P	rogress				
			Mains (· · · · · ·	T	0		Bloom la sur			
			IVIAILIS (of Services		
				Remaining	<u>v</u>	·			Remaining	Remaining		
		Replaced	· · · · · · · · · · · · · · · · · · ·			·	Replaced	Replaced	Cast Iron at	Bare Steel a	t Total	
	Year		Bare Stee		Year-End	Remaining	Cast Iron	Bare Stee	l Year-End	Year-End	Remainin	g
_	Jul-12			0.9		198.00)		c	798	7980)
	2012		6.00			192.00)	91	L C	788	7889)
	2013	3 0.6	26.40	0.3	164.70	165.00)	2071	C	581	3 5818	3
	2014	l	38.00	0.3	126.70	127.00)	1275	C	454	3 4543	
- _	2015	5	30.00	0.3	96.70	97.00		605	C	393	3 3938	3
	2016	5	22.50	0.3	74.20	74.50)	555				
	2017	/	12.00	0.3	62.20	62.50		375				1
	2018	0.3	13.00	0	49.20			650	+			1
	2019		13.00	0			· · · · · ·	650			·	
	2020)	13.00	0				650				1
	2021		13.00	0		10.20		650		408		
- T	2022		10.20			0.00		408	+			-
		1				0.00		400	0	·		-
				·							·	
						T-1-1-0	<u> </u>				+	
						Table 2		L				
			i i	Chesape	ake Pipe R	eplacem	ent Prog	ram Pro	ogress			
			Mains (N			Number of Services						
			ITTUINS (I		Dama la la s						<u> </u>	L
		Replaced	Replaced	Remaining	Remaining	. <u> </u>			Remaining	Remaining		ĺ
	Year			Cast Iron at	Bare Steel at	Total	Replaced	Replaced	Cast Iron at	Bare Steel at	Total	
		Cast Iron	Bare Steel	Year-End	Year-End	Remaining	Cast Iron	Bare Steel	Year-End	Year-End	Remaining	
	Jul-12		- - - - - - - - - -	0		152.00			0	762	762	
	2012		5.00	0	147.00	147.00	ļ	34	0	728	728	
	2013	<u> </u>	3.00	0	144.00	144.00		139	0	589	589	
	2014		19.00	0	125.00	125.00		47	0	542	542	
	2015		34.00	0	91.00	91.00		284	0	258	258	
	2016		25.10	0	65.90	65.90		-81	0	339	339	**
_	2017		24.00	0	41.90	41.90		95	0	244	244	
	2018		9.00	0	32.90	32.90		52	0	192	192	
	2019		9.00	0	23.90	23.90		52	0	140	140	
	2020		9.00	0	14.90	14.90		52	0	88	88	_
	2021		9.00	0	5.90	5.90		52	0	36	36	
	2022		5.90	0	0.00	0.00		36	0	0	0	
	** A total of 11	1 YTD bare steel	services were re	placed in 2016. Plu	s a correction to incre	ase total services	remaining by 19	12 (4th Otr of 20	16) The pet equals			
		1	T						son menereduals			
						Table 3						
												
				Fort Mea	de Pipe Re	placeme	nt Prog	am Prog	gress			
			Mains (N						of Services			
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Remaining	Remaining							
		Replaced	Replaced	Cast Iron at		Tatal	Danksed	Danlassel	Remaining	Remaining		
	Year	Cast Iron	Steel		Steel at	Total			Cast Iron at	Steel at	Total	
		Cast Iron	Steel	Year-End	Year-End	Remaining	Cast Iron	Steel	Year-End		Remaining	
	Jan-16			0	0	0			0	250	250	
1	2016		0	0	0	0		29	0	221	221	
	2017		0	0	0	0		56 165	0	165	165	

Florida Public Utilities Company Gas Reliability Infrastructure Program (GRIP)

Calculation of Equity and Debt Returns

Schedule A-1 Exhibit_____ Michael Cassel (MC-1) Page 1 of 15

Earnings Surveillance Report - December 31, 2016	
Equity Cost Rate	10.85%
Weighted Equity Cost Rate	4.79%
Revenue Expansion Factor	1.6406
Weighted Equity Cost Rate, times Revenue Expansion Factor	7.860%
Long Term Debt-CU	0.710%
Short Term Debt	0.310%
Long Term Debt-FC	0.310%
Short Term Debt-Refinanced LTD	0.000%
Customer Deposits	0.080%
Weighted Debt Cost Rate	1.410%
Overall Weighted Cost Rate	6.20%

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

Gas Reliability Infrastructure Program (GRIP) Calculation of the Projected Revenue Requirements January 1, 2016 through December 31, 2016													Schedule B-1 Exhibit Michael Cassel Page 2 of 15	(MC-1)
Item	Beginning <u>Balance</u>	ACTUAL Jan	ACTUAL <u>Feb</u>	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	Year End
Qualified Investment	Datalice	2011	<u>reo</u>	<u>Mar</u>	Apr	<u>May</u>	Jun	<u>Iul</u>	Aug	Sep	Oct	Nov	Dec	Total/Balance
Qualified Investment - Mains - Current Year 1070 Activity Qualified Investment - Mains - Closed 1070 Activity to Plant		\$1,784.223	\$1,694,698	\$1,836,338	\$1,972,534	\$928,777	\$1,337,233	\$729,572	\$1,029,951	\$829,070	\$954,422	\$1,152,057	\$764,153	\$15.013.028
Qualified Investment - Services - Current Year 1070 Activity		\$79,622 \$376,394	(\$919,459) \$215,319	(\$126,904) \$386,842	(\$3,106,133) \$388,186	\$414,893	(\$90,085)	(\$4,659,950)	(\$2,170,908)	(\$778,690)	(\$477,624)		(\$3,672,553)	(\$15,922,685)
Qualified Investment - Services - Closed 1070 Activity to Plant		\$697,671	(\$1,176,874)	(\$220,287)	(\$439,072)	3414,893	\$499,485 (\$587,465)	\$280,899 (\$364,346)	\$916,661 (\$372,351)	\$168,094 (\$895,807)	\$236,740 (\$314,082)	\$311,195 (\$95,672)	\$363,413	\$4,558,122
Qualified Investment - Mains - Current 1010 Activity Qualified Investment - Services - Current 1010 Activity		(\$79,622)	\$919,459	\$126,904	\$3,106,133	\$0	\$90,085	\$4,659,950	\$2,170,908	\$778,690	\$477,624	(\$95,672) \$0	(\$789,839) \$3,672,553	(\$4,558,122) \$15,922,685
Quanties investment - services - Current 1010 Activity		(\$697,671)	\$1,176.874	\$220,287	\$439,072	\$0	\$587,465	\$364,346	\$372,351	\$895,807	\$314,082	\$95,672	\$789,839	\$4,558,122
Total Qualified Investment - Mains 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	\$1,670,013	\$1,720,393	\$2,197,191	\$3,349,248	\$440.847	\$440.847
Total Qualified Investment - Service 1070 Total Qualified Investment - Mains 1010	\$0 \$44,791,739	\$1,074,066 \$44,712,118	\$112,511 \$45,631,577	\$279,067	\$228,182	\$643,074	\$555,094	\$471,648	\$1,015,958	\$288,245	\$210,903	\$426,426	\$0	\$0
Total Qualified Investment - Service 1010	\$14,413,427	\$13,715,756	\$45,651,577 \$14,892,629	\$45,758,481 \$15,112,916	\$48,864,614 \$15,551,988	\$48,864,614 \$15,551,988	\$48,954,699 \$16,139,452	\$53,614,649 \$16,503,799	\$55,785,557 \$16,876,150	\$56,564,247	\$57,041,871	\$57,041,871	\$60,714,424	\$60,714,424
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	\$75,347,677	\$17,771,957 \$76,344,841	\$18,086,038 \$77,536,003	\$18,181,711 \$78,999,255	\$18,971,549 \$80,126,821	\$18,971,549 \$80,126,821
Less: Accumulated Depreciation	(\$1,719,752)	(\$1,849,231)	(\$1,976,968)	(\$2,109,345)	(\$2,242,492)	(00.000.017)	(00 50 (000)						000,120,021	\$80,120,821
Net Book Value	\$58,835,919	\$60,867,058	\$62,649,338	\$64,740,142	\$66,967,714	(\$2,383,357) \$68,170,519	(\$2,524,223) \$69,866,371	(\$2,666,605) \$70,734 460	(\$2,819,903) \$7 527,774	(\$2,978,744) \$73,366,098	(\$3,141,286) \$74,394,717	(\$3,305,571) \$75,693,685	(\$3,470,070) \$76,656,751	(\$3,470,070) \$76,656,751
										010,000,000	314,354,717	\$15,055,085	370,030,731	\$70,030,751
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	\$71,631,117	\$72,946,936	\$73,880,407	\$75,044,201	\$76,175,218	
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%	
Equity Component - inclusive of Income Tax Gross-up		\$410,481	\$423,558	\$436,840	\$451,648	\$463,412	\$473,352	\$482,144	\$491,270	\$500,294	\$506,696	\$514,678	\$522,435	\$5,676,809
Debt Component Return Requirement	-	\$78,804 \$489,286	\$81,315 \$504,873	\$83,865	\$86,708	\$88,966	\$90,874	\$92,562	\$94,314	\$96,047	\$97,276	\$98,808	\$100,297	\$1,089,837
· · · · · · · · · · · · · · · · · · ·	-	\$469,280	\$504,873	\$520,704	\$538,356	\$552,378	\$564,226	\$574,706	\$585,584	\$596,341	\$603,972	\$613,486	\$622,732	\$6,766,645
Investment Expenses														
Depreciation Expense - Mains Depreciation Expense - Services		\$97,049	\$96,876	\$98,868	\$99,143	\$105,873	\$105,873	\$106,069	\$116,165	\$120,869	\$122,556	\$123,591	\$123,591	\$1,316,523
Property Taxes		\$32,430 \$98,060	\$30,860 \$98,060	\$33,508 \$98,060	\$34,004 \$98,060	\$34,992 \$98,060	\$34,992	\$36,314	\$37,134	\$37,971	\$39,987	\$40,694	\$40,909	\$433,795
General Public Notice Expense & Customer Notice Expense	_	\$0	\$3,102	\$98,000 \$0	\$56,180	\$18,792	\$98,060	\$98,060 \$0	\$98,060 \$18,133	\$98,060 (\$3,411)	\$98,060 \$11,509	\$98,060	\$98,060	\$1,176,718
Total Expense	-	\$227,539	\$228,899	\$230,437	\$237,387	\$257,717	\$238,925	\$240,442	\$269,492	\$253,489	\$272,112	\$262,344	\$6,268 \$268,828	\$60,574 \$2,987.610
Total Revenue Requirements	-	\$716,825	\$733,772	\$751,141	\$775,743	\$810,095	<u>\$803,1</u> 51	\$815,148	\$855,076	\$849,830	\$876,084	\$875,831	\$891,560	\$9,754,256
Annual Revenue Requirement for Bare Steel Replacement Investment		\$62,310	\$62,310	\$62,310	\$62,310	\$62,310								
Net Annual Revenue Requirements	_	\$654,515	\$671,462	\$688,831	\$713,433	\$747,785	\$62,310 \$740,841	\$62,310 \$752,838	\$62,310 \$792,766	\$62,310 \$787,520	\$62,310 \$813,774	\$62,310 \$813,521	\$62,317 \$829,243	\$747,727 \$9,006,529
GRIP Surcharge Revenues Collected Month	_	\$ 1,141,602	\$ 1,150,607	\$ 1,072,832	\$ 924,042	\$ 806,763	\$ 755,582	\$ 700,138			\$ 752,444			\$10,524,264
Beginning True-Up													,	
(Over) and Under Recovery for the Month			\$ (479,145)		\$ (210,609)	\$ (58,978)	\$ (14,741)	\$ 52,700	\$ 124,692	\$ 87.917	\$ 61.330	\$ (42,680)		\$ 2,967,684 \$ (1,517,735)
Monthly Interest (Expense)/Income Ending (Over) and Under Recovery			000		\$ 424	\$ 428	\$ 416	\$ 409	\$ 479	\$ 530	\$ 555	¢ ();	¢ 700	
	<u> </u>	\$ 2,481,361	\$ 2,002,865	\$ 1,619,372	\$ 1,409,186	\$ 1,350,636	\$ 1,336,311	\$ 1,389,420	\$ 1,514,591	\$ 1,603,038	\$ 1,664,924	\$ 1,622,868	\$ 1,456,443	\$ 1,456,443
Beg of Month Annual Interest Rate		0.34%	0.34%	0,35%	0.32%	0,36%	0.38%	0.36%	0.35%	0.43%	0.39%	0.43%	A 170-	-
End of Month Annual Interest Rate Average Monthly Interest Rate		0.34%	0.35%	0.320%	0.36%	0.38%	0.36%	0.35%	0,43%	0.39%	0.39%	0.43%	0.47% 0.63%	
		0.028%	0.029%	0.028%	0.028%	0.031%	0.031%	0.030%	0,033%	0.034%	0.034%	0.038%	0.046%	

