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September 1, 2016

VIA: ELECTRONIC FILING

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

Re: Environmental Cost Recovery Clause
FPSC Docket No. 160007-EI

Dear Ms. Stauffer:

Attached for filing in the above docket, on behalf of Tampa Electric Company, are the original of each of the following:

1. Petition of Tampa Electric Company.

2. Prepared Direct Testimony and Exhibit (PAR-3) of Penelope A. Rusk.

3. Prepared Direct Testimony of Paul L. Carpinone.

Thank you for your assistance in connection with this matter.

Sincerely,

James D. Beasley

JDB/pp
Attachment

cc: All Parties of Record (w/attachment)

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the Petition and Testimonies, filed on behalf of Tampa Electric Company, has been furnished by electronic mail on this 1st day of September 2016 to the following:

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ATTORNEY

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental Cost Recovery Clause.)	DOCKET NO. 160007-EI
	FILED: September 1, 2016

PETITION OF TAMPA ELECTRIC COMPANY

Tampa Electric Company ("Tampa Electric" or "the company"), hereby petitions the Commission for approval of the company's environmental cost recovery true-up and the cost recovery factor proposed for use during the period January 2017 through December 2017, and in support thereof, says:

Environmental Cost Recovery

1. Tampa Electric's final true-up amount for the period January 2015 through December 2015 is an over-recovery of $1,721,184. [See Exhibit No. PAR-1, Document No. 1 (Schedule 42-1A).]

2. Tampa Electric projects an actual/estimated true-up amount for the January 2016 through December 2016 period, which is based on actual data for the period January 1, 2016 through June 30, 2016 and revised estimates for the period July 1, 2016 through December 31, 2016, to be an over-recovery of $5,755,973. [See Exhibit No. PAR-2, Document No. 1 (Schedule 42-1E).]

3. The company's projected environmental cost recovery amount for the period January 1, 2017 through December 31, 2017, adjusted for taxes, is $73,811,867. When spread over projected kilowatt hour sales for the period January 1, 2017 through December 31, 2017, the average environmental cost recovery factor for the new period is 0.387 cents per kWh after application of factors which adjust for variations in line losses. [See Exhibit No. PAR-3, Document No. 7 (Schedule 42-7P).]

4. The accompanying Prepared Direct Testimony and Exhibits of Paul L. Carpinone and Penelope A. Rusk present:

(a) A description of each of Tampa Electric's environmental compliance actions for which cost recovery is sought; and

(b) The costs associated with each environmental compliance action.

5. For reasons more fully detailed in the Prepared Direct Testimony of witness Penelope A. Rusk, the environmental compliance costs sought to be approved for cost recovery proposed in this petition are consistent with the provisions of Section 366.8255, Florida Statutes, and with prior rulings by the Commission with respect to environmental compliance cost recovery for Tampa Electric and other investor-owned utilities.

WHEREFORE, Tampa Electric Company requests this Commission's approval of the company's prior period environmental cost recovery true-up calculations and projected environmental cost recovery charges to be collected during the period January 1, 2017 through December 31, 2017.

DATED this 1st day of September 2016.

Respectfully submitted,

JAMES D. BEASLEY
J. JEFFRY WAHLEN
ASHLEY M. DANIELS
Ausley & McMullen
Post Office Box 391
Tallahassee, FL 32302
(850) 224-9115

ATTORNEYS FOR TAMPA ELECTRIC COMPANY

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Petition, filed on behalf of Tampa Electric Company, has been furnished by electronic mail on this 1st day of September 2016 to the following:

Mr. Charles W. Murphy
Senior Attorney
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Florida Public Service Commission
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ATTORNEY

TECO
TAMPA ELECTRIC
AN EMERA COMPANY

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 160007-EI

ENVIRONMENTAL COST RECOVERY FACTORS

PROJECTIONS

JANUARY 2017 THROUGH DECEMBER 2017

TESTIMONY AND EXHIBIT

OF

PENELOPE A. RUSK

FILED: SEPTEMBER 1, 2016

BEFORE THE PUBLIC SERVICE COMMISSION

PREPARED DIRECT TESTIMONY

OF

PENELOPE A. RUSK

Q. Please state your name, address, occupation and employer.

A. My name is Penelope A. Rusk. My business address is 702 North Franklin Street, Tampa, Florida 33602. I am employed by Tampa Electric Company ("Tampa Electric" or "company") in the position of Manager, Rates in the Regulatory Affairs Department.

Q. Please provide a brief outline of your educational background and business experience.

A. I hold a Bachelor of Arts degree in Economics from the University of New Orleans and a Master of Arts degree in Economics from the University of South Florida. I joined Tampa Electric in 1997, as an Economist in the Load Forecasting Department. In 2000, I joined the Regulatory Affairs Department, where I have assumed positions of increasing responsibility during my 19 years of electric utility experience, including load forecasting, managing cost recovery clauses, project management, and rate setting activities for wholesale and retail rate cases. My duties include managing cost recovery for fuel and purchased power, interchange sales, capacity payments, and approved environmental projects.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to present, for Commission review and approval, the calculation of the revenue requirements and the projected ECRC factors for the period of January 2017 through December 2017. The projected ECRC factors have been calculated based on the current allocation methodology. In support of the projected ECRC factors, my testimony identifies the capital and operating and maintenance ("O&M") costs associated with environmental compliance activities for the year 2017.

Q. Have you prepared an exhibit that shows the determination of recoverable environmental costs for the period of January 2017 through December 2017?