Schedule B-1

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

Calculation of the Projected Revenue Requirements January 1, 2017 through December 31, 2017													Exhibit Michael Cassel Page 3 of 15	(MC-1)
<u>Item</u> Qualified Investment	Beginning <u>Balance</u>	Actual Jan	Actual Feb	Actual <u>Mar</u>	Actual <u>Apr</u>	Actual <u>May</u>	Actual Jun	Actual Jul	Projection <u>Aug</u>	Projection Sep	Projection Oct	Projection <u>Nov</u>	Projection Dec	Year End Total/Balance
Qualified Investment - Mains - Current Year 1070 Activity		\$330.017	<i></i>											
Qualified Investment - Mains - Closed 1070 Activity to Plant		\$550,017	\$455,719 (\$336,801)	\$434,089 (\$161,074)	\$306,338 (\$733,288)	\$191.053 (\$192,464)	\$446,144 \$0	\$518,387	\$351,199	\$351,199	\$351,199	\$351,199	\$351,199	\$4,437,741
Qualified Investment - Services - Current Year 1070 Activity		\$213,896	\$185,403	\$165,184	\$211,894	\$162,992	\$153,407	(\$788,423) \$155,783	(\$333,639) \$77,093	(\$333,639) \$77,093	(\$333,639) \$77,093	(\$333,639) \$77,093	(\$333,639)	(\$3,880,245)
Qualified Investment - Services - Closed 1070 Activity to Plant		\$0	(\$329,347)	(\$37,850)	(\$309,284)	(\$168,217)	(\$192,024)	(\$73,411)	(\$77,093)	(\$77,093)	\$77,093 (\$77,093)	(\$77,093)	\$77,093 (\$77,093)	\$1,634,025 (\$1,495,598)
Qualified Investment - Mains - Current 1010 Activity		\$0	\$336,801	\$161,074	\$733,288	\$192,464	\$0	\$788,423	\$333,639	\$333,639	\$333,639	\$333,639	\$333,639	\$3,880,245
Qualified Investment - Services - Current 1010 Activity		\$0	\$329,347	\$37,850	\$309,284	\$168,217	\$192,024	\$73,411	\$77,093	\$77,093	\$77,093	\$77,093	\$77,093	\$1,495,598
Total Qualified Investment - Mains 1070 Total Qualified Investment - Service 1070	\$440,847	\$770,864	\$889,782	\$1,162,797	\$735,847	\$734,436	\$1,180,579	\$910,543	\$928,103	\$945,663	\$963,223	\$980,783	\$998,343	\$998,343
Total Qualified Investment - Mains 1010	\$0 \$60,714,424	\$213,896 \$60,714,424	\$69,952	\$197,286	\$99,897	\$94,672	\$56,055	\$138,427	\$138,427	\$138,427	\$138,427	\$138,427	\$138,427	\$138,427
Total Qualified Investment - Service 1010	\$18,971,549	\$18,971,549	\$61,051,225 \$19,300,896	\$61,212,299 \$19,338,746	\$61,945,587 \$19,648,030	\$62,138,052 \$19,816,247	\$62,138,052 \$20,008,271	\$62,926,475 \$20,081,682	\$63,260,114	\$63,593,753	\$63,927,392	\$64,261,031	\$64,594,670	\$64,594,670
Total Qualified Investment	\$80,126,821	\$80,670,734	\$81,311,856	\$81,911,129	\$82,429,361	\$82,783,406	\$83,382,957	\$84,057,127	\$20,158,775 \$84,485,419	\$20,235,868 \$84,913,711	\$20,312,961 \$85,342,003	\$20,390,054 \$85,770,295	\$20,467,147 \$86,198,587	\$20,467,147
								001,001,127		304,915,711	365,542,005	\$63,110,295	\$60,198,387	\$86,198,587
Less: Accumulated Depreciation	(\$3,470,070)	(\$3,644,304)	(\$3,818,538)	(\$3,994,243)	(\$4,170,381)	(\$4,348,805)	(\$4,528,024)	(\$4,707,675)	(\$4,889,200)	(\$5,071,620)	(\$5,254.937)	(\$5,439,151)	(\$5,624,261)	(\$5,624,261)
Net Book Value	\$76,656,751	\$77,026,430	\$77,493,318	\$77,916,886	\$78,258,980	\$78,434,602	\$78,854,934	\$79,349,452	\$79,596,220	\$79,842,091	\$80,087,066	\$80,331,144	\$80,574,326	\$80,574,326
Average Net Qualified Investment		\$76,841,590	\$77,259,874	\$77,705,102	\$78,087,933	\$78,346,791	\$78,644,768	\$79,102.193	\$79,472,836	\$79,719,155	\$79,964,578	\$80,209,105	\$80,452,735	
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%	2.30%	2.00%	
Return on Average Net Qualified Investment														
Equity - Cost of Capital, inclusive of Income Tax Gross-up		7.8600%	7.8600%	7.8600%	7.8600%	7.8600%	7.8600%	7.8600%	7.8600%	7.8600%	7.8600%	7.8600%	7.8600%	
Debt - Cost of Capital		1.4100%	1.4100%	1.4100%	1.4100%	1.4100%	1.4100%	1.4100%	1.4100%	1.4100%	1.4100%	1.4100%	1.4100%	
Equity Component - inclusive of Income Tax Gross-up		\$503,312	\$506,052	\$508,968	\$511,476	\$513,171	\$515,123	\$518,119	\$520,547	\$522,160	\$523,768	\$525,370	\$526,965	\$6,195,034
Debt Component Return Requirement	-	\$90,289 \$593,601	\$90,780	\$91,303	\$91,753	\$92,057	\$92,408	\$92,945	\$93,381	\$93,670	\$93,958	\$94,246	\$94,532	\$1,111,323
rotan requirement	=	593,601	\$596,833	\$600,272 600,272	\$603,229	\$605,229	\$607,531	\$611,064	\$613,928	\$615,830	\$617,726	\$619,615	\$621,497	\$7,306,356
Investment Expenses		555,001	390,033	600,272										
Depreciation Expense - Mains		\$131,548	\$131,548	\$132,278	\$132,627	\$134,215	\$134,632	\$134,632	\$136,341	\$137,064	\$137,786	\$138,509	\$139,232	\$1.620,413
Depreciation Expense - Services		\$42,686	\$42,686	\$43,427	\$43,512	\$44,208	\$44,587	\$45,019	\$45,184	\$45,357	\$45,531	\$45,704	\$45,878	\$533,778
Property Taxes General Public Notice Expense & Customer Notice Expense		\$127,761	\$127,761	\$127,761	\$127,761	\$127,761	\$127,761	\$127,761	\$127,761	\$127,761	\$127,761	\$127,761	\$127,761	\$1,533,135
Total Expense	-	\$301,995	\$0 \$301,995	\$0 \$303,466	\$0 \$303,900	\$875 \$307,059	\$7,124 \$314,105	\$0 \$307,412	\$309,286	\$310,182	\$0	\$0	\$44,001	\$52,000
·	-				3505,700	\$507,059	3314,103	3307,412	3309,286	\$310,182	\$311,078	\$311,975	\$356,872	\$3,739,326
Total Revenue Requirements	-	\$895,596	\$898,828	\$903,738	\$907,129	\$912,288	\$921,636	\$918,477	\$923,213	\$926,013	\$928,805	\$931,590	\$978,369	\$11,045,682
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	-	\$833,286	\$836,518	\$841,428	\$844,819	\$849,978	\$859,326	\$856,167	\$860,903	\$863,703	\$866,495	\$869,280		\$10,297,955
GRIP Surcharge Revenues Collected Month	-	\$ 1,506,872	\$ 1,365,764	\$ 1,393,571	\$ 1,270,509	\$ 1,050,178	\$ 1,006,048	\$ 952,034	\$635,570	\$ 671,041	\$ 696,221	\$ 819,859	\$ 1,030,210	\$12,397,877
Beginning True-Up														
(Over) and Under Recovery for the Month		\$ (673,586)	\$ (529,246)	\$ (552,143)	\$ (425,690)	\$ (200,200)	\$ (146,722)	\$ (95,867)	\$ 225,333	\$ 192,662	\$ 170,273	\$ 49,421	\$ (114.157)	\$ 1,456,443 \$ (2,099,922)
Monthly Interest (Expense)/Income		\$ 582	\$ 270	\$ (13)	\$ (347)	\$ (585)	<u>s</u> (728)	\$ (930)	\$ (950)	· · ·	\$ (601)			
Ending (Over) and Under Recovery	<u>\$ 1,456,443</u>	\$ 783,440	\$ 254,463	\$ (297,693)	\$ (723,729)	\$ (924,514)	\$ (1,071,965)	\$ (1,168,762)	\$ (944,378)				(/	\$ (648,578)
Beg of Month Annual Interest Rate		0.63%	0.62%	0.63%	0.80%	0.84%	0.0761	0.000						
End of Month Annual Interest Rate		0.62%	0.62%	0.83%	0.80%	0.84%	0.86% 0.90%	0.90% 1.08%	1.08% 1.08%	1.08% 1.08%	1.08% 1.08%	1.08%	1.08%	
Average Monthly Interest Rate		0.052%	0.052%	0.060%	0.068%	0.071%	0.073%	0.083%	0.090%	0.090%	0.090%	1.08% 0.090%	1.08% 0.090%	
											0.07070	0.07078	0.0707a	

Schedule C-1

Exhibit_____

Florida Public Utilities Company Gas Reliability Infrastructure Program (GRIP) Calculation of the Projected Revenue Requirements January 1, 2018 through December 31, 2018

Gas Reliability Infrastructure Program (GRIP)													Schedule C-2 Exhibit	
Calculation of the Projected Revenue Requirements January 1, 2018 through December 31, 2018													Michael Cassel	(MC-1)
standary 1, 2018 anough Detember 51, 2018													Page 4 of 15	(1110-1)
	Beginning													
<u>Item</u>	Balance	Jan	Feb	Mar	Apr	May	Jun	Jul	A	6				Year End
Qualified Investment							200	201	Aug	Sep	<u>Oct</u>	Nov	Dec	Total/Balance
Qualified Investment - Mains - Current Year 1070 Activity		\$451,000	\$451,000	\$451,000	\$451,000	\$451,000	\$451,000	\$451.000	\$451,000	\$451,000	\$451,000	\$451,000		
Qualified Investment - Mains - Closed 1070 Activity to Plant		(\$428,450)	(\$428,450)	(\$428,450)	(\$428,450)	(\$428,450)	(\$428,450)	(\$428,450)	(\$428,450)	(\$428,450)	(\$428,450)	(\$428,450)	\$451,000	\$5,412,000
Qualified Investment - Services - Current Year 1070 Activity		\$99,000	\$99,000	\$99,000	\$99,000	\$99,000	\$99,000	\$99.000	\$99,000	\$99,000	\$99,000	(\$428,450) \$99,000	(\$428,450)	
Qualified Investment - Services - Closed 1070 Activity to Plant		(\$99,000)	(\$99,000)	(\$99,000)	(\$99,000)	(\$99,000)	(\$99,000)	(\$99,000)	(\$99,000)	(\$99,000)	(\$99,000)	(\$99,000)	\$99,000	\$1,188,000
Qualified Investment - Mains - Current 1010 Activity		\$428,450	\$428,450	\$428,450	\$428,450	\$428,450	\$428,450	\$428,450	\$428,450	\$428,450	\$428,450	\$428,450	(\$99,000) \$428,450	(\$1,188,000)
Qualified Investment - Services - Current 1010 Activity		\$99,000	\$99,000	\$99,000	\$99,000	\$99,000	\$99,000	\$99,000	\$99,000	\$99,000	\$99,000	\$99,000	\$99,000	\$5,141,400 \$1,188,000
Total Qualified Investment - Mains 1070	\$998,343	\$1,020,893	\$1,043,443	\$1,065,993	\$1,088,543	£1.111.000								
Total Qualified Investment - Service 1070	\$138,427	\$138,427	\$138,427	\$138,427	\$138,427	\$1,111,093 \$138,427	\$1,133,643	\$1,156,193	\$1,178,743	\$1,201,293	\$1,223,843	\$1,246,393	\$1,268,943	\$1,268,943
Total Qualified Investment - Mains 1010	\$64,594,670	\$65,023,120	\$65,451,570	\$65,880,020	\$138,427 \$66,308,470	\$138,427 \$66,736,920	\$138,427	\$138,427	\$138,427	\$138,427	\$138,427	\$138,427	\$138,427	\$138,427
Total Qualified Investment - Service 1010	\$20,467,147	\$20,566,147	\$20,665,147	\$20,764,147	\$20,863,147	\$20,962,147	\$67,165,370 \$21,061,147	\$67,593,820	\$68,022,270	\$68,450,720	\$68,879,170	\$69,307,620	\$69,736,070	\$69,736,070
Total Qualified Investment	\$86,198,587	\$86,748,587	\$87,298,587	\$87,848,587	\$88,398,587	\$88,948,587	\$89,498,587	\$21,160,147 \$90,048,587	\$21,259,147 \$90,598,587	\$21,358,147	\$21,457,147	\$21,556,147	\$21,655,147	\$21,655,147
					400,270,301	400,040,007	\$85,498,587	\$90,040,387	\$90,598,587	\$91,148,587	\$91,698,587	\$92,248,587	\$92,798,587	\$92,798,587
Less: Accumulated Depreciation	(\$5,624,261)	(\$5,810,267)	(\$5,997,424)	(\$6,185,733)	(\$6,375,192)	(\$6,565,802)	(\$6,757,564)	(\$6,950,476)	(\$7,144,540)	(07 000 Free)				
Net Book Value	\$80,574,326	\$80,938,320	\$81,301,163	\$81,662,855	\$82,023,395	\$82,382,785	\$82,741,023	\$83.098.111	\$83,454,047	(\$7,339,755)	(\$7,536,120)	(\$7,733,637)	(\$7,932,305)	(\$7,932,305)
						+02,002,103	002,741,025	365,098,111	363,434,047	\$83,808,832	\$84,162,467	\$84,514,950	\$84,866,282	\$84,866,282
Average Net Qualified Investment	-	\$80,756,323	\$81,119,741	\$81,482,009	\$81,843,125	\$82,203,090	\$82,561,904	\$82,919,567	\$83,276,079	\$83,631,440	\$83,985,650	\$84,338,708	\$84.690.616	i
Depreciation Rates											· · · · ·			1
Approved Depreciation Rate-Mains		2 (09/	0 (00)											
Approved Depreciation Rate-Services		2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	
		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		7,8600%	7.8600%	7.8600%	7.8600%	7.8600%	7 8 60004							
Debt - Cost of Capital		I.4100%	1.4100%	1.4100%	1.4100%	1.4100%	7.8600% 1.4100%	7.8600%	7.8600%	7.8600%	7,8600%	7.8600%	7.8600%	
				1.110070	1.410078	1.410078	1,4100%	1.4100%	1.4100%	1.4100%	1.4100%	1.4100%	1.4100%	
Equity Component - inclusive of Income Tax Gross-up		\$528,954	\$531,334	\$533,707	\$536,072	\$538,430	\$540,780	\$543,123	\$545,458					
Debt Component		\$94,889	\$95,316	\$95,741	\$96,166	\$96,589	\$97,010	\$97,430	\$97,849	\$547,786 \$98,267	\$550,106	\$552,419	\$554,724	\$6,502,894
Return Requirement	_	\$623,843	\$626,650	\$629,449	\$632,238	\$635.019	\$637:791	\$640,554	\$643,308	\$98,267	\$98,683 \$648,789	\$99,098 \$651,517	\$99,511	\$1,166,550
	~					· · · · · · · · · · · · · · · · · · ·			4045,508	3040,003	3040,769	\$651,517	\$654,235	\$7,669,444
Investment Expenses														
Depreciation Expense - Mains		\$139,955	\$140,883	\$141,812	\$142,740	\$143,668	\$144,597	\$145,525	\$146,453	\$147,382	\$148,310	\$149.238	£160.167	61 540 500 ·
Depreciation Expense - Services		\$46,051	\$46,274	\$46,497	\$46,719	\$46,942	\$47,165	\$47,388	\$47,610	\$47,833	\$48.056	\$48,279	\$150,167 \$48,501	\$1,740,730 \$567,314
Property Taxes		\$134,291	\$134,291	\$134,291	\$134,291	\$134,291	\$134,291	\$134,291	\$134,291	\$134,291	\$134,291	\$134,291	\$134,291	\$367,314 \$1,611,487
General Public Notice Expense & Customer Notice Expense Total 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	\$1,811,487
Total Expense	-	\$324,630	\$325,781	\$326,932	\$328,083	\$329,234	\$330,385	\$331,536	\$332,687	\$333,838	\$334,989	\$336,140	\$337,295	\$3,971,531
Total Revenue Requirements												0000,110	4551,255	\$5,571,551
rotal Revenue Requirements	=	\$948,472	\$952,431	\$956,380	\$960,321	\$964,253	\$968,176	\$972,090	\$975.995	\$979,891	\$983,778	\$987,657	\$991,530	\$11,640,975
Annual Revenue Requirement for Bare Steel Replacement Investment		\$62,310	\$62,310	\$62,310	\$62,310	# <0.010	P(3 310	C(2 01-		_				
Net Annual Revenue Requirements		\$886,162	\$890,121	\$894.070	\$898.011	\$62,310 \$901,943	\$62,310 \$905,866	\$62,310	\$62,310	\$62,310	\$62,310	\$62,310	\$62,317	\$747,727
	-			0054,070	\$070,011	3701,743	\$202,800	\$909,780	\$913,685	\$917,581	\$921,468	\$925,347	\$929,213	\$10,893,248

Schedule C-2

Florida Public Utilities Company

Gas Reliability Infrastructure Program (GRIP) Projection of Qualified Mains & Services Revenue Requirements Surcharge Calculation - January 1, 2018 through December 31, 2018 Per Therm Rate Schedule D-1 Exhibit Michael Cassel (MC-1) Page 5 of 15

1.	1/1/18-12/31/18 Qualified Mains & Services Replacement Revenue Req	uiremei	nts	\$1	0,893,248
	Mains	74%	\$8,061,003		
	Services	26%	\$2,832,244		
	Net		\$10,893,247		
2.	TRUE-UP from Prior Period (Over)/Under Recovery Estimated thru 12	/2017		\$	(648,578)
3.	Comment of the set replacement revenue requirements			\$1	0,244,670
	Mains	74%	\$7,581,055		
	Services	26%	\$2,663,614		
	Net		\$10,244,669		•

RATE SCHEDULE	2018 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	13,236,094	58.00%	22.00%	\$1,544,896	\$1,667,832	\$3,212,728	\$0.24272	1,00503	\$0.24395	250	\$60.99	\$5.08
COMMERCIAL SMALL (General Service & GS Transportation & NGVS &NGVTS)	13,426,146	17.00%	23.00%	\$452,814	\$1,743,643	\$2,196,457	\$0.16360	1.00503	\$0.16442	2,500	\$411.05	\$34.25
COMM. LRG VOLUME (Large Vol & LV Transportation)	43,281,725	25.00%	46.00%	\$665,904	\$3,487,285	\$4,153,189	\$0.09596	1.00503	\$0.09644	25,000	\$2,410.99	\$200.92
INTERRUPTIBLE SERVICE (Int Service & IS Transportation)	9,386,105	0.00%	8.00%	\$0	\$606,484	\$606,484	\$0.06462	1.00503	\$0.06494	50,000	\$3,247.01	\$270.58
GENERAL LIGHTING SERVICE	200,921	0.00%	1.00%	\$0	\$75,811	\$75,811	\$0.37732	1.00503	\$0.37921	500	\$189.61	\$15.80

TOTAL

-

79,530,991 100.00% 100.00% \$2,663,614 \$7,581,055 \$10,244,669

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 6 of 15
Earnings Surveillance Report - December 31, 2016	
Equity Cost Rate	10.80%
Weighted Equity Cost Rate	4.59%
Revenue Expansion Factor	1.6503
Weighted Equity Cost Rate, times Revenue Expansion Factor	7.575%
Long Term Debt-CU	0.750%
Short Term Debt	0.290%
Short Term Debt-Refinanced LTD	0.000%
Customer Deposits	0.040%
Tax Credits-Weighted Cost	0.000%
Weighted Debt Cost Rate	1.080%
Overall Weighted Cost Rate	5.67%

~

Florida Division of Chesapeake Utilities Corporation

Florida Division of Chesapeake Utilities Corporation Gas Reliability Infrastructure Program (GRIP) Calculation of the Projected Revenue Requirements January 1, 2016 through December 31, 2016	ı												Schedule B-1 Exhibit Michael Cassel Page 7 of 15	(MC-1)
14	Beginning	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	Year End
Item Oualified Investment	Balance	<u>Jan</u>	Feb	<u>Mar</u>	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Qualified Investment - Mains - Current 1070 Activity										-	_			
Qualified Investment - Mains - Closed 1070 Activity to Plant		\$102,103	\$405,306	\$517,168	\$274,634	\$667,005	\$642,993	\$581,202	\$376,973	\$620,318	\$873,733	\$51,269	\$642,224	\$5,754,927
Qualified Investment - Services - Current 1070 Activity to Plant		(\$141,194)	(\$199,112)	(\$190,692)	(\$33,394)		(\$210,564)	(\$553,404)	(\$1,323,444)	(\$187,569)	(\$241,513)	(\$126,709)	(\$1,497,342)	(\$4,704,937)
Qualified Investment - Services - Closed 1070 Activity to Plant		\$12,238	\$55,112	\$55,583	\$46,307	\$46,477	\$26,705	\$54,751	\$54,596	\$76,385	\$92,270	\$39,219	\$139,417	\$699,060
Qualified Investment - Mains - Current 1010 Activity to Plant		(\$12,238)	(\$19,049)	(\$82,108)	(\$23,567)		(\$89,402)	(\$28,391)	(\$50,959)	(\$50,877)	(\$106,698)	(\$69,911)	(\$147,332)	(\$680,531)
Qualified Investment - Services - Current 1010 Activity		\$141,194	\$199,112	\$190,692	\$33,394	\$0	\$210,564	\$553,404	\$1,323,444	\$187,569	\$241,513	\$126,709	\$1,497,342	\$4,704,937
Quantice investment - Services - Current 1010 Activity		\$12,238	\$19,049	\$82,108	\$23,567	\$0	\$89,402	\$28,391	\$50,959	\$50,877	\$106,698	\$69,911	\$147,332	\$680,531
Total Qualified Investment - Mains 1070	\$435,452	\$396,360	\$602,555	\$929.031	\$1,170,270	\$1,837,276	\$7 7 CO 707	£0.007.60-	01 851 655					
Total Qualified Investment - Services 1070	\$4,002	\$4,002	\$40,065	\$13,541	\$36,281	\$1,637,276 \$82,758	\$2,269,705	\$2,297,502	\$1,351,031	\$1,783,780	\$2,416,001	\$2,340,560	\$1,485,442	\$1,485,442
Total Qualified Investment - Mains 1010	\$14,799,222	\$14,940,416	\$15,139,527	\$15,330,220	\$15,363,614	\$15,363,614	\$20,061 \$15,574,177	\$46,421	\$50,059	\$75,567	\$61,138	\$30,446	\$22,531	\$22,531
Total Qualified Investment - Services 1010	\$1,052,498	\$1.064.736	\$1,083,785	\$1,165,893	\$1,189,459	\$1,189,459	\$15,574,177 \$1,278,861	\$16,127,582	\$17,451,026	\$17,638,595	\$17,880,108	\$18,006,817	\$19,504,159	\$19,504,159
Total Qualified Investment	\$16,291,174			\$17,438,684	\$17,759,625	\$18,473,107	\$19,142,804	\$1,307,252 \$19,778,757	\$1,358,211 \$20,210,326	\$1,409,088 \$20,907,030	\$1,515,786 \$21,873,033	\$1,585,698 \$21,963,520	\$1,733,029 \$22,745,161	\$1,733,029 \$22,745,161
Less: Accumulated Depreciation	(\$530,661)	(\$565,094)	(\$599,861)	(\$635,102)	(\$670,940)	(\$706,904)	(\$742,868)	(6770 480)	(60.17.200)	(10.50				
Net Book Value	\$15,760,513	\$15.840,420	\$16,266,072	\$16,803,582	\$17,088,685	\$17,766,203	(\$742,868) \$18,399,936	(\$779,489) \$18,999,268	(\$817,373) \$19,392,953	(\$858,240) \$20,048,790	(\$899,627) \$20,973,406	(\$941,778) \$21,021,742	(\$984,361) \$21,760,800	(\$984,361) \$21,760,800
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	\$19,196,111	\$19,720,872	\$20,511,098	\$20,997,574	\$21,391,271	
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 (00)	A (200)	
Approved Depreciation Rate-Services		2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.00%	2.60%	2.60% 2.70%	2.60% 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%	7.00/08/	2 00/202	T 00/	
Debt - Cost of Capital		1.1800%	1.1800%	1.1800%	1.1800%	1,1800%	1.1800%	1.1800%	1.1800%	1,1800%	7.9060% 1.1800%	7.9060% 1.1800%	7.9060% 1,1800%	
Equity Component - inclusive of Income Tax Gross-up		\$104,099	\$105,764	\$108,937	\$111.647	\$114,818	\$119,137	\$123,199	£176 470	£100 000	61 26.121			
Debt Component		\$15,537	\$15,786	\$16,259	\$16,664	\$17,137	\$119,137	\$125,199 \$18,388	\$126,470 \$18,876	\$129,928	\$135,134	\$138,339	\$140,933	\$1,458,405
Return Requirement	_	\$119,636	\$121,550	\$125,196	\$128,310	\$131,955	\$136,919	\$141,587	\$18,876	\$19,392 \$149,320	\$20,169 \$155,303	\$20,648 \$158,987	\$21,035 \$161,968	\$217,672 \$1,676,077
Investment Expenses									······································					
Depreciation Expense - Mains		\$32.065	\$32 371	\$37 802	\$23.215	\$72 199	622 200	000 744	62 4 6 4 2					

Depreciation Expense - Mains Depreciation Expense - Services Property Taxes General Public Notice Expense and Customer Notice Expense Total Expense		\$32,065 \$2,368 \$26,268 <u>\$0</u> \$60,701	\$32,371 \$2,396 \$26,268 \$3,445 \$64,480	\$32,802 \$2,439 \$26,268 \$61,509	\$33,215 \$2,623 \$26,268 \$449 \$62,555	\$33,288 \$2,676 \$26,268 \$3,825 \$66,057	\$33,288 \$2,676 \$26,268 \$62,232	\$33,744 \$2,877 \$26,268 \$0 \$62,889	\$34,943 \$2,941 \$26,268 	\$37,811 \$3,056 \$26,268 \$6,175 \$73,310	\$38,217 \$3,170 \$26,268 \$14,419 \$82,074	\$38,740 \$3,411 \$26,268 \$68,419	\$39,015 \$3,568 \$26,268 (\$2,118) \$66,733	\$419,499 \$34,201 \$315,216 <u>\$29,727</u> \$798,643
Total Revenue Requirements		\$180,337	\$186,030	\$186,705	\$190,865	\$198,011	\$199,151	\$204,476	\$213,031	\$222,630	\$237,377	\$227,406	\$228,701	\$2,474,720
GRIP Surcharge Revenues Collected Month	\$	250,285	247,074 \$	240,794 \$	220,518 \$	199,295 \$	183,434 \$	188,574 \$	199,309 \$	192,124 \$	210,257 \$	224,383 \$	234,324	\$2,590,372
Beginning True-Up (Over) and Under Recovery for the Month Monthly Interest (Expense)/Income Ending (Over) and Under Recovery	\$ <u>\$</u> 125,419 \$	(69,948) 3 25 9 55,495 5	(61,044) \$ 7 \$ (5,542) \$	(9) \$	(29,653) \$ (21) \$ (89,314) \$	(1,284) \$ (28) \$ (90,625) \$	15,717 \$ (26) \$ (74,934) \$	15,902 \$ (20) \$ (59,052) \$	13,722 \$ (17) \$ (45,347) \$	30,506 \$ (10) \$ (14,851) \$	27,120 \$ - \$ 12,269 \$	3,023 \$ 5 \$ 15,296 \$	(5,623) 6 9,679	\$ 125,419 (\$115,652) (\$88) \$ 9,679
Beg of Month Annual Interest Rate End of Month Annual Interest Rate Average Monthly Interest Rate		0.34% 0.34% 0.03%	0.34% 0.35% 0.03%	0.35% 0,32% 0.03%	0.32% 0.36% 0.03%	0.36% 0.38% 0.03%	0.38% 0.36% 0.03%	0.36% 0.35% 0.03%	0.35% 0.43% 0.03%	0.43% 0.39% 0.03%	0.39% 0.43% 0.03%	0.43% 0.47% 0.04%	0.47% 0.63% 0.05%	

7

Florida Division of Chesapeake Utilities Corporation

Gas Reliability Infrastructure Program (GRIP) Calculation of the Projected Revenue Requirements

January 1, 2017 through December 31, 2017													Page 8 of 15	(mo-t)
	Beginning	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Projection	Projection	Projection	Projection	Projection	Year End
Item	Balance	<u>Jan</u>	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Qualified Investment														
Qualified Investment - Mains - Current 1070 Activity Qualified Investment - Mains - Closed 1070 Activity to Plant		\$422,786 \$0	\$197,035	\$250,549	\$226,760	\$273,400	\$369,218	\$153,649	\$125,783	\$125,783	\$125,783	\$125,783	\$125,783	\$2,522,313
Qualified Investment - Services - Current 1070 Activity		\$0 \$37,298	(\$91,990) \$45,767	(\$1,752,836) \$97,326	(\$299,429) \$29,062	(\$188,904) \$5,770	(\$177,424) \$34,094	(\$510,323) \$33,801	(\$119,494) \$9,468	(\$119,494) \$9,468	(\$119,494) \$9,468	(\$119,494) \$9,468	(\$119,494) \$9,468	(\$3,618,376) \$330,458
Qualified Investment - Services - Closed 1070 Activity to Plant		\$0	(\$46,569)	(\$61,466)	\$2,530	(\$103,456)	(\$47,750)	(\$28,159)	(\$9,468)	(\$9,468)	(\$9,468)	(\$9,468)	39,468 (\$9,468)	(\$332,209)
Qualified Investment - Mains - Current 1010 Activity		\$0	\$91,990	\$1,752,836	\$299,429	\$188,904	\$177,424	\$510,323	\$119,494	\$119,494	\$119,494	\$119,494	\$119,494	\$3,618,376
Qualified Investment - Services - Current 1010 Activity		\$ 0	\$46,569	\$61,466	(\$2,530)	\$103,456	\$47,750	\$28,159	\$9,468	\$9,468	\$9,468	\$9,468	\$9,468	\$332,209
Total Qualified Investment - Mains 1070	\$1,485,442	\$1,908,228	\$2,013,274	\$510,986	\$438,318	\$522.813	\$714.607	\$357.934	\$364,223	\$370,512	\$376,801	\$383,090	\$389,379	\$389,379
Total Qualified Investment - Services 1070	\$22,531	\$59,829	\$59,027	\$94,887	\$126,479	\$28,793	\$15,137	\$20,780	\$20,780	\$20,780	\$20,780	\$20,780	\$20,780	\$20,780
Total Qualified Investment - Mains 1010	\$19,504,159	\$19,504,159	\$19,596,149	\$21,348,986	\$21,648,414	\$21,837,319	\$22,014,743	\$22,525,065	\$22,644,559	\$22,764,053	\$22,883,547	\$23,003,041	\$23,122,535	\$23,122,535
Total Qualified Investment - Services 1010	\$1,733,029	\$1,733,029	\$1,779,598	\$1,841,065	\$1,838,534	\$1,941,990	\$1,989,740	\$2,017,899	\$2,027,367	\$2,036,835	\$2,046,303	\$2,055,771	\$2,065,239	\$2,065,239
Total Qualified Investment	\$22,745,161	\$23,205,245	\$23,448,048	\$23,795,923	\$24,051,746	\$24,330,915	\$24,734,227	\$24,921,678	\$25,056,929	\$25,192,180	\$25,327,431	\$25,462,682	\$25,597,933	\$25,597,933
Less: Accumulated Depreciation	(\$984,361)	<u>(</u> \$1,030,519)	(\$1,076,677)	(\$1,123.139)	(\$1,173,537)	(\$1,224,579)	(\$1,276,262)	(\$1,328,438)	(\$1,381,782)	(\$1,435,407)	(\$1,489,312)	(\$1,543,497)	(\$1,597,962)	(\$1,597.962)
Net Book Value	\$21,760,800	\$22,174,726	\$22,371,371	\$22,672,784	\$22,878,209	\$23,106,336	\$23,457,965	\$23,593,240	\$23,675,147	\$23,756,773	\$23,838,119	\$23,919,185	\$23,999,971	\$23,999,971
Average Net Qualified Investment	-	\$21,967,763	\$22,273,048	\$22,522,077	\$22,775,496	\$22,992,272	\$23,282,151	\$23,525,603	\$23,634,194	\$23,715,960	\$23,797,446	\$23,878,652	\$23,959,578	
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		7.5750%	7.5750%	7.5750%	7,5750%	7,5750%	7,5750%	7.5750%	7,5750%	7,5750%	7.5750%	7.5750%	7.5750%	
Debt - Cost of Capital		1.0800%	1.0800%	1.0800%	1.0800%	1.0800%	1.0800%	1,0800%	1.0800%	1,0800%	1.0800%	1.0800%	1.0800%	
Equity Component - inclusive of Income Tax Gross-up Debt Component		\$138,672 \$19,771	\$140,599	\$142,171	\$143,770	\$145,139	\$146,969	\$148,505	\$149,191	\$149,707	\$150,221	\$150,734	\$151,245	\$1,756,922
Return Requirement	-	\$19,771 \$158,442	\$20,046 \$160,644	\$20,270 \$162,440	\$20,498 \$164,268	\$20,693 \$165,832	\$20,954 \$167,923	\$21,173 \$169,678	\$21,271 \$170,462	\$21,344 \$171,051	\$21,418 \$171,639	\$21,491 \$172,225	\$21,564	\$250,492
	-	9150,442	. #100,044	\$102,440	3104,208	3105,852	3107,923	\$109,078	\$170,402	\$171,031	\$171,039	3172,225	\$172,808	\$2,007,414
Investment Expenses														
Depreciation Expense - Mains		\$42,259	\$42,259	\$42,458	\$46,256	\$46,905	\$47,314	\$47,699	\$48,804	\$49,063	\$49,322	\$49,581	\$49,840	\$561,760
Depreciation Expense - Services Property Taxes		\$3,899 \$36,268	\$3,899 \$36,268	\$4,004 \$36,268	\$4,142 \$36,268	\$4,137 \$36,268	\$4,369 \$36,268	\$4,477 \$36,268	\$4,540 \$36,268	\$4,562	\$4,583	\$4,604	\$4,625	\$51,841
General Public Notice Expense and Customer Notice Expense		(\$1,963)	\$30,208	\$30,208	\$30,208 \$0	330,208 \$0	\$3,392	\$30,268 \$0	\$30,268 \$0	\$36,268 \$0	\$36,268 \$0	\$36,268 \$0	\$36,268 \$0	\$435,216 \$1,429
Total Expense	•	\$80,463	\$82,426	\$82,730	\$86,666	\$87,310	\$91,343	\$88,444	\$89.612	\$89,893	\$90,173	\$90,453	\$90,733	\$1,050,246
Total Revenue Requirements	-	\$238,906	\$243,070	\$245,170	\$250,934	\$253,142	\$259,266	\$258,122	\$260,074	\$260,944	\$261,812	\$262.678	\$263,541	\$3,057,660
								·						
GRIP Surcharge Revenues Collected Month	-	\$ 320,712	\$ 297,164	\$ 304,997	\$ 268,374	\$ 158,855	\$ 220,099	\$ 215,254	\$ 208,887	\$ 209,762	\$ 228,825	\$ 236,881	\$ 255,010	\$2,924,819
Beginning True-Up														\$ 9,679
(Over) and Under Recovery for the Month		\$ (81,806)							\$ 51,187	\$ 51,183	\$ 32,987	\$ 25,797	\$ 8,532	\$132,840
Monthly Interest (Expense)/Income		\$ (16)		<u> </u>	-	\$ (111)							\$ 124	(\$156)
Ending (Over) and Under Recovery	\$ 9,679	\$ (72,143)	\$ (126.289)	\$ (186,209)	\$ (203,782)	\$ (109,606)	\$ (70,506)	\$ (27,678)	\$ 23,506	\$ 74,733	\$ 107,802	\$ 133,708	\$ 142,364	\$ 142,364
Beg of Month Annual Interest Rate		0.63%	0.62%	0,63%	0.80%	0.84%	0.86%	0.90%	1.08%	1.08%	1.08%	1.08%	1.08%	
End of Month Annual Interest Rate		0.62%	0.63%	0.80%	0.84%	0.86%	0.90%	1,08%	1.08%	1.08%	1.08%	1.08%		
Average Monthly Interest Rate		0.05%	0,05%	0.06%	0.07%	0.07%	0.07%	0.08%	0.09%	0.09%	0,09%	0.09%	0,09%	

Florida Division of Chesapeake Utilities Corporation

Gas Reliability Infrastructure Program (GRJP) Calculation of the Projected Revenue Requirements January 1, 2018 through December 31, 2018

														rage / or 15	
<u>Item</u> Qualified Inv		Beginning <u>Balance</u>	Jan	Feb	Mar	Apr	May	Jun	Ţnj	Aug	Sep	Oct	Nov	Dec	Year End Total
	Qualified Investment - Mains - Current 1070 Activity		\$255,750	\$255,750	\$255,750	\$255,750	\$255,750	\$255,750	\$255,750	\$255,750	\$255,750	\$255,750	\$255,750	\$255,750	87 0 CO 000
	Qualified Investment - Mains - Closed 1070 Activity to Plant		(\$242,963)	(\$242,963)	(\$242,963)	(\$242,963)	(\$242,963)	(\$242,963)	(\$242,963)	(\$242,963)	(\$242,963)	(\$242,963)	(\$242,963)	\$255,750 (\$242,963)	\$3,069,000 (\$2,915,556)
	Qualified Investment - Services - Current 1070 Activity		\$19,250	\$19,250	\$19,250	\$19,250	\$19,250	\$19,250	\$19,250	\$19,250	\$19,250	\$19,250	\$19,250	\$19,250	(32,913,556) \$231.000
	Qualified Investment - Services - Closed 1070 Activity to Plant		(\$19,250)	(\$19,250)	(\$19,250)	(\$19,250)	(\$19,250)	(\$19,250)	(\$19,250)	(\$19,250)	(\$19,250)	(\$19,250)	(\$19,250)	(\$19,250)	
	Qualified Investment - Mains - Current 1010 Activity Qualified Investment - Services - Current 1010 Activity		\$242,963	\$242,963	\$242,963	\$242,963	\$242,963	\$242,963	\$242,963	\$242,963	\$242,963	\$242,963	\$242,963	\$242,963	\$2,915,556
	Quanties investment - Services - Current 1010 Activity		\$19,250	\$19,250	\$19,250	\$19,250	\$19,250	\$19,250	\$19,250	\$19,250	\$19,250	\$19,250	\$19,250	\$19,250	\$231,000
	Total Qualified Investment - Mains 1070	\$389,379	\$402,166	\$414,953	£427 740	6440 607									
	Total Qualified Investment - Services 1070	\$20,780	\$20,780	\$20,780	\$427,740 \$20,780	\$440,527 \$20,780	\$453,314	\$466,101	\$478,888	\$491,675	\$504,462	\$517,249	\$530,036	\$542,823	\$542,823
	Total Qualified Investment - Mains 1010	\$23,122,535	\$23,365,498	\$23,608,461	\$20,780 \$23,851,424	,	\$20,780	\$20,780	\$20,780	\$20,780	\$20,780	\$20,780	\$20,780	\$20,780	\$20,780
	Total Qualified Investment - Services 1010	\$2,065,239	\$2,084,489	\$2,103,739	\$2,851,424 \$2,122,989	\$24,094,387 \$2,142,239	\$24,337,350	\$24,580,313	\$24,823,276	\$25,066,239	\$25,309,202	\$25,552,165	\$25,795,128	\$26,038,091	\$26,038,091
	Total Qualified Investment	\$25,597,933		\$26,147,933	\$26,422,933	\$26,697,933	\$2,161,489 \$26,972,933	\$2,180,739 \$27,247,933	\$2,199,989	\$2,219,239	\$2,238,489	\$2,257,739	\$2,276,989	\$2,296,239	\$2,296,239
				020,147,555	\$20,422,735	320,097,933	\$20,972,935	\$27,247,955	\$27,522,933	\$27,797,933	\$28,072,933	\$28,347,933	\$28,622,933	\$28,897,933	\$28,897,933
	Less: Accumulated Depreciation	(\$1,597,962)	(\$1,652,708)	(\$1,708,023)	(\$1,763,908)	(\$1,820,363)	(01 077 200)	(21 02 4 000)	(01.000.000)						
	Net Book Value	\$23,999,971		\$24,439,910	\$24,659,025	\$24,877,570	(\$1,877,388) \$25,095,545	(\$1,934,982) \$25,312,951	(\$1,993,146)	(\$2,051,880)	(\$2,111,183)	(\$2,171.057)	(\$2,231,500)	(\$2,292,512)	
				421,127,710	324,037,025	324,877,370	\$23,093,345	- \$25,512,951	\$25,529,787	\$25,746,053	\$25,961,750	\$26,176,876	\$26,391,433	\$26,605,421	\$26,605,421
	Average Net Qualified Investment		\$24,110.098	\$24,330,068	\$24,549,468	\$24,768,298	\$24,986,558	\$25,204,248	\$25,421,369	\$25 637,920	\$25,853,902	\$26,069,313	\$26,284,155	\$26,498,427	
Depreciation														020,190,127	-
	Approved Depreciation Rate-Mains		2.60%	2.60%	2,60%	2.60%	2,60%	2.60%	2.60%	2.60%	2 (00)				
	Approved Depreciation Rate-Services	•	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.60%	2.60% 2.70%	2.60% 2.70%	2.60% 2.70%	2.60% 2.70%	
Return on Av	verage Net Qualified Investment														
	Equity - Cost of Capital, inclusive of Income Tax Gross-up		7.5750%	7.5750%	7.5750%	7,5750%	7.5750%	7.5750%	7.5750%	7.5750%	7,5750%	7.5750%			
	Debt - Cost of Capital		1.0800%	1.0800%	1.0800%	1.0800%	1,0800%	1.0800%	1.0800%	1.0800%	1,0800%	1.0800%	7.5750% 1.0800%	7.5750% 1,0800%	
	Equity Component - inclusive of Income Tax Gross-up		\$152,195	\$153,584	\$154,969	\$156,350	\$157,728	6160.100	#1 <0 (P 0	<u>.</u>					
	Debt Component		\$21.699	\$21.897	\$22,095	\$136,330	\$157,728 \$22,488	\$159,102 \$22.684	\$160,472 \$22,879	\$161,839	\$163,203	\$164,563	\$165,919	\$167,271	\$1,917,194
	Return Requirement	-	\$173,894	\$175,481	\$177,063	\$178.641	\$180,216	\$181,786	\$183,352	\$23,074 \$184,913	\$23,269	\$23,462	\$23,656	\$23,849	\$273,342
							\$100,210	3101,780	\$165,552	3184,915	\$186,471	\$188,025	\$189,574	\$191,120	\$2,190,536
Investment E	xpenses														
	Depreciation Expense - Mains		\$50,099	\$50,625	\$51,152	\$51,678	\$52,205	\$52,731	\$53,257	\$53,784					
	Depreciation Expense - Services		\$4,647	\$4,690	\$4,733	\$4,777	\$4,820	\$4,863	\$4,907		\$54,310	\$54,837	\$55,363	\$55,889	\$635,930
	Property Taxes		\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$4,950 \$40,000	\$4,993 \$40,000	\$5,037	\$5,080	\$5,123	\$58,620
	General Public Notice Expense and Customer Notice Expense	-	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$40,000	\$1,500	\$40,000	\$40,000	\$40,000	\$480,000
	Total Expense	-	\$96,246	\$96,815	\$97,385	\$97,955	\$98,525	\$99.094	\$99,664	\$100,234	\$1,500	\$1,500 \$101,374	\$1,500	\$1,500	\$18,000
		-								3100,234	\$100,803	3101,374	\$101,943	\$102,512	\$1,192,550
Total Revenu	le Requirements	=	\$270,140	\$272,296	\$274,448	\$276,596	\$278,741	\$280,880	\$283,016	\$285,147	\$287,274	\$289,399	\$291.517	\$293,632	\$3,383,086

Florida Division of Chesapeake Utilities Corporation Gas Reliability Infrastructure Program (GRIP) Projection of Qualified Mains & Services Revenue Requirements Surcharge Calculation - January 1, 2018 through December 31, 2018 Per Therm/Bill Rate

1.	1/1/18-12/31/18 Qualified Mains & Services Replacement Revenue Requirements		\$ 3,383,086
	Mains 96%	\$3,247,763	
	Services 4%	\$135,323	
	Net	\$3,383,086	
2.	TRUE-UP from Prior Period (Over)/Under Recovery Estimated thru 12/2017	540.	\$ 142,364
3.	2018 Qualified Mains & Services Replacement Revenue Requirements		\$ 3,525,450
	Mains 96%	\$3,384,432	
	Services 4%	\$141.018	

4% \$141,018

Schedule D-1 Exhibit_ Michael Cassel (MC-1) Page 10 of 15

Net					4%	\$141 \$3,525											
RATE CLASS	2018 BILLS	2018 THERMS	SERVICES COS %	MAINS COS %	SERVICES REV REQ	MAII REV F		DOLLARS PER THERM	EXPANSION	GRIP FACTORS PER THERM	\$ PER BILL	EXPANSION FACTOR	Experimental GRIP FACTORS PER BILL	ANNUAL COST PER BILL	TYPICAL ANNUAL THERMS	ANNUAL COST	AVERAGE MONTHLY COST
FTS-A	15,542	95,178	14.34%	0.951%	\$ 20,222	\$ 32	186 \$52,-	408 \$0.5506	3 1.00503	\$ 0.55340	\$ 3.37	1.00503	\$ 3.39	\$ 40.67	110	\$60.87	\$5.07
FTS-B	27,931	296,034	9.74%	1.142%	\$ 13,735	\$ 38	,650 \$52,3	385 \$0.1769	5 1.00503	\$ 0,17785	\$ 1.88	1,00503	\$ 1.88	\$ 22.62	215	\$38.24	\$3.19
FTS-1	137,039	2,089,574	33.87%	5.861%	\$ 47,763	\$ 198	362 \$246,	125 \$0.1177	1.00503	\$ 0.11838	\$ 1,80	1.00503	\$ 1.81	\$ 21.66	275	\$32.55	\$2.71
FTS-2	9,870	577,478	12.69%	1.611%	\$ 17,895	\$ 54	523 \$ 72,4	\$18 \$0,1254	1.00503	\$ 0.12603	\$ 7.34	1.00503	\$ 7.37	\$ 88.49	875	\$110.28	\$9 .19
FTS-2.1	8,662	989,717	7.83%	3.193%	\$ 11,042	\$ 108	065 \$ 119,	\$0,12034	1.00503	\$ 0.12095	\$ 13.75	1.00503	\$ 13.82	\$ 165.84	1,575	\$190.50	\$15.87
FTS-3	3,367	1,098,582	3.93%	1.567%	\$ 5,542	\$ 53	034 \$58,5	\$0.05332	1.00503	\$ 0.05359	\$ 17.40	1,00503	\$ 17.48	\$ 209.82	4,000	\$214.35	\$17.86
FTS-3.1	4,033	2,430,303	3.91%	4.294%	\$ 5,514	\$ [45	328 \$150,8	\$0.0620	1.00503	\$ 0.062 3 8	\$ 37.40	1.00503	\$ 37.59	\$ 451.08	7,300	\$455.37	\$37.95
FTS-4		2,914,525	4.37%	6.162%	\$ 6,162	\$ 208	549 \$214,	\$0.0736	1.00503	\$ 0.07404					12,500	\$925.50	\$77.12
FTS-5		1,146,649	1.24%	2.570%	\$ 1,749	\$ 86	980 \$88,	\$0.0773	1.00503	\$ 0.07777					37,500	\$2,916.39	\$243.03
FTS-6		1,528,791	1.25%	2.750%	\$ 1,763	\$ 93	072 \$94,1	\$0.06203	1.00503	\$ 0.06234					75,000	\$4,675.85	\$389.65
FTS-7		3,333,200	2.20%	7.615%	\$ 3,102	\$ 257	724 \$260,8	\$0.0782	1.00503	\$ 0.07864					150,000	\$11,796.68	\$983.06
FTS-8		5,002,772	1.62%	10.708%	\$ 2,284	\$ 362	405 \$364,6	\$89 \$0.07290	1.00503	\$ 0.07326					300,000	\$21,979.22	\$1,831.60
FTS-9		4,771,151	1.48%	15.171%	\$ 2,087	\$ 513	452 \$515,5	\$39 \$0.1080	1.00503	\$ 0.10860					550,000	\$59,728.29	\$4,977.36
FTS-10		1,736,091	0.45%	6.539%	\$ 635	\$ 221	308 \$221,9	\$0.12784	1.00503	\$ 0.12848					850,000	\$109,211.13	\$9,100.93
FTS-11		3,672,350	0.61%	13.551%	\$ 860	\$ 458	624 \$459,4	\$0.12512	1.00503	\$ 0.12575					1,750,000	\$220,061.16	\$18,338.43
FTS-12		16,953,540	0.47%	16.315%	\$ 663	\$ 552	170 \$552,8	\$33 \$ 0.03261	1.00503	\$ 0.03277					3,000,000	\$98,318.18	\$8,193.18
FTS-13	_		N/A	0.000%	\$-	\$	-	\$0 N/A		N/A					-	N/A	
TOTAL	206,444	48,635,935	100.00%	100.000%	\$ 141,018	\$ 3,384	432 \$ 3,525,4	50									

C:\Users\keabet\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Outlook\OLVHGAE2\ATTACHMENT B-2018 GRIP Projections-File Version.xlsx

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) Page 11 of 15

	Projected Total Investment
Earnings Surveillance Report - December 31, 2016	
Equity Cost Rate	11.00%
Weighted Equity Cost Rate	4.50%
Revenue Expansion Factor	1.6553
Weighted Equity Cost Rate, times Revenue Expansion Factor	7.450%
Long Term Debt-CU	0.720%
Short Term Debt	0.280%
Short Term Debt-Refinanced LTD	0.000%
Customer Deposits	0.040%
Tax Credits-Weighted Cost	0.000%
Weighted Debt Cost Rate	1.040%
Overall Weighted Cost Rate	5.54%

C:\Users\keabet\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Outlook\OLVHGAE2\ATTACHMENT B-2018 GRIP Projections-File Version.xlsx

Florida Public Utilities-Ft. Meade Gas Reliability Infrastructure Program (GRIP) Calculation of the Projected Revenue Requirements January 1, 2016 through December 31, 2016

.

January 1, 2016 through December 31, 2016												Pa	ge 12 of 15	
Item	Beginning Balance	ACTUAL <u>Jan</u>	ACTUAL Feb	ACTUAL Mar	ACTUAL Apr	ACTUAL May	ACTUAL Jun	ACTUAL Jul	ACTUAL Aug	ACTUAL Sep	ACTUAL Oct	ACTUAL Nov	ACTUAL Dec	Year End <u>Total</u>
Qualified Investment								_		and the second s	2020		200	1000
Qualified 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
Qualified Investment - Services - Current 1070 Activity Qualified Investment - Services - Closed 1070 Activity to Plant		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,771	\$9,933	\$49,166	\$70,871
Qualified Investment - Mains - Current 1010 Activity		S0 S0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$70,871)	(\$70,871)
Qualified Investment - Services - Current 1010 Activity		50 50	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0	\$0	\$0	\$0
		50	40	30	20	\$U	30	30	20	30	\$0	\$0	\$70,871	\$70,871
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	\$11,771	\$21,704	(\$1)	(\$1)
Total Qualified Investment - Mains 1010 Total Qualified Investment - Services 1010	\$0 \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Qualified Investment	\$0 \$0		\$0 \$0	<u>\$0</u> \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0	\$0	\$0	\$0	\$0	\$70,871	\$70,871
Your Quarted Investment		30			<u>\$0</u>	\$0	<u></u>	\$0	\$0	\$0	\$11,771	\$21,704	\$70,871	\$70,871
Less: Accumulated Depreciation Net Book Value	\$0	\$0	\$0	\$0	\$0	\$0	<u>\$0</u>	\$0	\$0	\$0	\$0	\$0	\$0	\$0
inel Book value	\$0	SO	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,771	\$21,704	\$70,871	\$70,871
Average Net Qualified Investment	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,886	\$16,738	\$46,287	
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%	2.80%	2,50%	
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	6 0	\$ 20								
Debt Component		\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$34 \$5	\$98	\$270	\$402
Return Requirement	-	\$0	\$0	\$0	\$0	\$0		\$0	<u>\$0</u>	\$0	- <u> </u>	\$15 \$113	\$41 \$311	\$61 \$463
	-													3403
Investment Expenses														
Depreciation Expense - Mains Depreciation Expense - Services		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Property Taxes		\$0 \$0	\$0 \$0	\$0 \$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	\$0 \$0	\$0 \$0	\$0	\$0 \$0	\$0	\$0
Total Expense	-	\$0	\$0	\$0	\$0	\$0	\$0			\$0	\$0 \$0	\$0 \$0	\$2,118 \$2,118	\$2,118 \$2,118
Total Revenue Requirements	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0						
•	-			30				30	<u>\$0</u>	\$0	\$40	\$113	\$2,429	\$2,581
GRIP Surcharge Revenues Collected Month														\$0
Beginning True-Up														s -
(Over) and Under Recovery for the Month			\$ - :	\$-\$	s - :	\$ - !	s - s	· - •	- \$	- \$	40 :	\$ 113 \$		\$2,581
Monthly Interest (Expense)/Income		<u>s</u> -							- 5					\$1
Ending (Over) and Under Recovery	<u> </u>	<u>\$</u>	\$	<u>ss</u>	5 - 5	<u> </u>	<u> </u>	<u>-</u> s		- \$	40	§ 152 \$	2,582	
Beg of Month Annual Interest Rate		0.34%	0.34%	0.35%	0.32%	0,36%	0,38%	0.36%	0.35%	0.35%	0,39%	0,43%	0.47%	
End of Month Annual Interest Rate		0.34%	0.35%	0.32%	0.36%	0,38%	0,36%	0.35%	0.35%	0.35%	0,39%	0.43%	0.47%	
Average Monthly Interest Rate		0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0,03%	0.04%	0.05%	
											/0	0.01.0	0,0070	

~

Schedule B-1

Exhibit_____ Michael Cassel (MC-1)

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

Calculation of the Projected Revenue Requirements January 1, 2017 through December 31, 2017												м	chibit ichael Cassel (! age 13 of 15	MC-1)
<u>Item</u> Oualified Investment	Beginning Balance	Actual Jan	Actual <u>Feb</u>	Actual <u>Mar</u>	Actual Apr	Actual May	Actual Jun	Actual Jul	Projection Aug	Projection Sep	Projection Oct	Projection Nov	Projection Dec	Year End Total
Qualified Investment Qualified Investment - Mains - Current 1070 Activity														
Qualified Investment - Mains - Closed 1070 Activity to Plant		\$0 \$0	\$0 \$0	\$0 \$0	\$0 50	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Qualified Investment - Services - Current 1070 Activity		\$38,132	\$0 (\$762)	۵0 (\$2,592)	\$0 \$24,406	\$0 \$16,625	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$ 0
Qualified Investment - Services - Closed 1070 Activity to Plant		\$00,152	(3702) \$0	(\$2,392)	\$24,406 \$0	(\$32,901)	\$1,701 (\$17,919)	\$4,206 (\$3,023)	\$0 \$0	\$0 \$0	\$0 \$0	\$0	\$0	\$81,717
Qualified Investment - Mains - Current 1010 Activity		\$0	\$0	\$0	\$0	\$0	(317,319) \$0	(33,023) \$0	\$0 \$0	50 50	\$0 \$0	\$0 \$0	\$0	(\$80,127)
Qualified Investment - Services - Current 1010 Activity		\$0	\$0	\$26,283	\$0 \$0	\$32,901	\$17,919	\$3,023	\$0	30 S0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$80.127
				,				**,***	45	50	30	20	30	\$80,127
Total Qualified Investment - Mains 1070	\$0	\$0	\$ 0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	5 0
Total Qualified Investment - Services 1070	(\$1)	\$38,132	\$37,369	\$8,495	\$32,901	\$16,625	\$407	\$1,589	\$1,589	\$1,589	\$1,589	\$1,589	\$1,589	\$0 \$1,589
Total Qualified Investment - Mains 1010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,585 \$0
Total Qualified Investment - Services 1010	\$70,871	\$70,871	\$70,871	\$97,154	\$97,154	\$130,056	\$147,975	\$150,998	\$150,998	\$150,998	\$150,998	\$150,998	\$150,998	\$150,998
Total Qualified Investment	\$70,871	\$109,003	\$108.240	\$105,649	\$130,055	\$146,680	\$148,382	\$152,587	\$152,587	\$152,587	\$152,587	\$152,587	\$152,587	\$152,587
Less: Accumulated Depreciation	S 0	(\$159)	(\$318)	(\$477)	(\$696)	(\$915)	(\$1,208)	(#1 241)	(#1.001)	(*** ****				
Net Book Value	\$70,871	\$108,844	\$107,922	\$105,172	\$129,359	\$145,765	\$147,174	(\$1,541) \$151_046	(\$1,881) \$150,706	(\$2,221) \$150 66	(\$2,561) \$150.626	(\$2,901)	(\$3,241)	(\$3,241)
				0100,172	0122,555	3143,765	3147,174	3131,040	\$130,700	3130,00	3150,026	\$149,686	\$149,46	\$149,346
Average Net Qualified Investment		\$89,857	\$108,383	\$106,547	\$117,265	\$137,562	\$146,470	\$149,110	\$150,876	\$150,536	\$150,196	\$149,856	\$149,516	
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%	2.80%	
Return on Average Net Qualified Investment														
Equity - Cost of Capital, inclusive of Income Tax Gross-up		7,4500%	7,4500%	7.4500%	7.4500%	7.4500%	7.4500%	7.4500%		-				
Debt - Cost of Capital		1.0400%	1.0400%	1.0400%	1,0400%	1.0400%	1.0400%	1.0400%	7.4500% 1.0400%	7.4500% 1.0400%	7.4500% 1.0400%	7.4500%	7.4500%	
					11010070	1.040070	1.040076	1,040070	1.040076	1,040070	1,0400%	1.0400%	1.0400%	
Equity Component - inclusive of Income Tax Gross-up		\$558	\$673	\$661	\$728	\$854	\$909	\$926	\$937	\$935	\$932	\$930	\$928	\$9,972
Debt Component		\$78	\$94	\$92	\$102	\$119	\$127	\$129	\$131	\$130	\$130	\$130	\$130	\$1,392
Return Requirement		\$636	\$767	\$754	\$830	\$973	\$1,036	\$1,055	\$1,067	\$1,065	\$1,063	\$1,060	\$1,058	\$11,364
Investment Expenses														
Depreciation Expense - Mains		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	S 0	\$0	e 0	
Depreciation Expense - Services		\$159	\$159	\$159	\$219	\$219	\$293	\$333	\$340	\$340	\$340	\$340	\$0 \$340	\$0 \$3,241
Property Taxes		\$118	\$118	\$118	\$118	\$118	\$118	\$118	\$118	\$118	\$118	\$118	\$118	\$1,416
General Public Notice Expense and Customer Notice Expense	_	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	50	\$0	\$0	\$0	\$0
Total Expense		\$277	\$277	\$277	\$337	\$337	\$411	\$451	\$458	\$458	\$458	\$458	\$458	\$4,657
Total Revenue Requirements	_	\$913	\$1,044	\$1,031	\$1,167	\$1,310	\$1,447	\$1,506	\$1,525	\$1,523	\$1,521	\$1,518	\$1,516	\$16,021
GRIP Surcharge Revenues Collected Month	5	3,807	\$ 4,084 \$	3,222 \$	2,988 \$	2,243 \$	2,200 S	1,892 \$	2.638 \$	2,638 \$	2.638	2,638 \$	2,638	\$33,624
Beginning True-Up														355,024
(Over) and Under Recovery for the Month	\$ \$	2,582 (2,894) 5	\$ (3,040) \$	(2 101)	(1.831) .	(022)	(750) -							2,582
Monthly Interest (Expense)/Income	2	(2,874) 3		(2,191) \$ (3) \$		(933) \$ (6) \$	(753) \$ (6) \$	(386) \$						(\$17,603)
Ending (Over) and Under Recovery	<u>\$</u> 2,582 \$			(5,546) \$		(8,310) \$	(9,069) \$	(9.463) \$					(13)	(\$82) (15,103)
										(1,,0)) 4	(12,057)	(15,700) 3	(13,103)	(13,103)
Beg of Month Annual Interest Rate End of Month Annual Interest Rate		0.63%	0.62%	0.63%	0.80%	0.84%	0.86%	0.90%	1.08%	1.08%	1.08%	1.08%	1.08%	
Average Monthly Interest Rate		0.62%	0.63%	0.80%	0.84%	0.86%	0.90%	1.08%	1.08%	1.08%	1.08%	1.08%	1.08%	
		0.05%	0.05%	0.060%	0.068%	0.07%	0.07%	0.08%	0.09%	0.09%	0.09%	0.09%	0.09%	

Schedule C-2

Exhibit___

Florida Public Utilities-Ft. Meade Gas Reliability Infrastructure Program (GRIP) Calculation of the Projected Revenue Requirements January 1, 2018 through December 31, 2018

Calculation of the Projected Revenue Requirements January 1, 2018 through December 31, 2018												N	Aichael Cassel (1	MC-1)
												P	age 14 of 15	
Itam	Beginning													Year End
Item Oualified Investment	Balance	<u>Jan</u>	Feb	<u>Mar</u>	<u>Apr</u>	May	Jun	Jul	Aug	<u>Şep</u>	Oct	Nov	Dec	Total
Qualified Investment - Mains - Current 1070 Activity		\$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	50 50	S0 S0	\$0 \$0	S0 S0	\$0 \$0	\$0
Qualified Investment - Services - Current 1070 Activity		\$8,333	\$8,333	\$8,333	\$8,333	\$8,333	\$8,333	\$8,333	\$8,333	\$8,333	\$8,333	\$0 \$8,333	\$0 \$8,333	\$0
Qualified Investment - Services - Closed 1070 Activity to Plant		(\$8,333)	(\$8,333)	(\$8,333)	(\$8,333)	(\$8,333)	(\$8,333)	(\$8,333)	(\$8,333)	(\$8,333)	(\$8,333)	\$8,333) (\$8,333)	38,333) (\$8,333)	\$100,000 (\$100,000)
Qualified Investment - Mains - Current 1010 Activity		\$0	\$0	\$0	\$0	\$0	\$0	\$0	(40,555) \$0	\$0	(\$0,555) \$0	(36,353) \$0	(38,333) \$0	(\$100,000) \$0
Qualified Investment - Services - Current 1010 Activity		\$8,333	\$8,333	\$8,333	\$8,333	\$8,333	\$8,333	\$8,333	\$8,333	\$8,333	\$8,333	\$8,333	\$8,333	\$100,000
Total Qualified Investment - Mains 1070	\$0	\$ 0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$ 0		6 0		
Total Qualified Investment - Services 1070	\$1,589	\$1,589	\$1,589	\$1,589	\$1,589	\$1,589	\$1,589	\$1,589	\$1,589	\$1,589	\$0 \$1,589	\$0 \$1,589	\$0 \$1,589	\$0
Total Qualified Investment - Mains 1010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,589	\$1,389	31,389 \$0	\$1,589	\$0 \$1,589	\$1,589 \$0
Total Qualified Investment - Services 1010	\$150,998	\$159,331	\$167,665	\$175,998	\$184,331	\$192,665	\$200,998	\$209,331	\$217,665	\$225,998	\$234,331	\$242,665	\$250,998	\$250,998
Total Qualified Investment	\$152,587	\$160,920	\$169,254	\$177,587	\$185,920	\$194,254	\$202,587	\$210,920	\$219,254	\$227,587	\$235,920	\$244,254	\$252,587	\$252,587
Less: Accumulated Depreciation	(02.241)	(00.001)	(*** ****)											
Net Book Value	<u>(\$3,241)</u> \$149,346	(\$3,581) \$157,339	(\$3,939) \$165,315	(\$4,316)	(\$4,712)	(\$5,127)	(\$5,560)	(\$6,012)	(\$6,483)	(\$6,973)	(\$7,481)	(\$8,008)	(\$8,554)	(\$8,554)
	\$149,540	3137,339	\$165,515	\$173,271	\$181,208	\$189,127	\$197,027	\$204,908	\$212,771	\$220,614	\$228,439	\$236,246	\$244,033	\$244,033
Average Net Qualified Investment	-	\$153,343	\$161,327	\$169,293	\$177,240	\$185,168	\$193,077	\$200,968	\$208,840	\$216,692	\$224,527	\$232,343	\$240,139	
Average Net Qualified Investment	=	\$153,343	\$161,327	\$169,293	\$177,240	\$185,168	\$193,077	\$200,968	\$208,840	\$216,692	\$224,527	\$232,343	\$240,139	
Depreciation Rates	=								<u>.</u> ,,		. <u> </u>		· ·	
	=	\$153,343 2.60% 2.70%	\$161,327 2.60% 2.70%	\$169,293 2.60% 2.70%	\$177,240 2.60% 2.70%	\$185,168 2.60% 2.70%	\$193,077 2.60% 2.70%	\$200,968 2.60% 2.70%	\$208,840 2.60% 2.70%	\$216,692 2.60% 2.70%	\$224,527 2.60% 2.70%	\$232,343 2.60% 2.70%	\$240,139 2.60% 2.70%	
Depreciation Rates Approved Depreciation Rate-Mains	2	2.60%	2.60%	2,60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2,60%	2.60%	
Depreciation Rates Approved Depreciation Rate-Mains Approved Depreciation Rate-Services	-	2.60%	2.60% 2.70%	2.60% 2.70%	2.60% 2.70%	2.60% 2.70%	2.60% 2.70%	2.60% 2.70%	2.60% 2.70%	2.60% 2.70%	2.60% 2.70%	2.60% 2.70%	2.60% 2.70%	
Depreciation Rates Approved Depreciation Rate-Mains Approved Depreciation Rate-Services Return on Average Net Qualified Investment	=	2.60% 2.70%	2.60%	2,60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2,60%	2.60%	
Depreciation Rates Approved Depreciation Rate-Mains Approved Depreciation Rate-Services Return on Average Net Qualified Investment Equity - Cost of Capital, inclusive of Income Tax Gross-up Debt - Cost of Capital Equity Component - inclusive of Income Tax Gross-up	2	2.60% 2.70% 7.4500%	2.60% 2.70% 7.4500%	2.60% 2.70% 7.4500%	2.60% 2.70% 7.4500%	2.60% 2.70% 7.4500% 1.0400%	2.60% 2.70% 7.4500% 1.0400%	2.60% 2.70% 7.4500% 1.0400%	2.60% 2.70% 7.4500% 1.0400%	2.60% 2.70% 7.4500% 1.0400%	2.60% 2.70% 7.4500% 1.0400%	2.60% 2.70% 7.4500% 1.0400%	2.60% 2.70% 7.4500% 1.0400%	\$14.670
Depreciation Rates Approved Depreciation Rate-Mains Approved Depreciation Rate-Services Return on Average Net Qualified Investment Equity - Cost of Capital, inclusive of Income Tax Gross-up Debt - Cost of Capital Equity Component - inclusive of Income Tax Gross-up Debt Component	-	2.60% 2.70% 7.4500% 1.0400% \$952 \$133	2.60% 2.70% 7.4500% 1.0400%	2.60% 2.70% 7.4500% 1.0400%	2.60% 2.70% 7.4500% 1.0400%	2.60% 2.70% 7.4500%	2.60% 2.70% 7.4500%	2.60% 2.70% 7.4500% 1.0400% \$1,248	2,60% 2.70% 7.4500% 1.0400% \$1,297	2.60% 2.70% 7.4500% 1.0400% \$1,345	2.60% 2.70% 7.4500% 1.0400% \$1,394	2.60% 2.70% 7.4500% 1.0400% \$1,442	2.60% 2.70% 7.4500% 1.0400% \$1,491	\$14,670 \$7.048
Depreciation Rates Approved Depreciation Rate-Mains Approved Depreciation Rate-Services Return on Average Net Qualified Investment Equity - Cost of Capital, inclusive of Income Tax Gross-up Debt - Cost of Capital Equity Component - inclusive of Income Tax Gross-up	-	2.60% 2.70% 7.4500% 1.0400% \$952	2,60% 2.70% 7.4500% 1.0400% \$1,002	2.60% 2.70% 7.4500% 1.0400% \$1,051	2.60% 2.70% 7.4500% 1.0400% \$1,100	2.60% 2.70% 7.4500% 1.0400% \$1,150	2.60% 2.70% 7.4500% 1.0400% \$1,199	2.60% 2.70% 7.4500% 1.0400%	2.60% 2.70% 7.4500% 1.0400%	2.60% 2.70% 7.4500% 1.0400%	2.60% 2.70% 7.4500% 1.0400%	2.60% 2.70% 7.4500% 1.0400%	2.60% 2.70% 7.4500% 1.0400%	\$14,670 \$2,048 \$16,718
Depreciation Rates Approved Depreciation Rate-Mains Approved Depreciation Rate-Services Return on Average Net Qualified Investment Equity - Cost of Capital, inclusive of Income Tax Gross-up Debt - Cost of Capital Equity Component - inclusive of Income Tax Gross-up Debt Component	-	2.60% 2.70% 7.4500% 1.0400% \$952 \$133	2.60% 2.70% 7.4500% 1.0400% \$1,002 \$140	2.60% 2.70% 7.4500% 1.0400% \$1,051 \$147	2.60% 2.70% 7.4500% 1.0400% \$1,100 \$154	2.60% 2.70% 7.4500% 1.0400% \$1.150 \$160	2.60% 2.70% 7.4500% 1.0400% \$1,199 \$167	2.60% 2.70% 7.4500% 1.0400% \$1.248 \$174	2.60% 2.70% 7.4500% 1.0400% \$1,297 \$181	2.60% 2.70% 7.4500% 1.0400% \$1,345 \$188	2.60% 2.70% 7.4500% 1.0400% \$1,394 \$195	2.60% 2.70% 7.4500% 1.0400% \$1,442 \$201	2.60% 2.70% 7.4500% 1.0400% \$1,491 \$208	\$2,048
Depreciation Rates Approved Depreciation Rate-Mains Approved Depreciation Rate-Services Return on Average Net Qualified Investment Equity - Cost of Capital, inclusive of Income Tax Gross-up Debt - Cost of Capital Equity Component - inclusive of Income Tax Gross-up Debt Component Return Requirement Investment Expenses Depreciation Expense - Mains	-	2.60% 2.70% 7.4500% 1.0400% \$952 \$133	2.60% 2.70% 7.4500% 1.0400% \$1,002 \$140	2.60% 2.70% 7.4500% 1.0400% \$1,051 \$147	2.60% 2.70% 7.4500% 1.0400% \$1,100 \$154	2.60% 2.70% 7.4500% 1.0400% \$1.150 \$160	2.60% 2.70% 7.4500% 1.0400% \$1,199 \$167	2.60% 2.70% 7.4500% 1.0400% \$1.248 \$174 \$1,422	2.60% 2.70% 7.4500% 1.0400% \$1,297 \$181 \$1,478	2.60% 2.70% 7.4500% 1.0400% \$1,345 \$188 \$1,533	2.60% 2.70% 7.4500% 1.0400% \$1,394 \$195 \$1,589	2.60% 2.70% 7.4500% 1.0400% \$1,442 \$201 \$1,644	2.60% 2.70% 7.4500% 1.0400% \$1,491 \$208 \$1,699	\$2,048 \$16,718
Depreciation Rates Approved Depreciation Rate-Mains Approved Depreciation Rate-Services Return on Average Net Qualified Investment Equity - Cost of Capital, inclusive of Income Tax Gross-up Debt - Cost of Capital Equity Component - inclusive of Income Tax Gross-up Debt Component Return Requirement Investment Expenses Depreciation Expense - Mains Depreciation Expense - Services	-	2.60% 2.70% 7.4500% 1.0400% \$952 \$133 \$1,085	2.60% 2.70% 7.4500% 1.0400% \$1,002 \$140 \$1,141	2.60% 2.70% 7.4500% 1.0400% \$1,051 \$147 \$1,198	2.60% 2.70% 7.4500% 1.0400% \$1,100 \$154 \$1,254	2.60% 2.70% 7.4500% 1.0400% \$1,150 \$160 \$1,310	2.60% 2.70% 7.4500% 1.0400% \$1,199 \$167 \$1,366	2.60% 2.70% 7.4500% 1.0400% \$1.248 \$174	2.60% 2.70% 7.4500% 1.0400% \$1,297 \$181	2.60% 2.70% 7.4500% 1.0400% \$1,345 \$188	2.60% 2.70% 7.4500% 1.0400% \$1,394 \$195	2.60% 2.70% 7.4500% 1.0400% \$1,442 \$201 \$1,644 \$0	2.60% 2.70% 7.4500% 1.0400% \$1,491 <u>\$208</u> \$1,699 \$0	\$2,048 \$16,718 \$0
Depreciation Rates Approved Depreciation Rate-Mains Approved Depreciation Rate-Services Return on Average Net Qualified Investment Equity - Cost of Capital, inclusive of Income Tax Gross-up Debt - Cost of Capital Equity Component - inclusive of Income Tax Gross-up Debt Component Return Requirement Investment Expenses Depreciation Expense - Mains Depreciation Expense - Services Property Taxes	-	2.60% 2.70% 7.4500% 1.0400% \$952 \$133 \$1,085 \$0 \$340 \$340 \$249	2.60% 2.70% 7.4500% 1.0400% \$1,002 \$140 \$1,141 \$0 \$358 \$249	2.60% 2.70% 7.4500% 1.0400% \$1.051 \$147 \$1,198 \$0 \$377 \$249	2.60% 2.70% 7.4500% 1.0400% \$1,100 \$154 \$1,254 \$0	2.60% 2.70% 7.4500% 1.0400% \$1,150 \$160 \$1.310	2.60% 2.70% 7.4500% 1.0400% \$1,199 \$167 \$1,366 \$0	2.60% 2.70% 7.4500% 1.0400% \$1.248 \$174 \$1,422 \$0	2.60% 2.70% 7.4500% 1.0400% \$1,297 \$181 \$1,478 \$0	2.60% 2.70% 7.4500% 1.0400% \$1,345 \$188 \$1,533 \$0	2.60% 2.70% 7.4500% 1.0400% \$1,394 \$1,394 \$1,589 \$1,589	2.60% 2.70% 7.4500% 1.0400% \$1,442 <u>\$201</u> \$1,644 \$0 \$527	2.60% 2.70% 7.4500% 1.0400% \$1,491 <u>\$208</u> \$1,699 \$0 \$546	\$2,048 \$16,718 \$0 \$5,313
Depreciation Rates Approved Depreciation Rate-Mains Approved Depreciation Rate-Services Return on Average Net Qualified Investment Equity - Cost of Capital Equity Component - inclusive of Income Tax Gross-up Debt - Component Return Requirement Investment Expenses Depreciation Expense - Mains Depreciation Expense - Services Property Taxes General Public Notice Expense and Customer Notice Expense	-	2.60% 2.70% 7.4500% 1.0400% \$952 \$133 \$1,085 \$0 \$340 \$249 \$0	2.60% 2.70% 7.4500% 1.0400% \$1,002 \$140 \$1,141 \$0 \$358 \$249 \$0	2.60% 2.70% 7.4500% 1.0400% \$1,051 \$147 \$1,198 \$0 \$377 \$249 \$0	2.60% 2.70% 7.4500% 1.0400% \$1,100 \$154 \$1,254 \$0 \$396 \$249 \$0	2.60% 2.70% 7.4500% 1.0400% \$1,150 \$160 \$1,310 \$0 \$415 \$249 \$0	2.60% 2.70% 7.4500% 1.0400% \$1,199 \$167 \$1.366 \$0 \$433	2.60% 2.70% 7.4500% 1.0400% \$1.248 \$174 \$1,422 \$0 \$452	2.60% 2.70% 7.4500% 1.0400% \$1,297 \$181 \$1,478 \$0 \$471	2.60% 2.70% 7.4500% 1.0400% \$1,345 \$188 \$1,533 \$0 \$490	2.60% 2.70% 7.4500% 1.0400% \$1,394 \$1,394 \$1,589 \$1,589 \$0 \$508	2.60% 2.70% 7.4500% 1.0400% \$1,442 \$201 \$1,644 \$0	2.60% 2.70% 7.4500% 1.0400% \$1,491 <u>\$208</u> \$1,699 \$0	\$2,048 \$16,718 \$0 \$5,313 \$2,988
Depreciation Rates Approved Depreciation Rate-Mains Approved Depreciation Rate-Services Return on Average Net Qualified Investment Equity - Cost of Capital, inclusive of Income Tax Gross-up Debt - Cost of Capital Equity Component - inclusive of Income Tax Gross-up Debt Component Return Requirement Investment Expenses Depreciation Expense - Mains Depreciation Expense - Services Property Taxes	-	2.60% 2.70% 7.4500% 1.0400% \$952 \$133 \$1,085 \$0 \$340 \$340 \$249	2.60% 2.70% 7.4500% 1.0400% \$1,002 \$140 \$1,141 \$0 \$358 \$249	2.60% 2.70% 7.4500% 1.0400% \$1.051 \$147 \$1,198 \$0 \$377 \$249	2.60% 2.70% 7.4500% 1.0400% \$1,100 \$154 \$1,254 \$0 \$396 \$249	2.60% 2.70% 7.4500% 1.0400% \$1.150 \$160 \$1.310 \$0 \$415 \$249	2.60% 2.70% 7.4500% 1.0400% \$1,199 \$167 \$1,366 \$0 \$433 \$243	2.60% 2.70% 7.4500% 1.0400% \$1.248 \$174 \$1,422 \$0 \$452 \$249	2.60% 2.70% 7.4500% 1.0400% \$1,297 \$181 \$1,478 \$0 \$471 \$249	2.60% 2.70% 7.4500% 1.0400% \$1,345 \$188 \$1,533 \$0 \$490 \$249	2.60% 2.70% 7.4500% 1.0400% \$1,394 \$195 \$1,589 \$0 \$508 \$249	2.60% 2.70% 7.4500% 1.0400% \$1,442 \$201 \$1,644 \$0 \$527 \$249	2.60% 2.70% 7.4500% 1.0400% \$1,491 \$208 \$1,499 \$208 \$1,699 \$0 \$546 \$249	\$2,048 \$16,718 \$0 \$5,313

Schedule C-2

Exhibit

Florida Public Utilities Company-Fort Meade Gas Reliability Infrastructure Program (GRIP) Projection of Qualified Mains & Services Revenue Requirements Surcharge Calculation - January 1, 2018 through December 31, 2018 Per Therm Rate

Schedule D-1 Exhibit Michael Cassel (MC-1) Page 15 of 15

 1/1/18-12/31/18 Qualified Mains & Services Replac 	\$ 25,019		
Mains	0%	\$0	
Services	100% \$	25,019	
Net	· · · · · · · · · · · · · · · · · · ·	25,019	
2. TRUE-UP from Prior Period (Over)/Under Recover	y Estimated thru 12/2017		\$ (15,103)
3. 2018 Qualified Mains & Services Replacement Rev	enue Requirements		\$ 9,916
Mains	- 0%	\$0	-,
Services	100%	\$9,916	
Net		\$9,916	

RATE SCHEDULE	2018 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	70,505	58.00%	22.00%	\$5,751	\$0	\$5,751	\$0.08157	1.00503	\$0.08198	250	\$20.50	\$1.71
COMMERCIAL SMALL (General Service & GS Transportation)	72,869	17.00%	23.00%	\$1,686	\$0	\$1,686	\$0.02313	1.00503	\$0.02325	2,500	\$58.12	\$4.84
COMM. LRG VOLUME (Large Vol & LV Transportation)	0	25.00%	46.00%	\$2,479	\$0	\$2,479	\$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

<u>143,374 100.00% 100.00% \$9,916</u> \$0 \$9,916