A. Yes. Exhibit No. PAR-3, containing eight documents, was prepared under my direction and supervision. Document Nos. 1 through 8 contain Forms 42-1P through 42-8P, which show the calculation and summary of O&M and capital expenditures that support the development of the environmental cost recovery factors for 2017.

Q. Are you requesting Commission approval of the projected environmental cost recovery factors for the company's various rate schedules?

A. Yes. The ECRC factors, prepared under my direction and supervision, are provided in Exhibit No. PAR-3, Document No. 7, on Form 42-7P. These annualized factors will apply for the period January 2017 through December 2017.

Q. What has Tampa Electric calculated as the net true-up to be applied in the period January 2017 through December 2017?

A. The net true-up applicable for this period is an over-recovery of $7,477,157. This consists of the final true-up over-recovery of $1,721,184 for the period of January 2015 through December 2015 and an estimated true-up over-recovery of $5,755,973 for the current period of January 2016 through December 2016. The detailed calculation supporting the estimated net true-up was provided on Forms 42-1E through 42-9E of Exhibit No. PAR-2 filed with the Commission on August 4, 2016.

Q. Did Tampa Electric include any new environmental compliance projects for ECRC cost recovery for the period from January 2017 through December 2017?

A. No, Tampa Electric is not including any new environmental compliance projects for ECRC cost recovery during 2017.

Q. What are the existing capital projects included in the calculation of the ECRC factors for 2017?

A. Tampa Electric proposes to include for ECRC recovery the 26 previously approved capital projects and their projected costs in the calculation of the 2017 ECRC factors. These projects are:

1) Big Bend Unit 3 Flue Gas Desulfurization ("FGD") Integration
2) Big Bend Units 1 and 2 Flue Gas Conditioning
3) Big Bend Unit 4 Continuous Emissions Monitors
4) Big Bend Fuel Oil Tank No. 1 Upgrade
5) Big Bend Fuel Oil Tank No. 2 Upgrade
6) Big Bend Unit 1 Classifier Replacement
7) Big Bend Unit 2 Classifier Replacement
8) Big Bend Section 114 Mercury Testing Platform

9) Big Bend Units 1 and 2 FGD
10) Big Bend FGD Optimization and Utilization
11) Big Bend NO_x Emissions Reduction
12) Big Bend Particulate Matter ("PM") Minimization and Monitoring
13) Polk NO_x Emissions Reduction
14) Big Bend Unit 4 SOFA
15) Big Bend Unit 1 Pre-SCR
16) Big Bend Unit 2 Pre-SCR
17) Big Bend Unit 3 Pre-SCR
18) Big Bend Unit 1 SCR
19) Big Bend Unit 2 SCR
20) Big Bend Unit 3 SCR
21) Big Bend Unit 4 SCR
22) Big Bend FGD System Reliability
23) Mercury Air Toxics Standards ("MATS")
24) SO_2 Emission Allowances
25) Big Bend Gypsum Storage Facility
26) Coal Combustion Residuals ("CCR") Rule

Some of these projects are described in more detail in the direct testimony of Tampa Electric witness, Paul L. Carpinone.

Q. Have you prepared schedules showing the calculation of the recoverable capital project costs for 2017?

A. Yes. Form 42-3P contained in Exhibit No. PAR-3 summarizes the cost estimates projected for these projects. Form 42-4P, pages 1 through 26, provides the calculations of the costs, which result in recoverable jurisdictional capital costs of $52,435,114.

Q. What are the existing O&M projects included in the calculation of the ECRC factors for 2017?

A. Tampa Electric proposes to include for ECRC recovery the 25 previously approved O&M projects and their projected costs in the calculation of the ECRC factors for 2017. These projects are:

1) Big Bend Unit 3 FGD Integration
2) Big Bend Units 1 and 2 Flue Gas Conditioning
3) SO_2 Emissions Allowances
4) Big Bend Units 1 and 2 FGD
5) Big Bend PM Minimization and Monitoring
6) Big Bend NO_x Emissions Reduction
7) NPDES Annual Surveillance Fees
8) Gannon Thermal Discharge Study
9) Polk NO_x Emissions Reduction
10) Bayside SCR and Consumables

11) Big Bend Unit 4 SOFA
12) Big Bend Unit 1 Pre-SCR
13) Big Bend Unit 2 Pre-SCR
14) Big Bend Unit 3 Pre-SCR
15) Clean Water Act Section 316(b) Phase II Study
16) Arsenic Groundwater Standard Program
17) Big Bend Unit 1 SCR
18) Big Bend Unit 2 SCR
19) Big Bend Unit 3 SCR
20) Big Bend Unit 4 SCR
21) Mercury Air Toxics Standards
22) Greenhouse Gas Reduction Program
23) Big Bend Gypsum Storage Facility
24) Coal Combustion Residuals ("CCR") Rule
25) Effluent Limitations Guidelines ("ELG")

Some of these projects are described in more detail in the direct testimony of Tampa Electric witness, Paul L. Carpinone.

Q. Have you prepared a schedule showing the calculation of the recoverable O&M project costs for 2017?

A. Yes. Form 42-2P contained in Exhibit No. PAR-3 summarizes the recoverable jurisdictional O&M costs for these projects which total $28,800,804 for 2017.

Q. Did you prepare a schedule providing the description and progress reports for all environmental compliance activities and projects?

A. Yes. Project descriptions and progress reports, as well as the projected recoverable cost estimates, are provided in Form 42-5P, pages 1 through 33.

Q. What are the total projected jurisdictional costs for environmental compliance in the year 2017?

A. The total jurisdictional O&M and capital expenditures to be recovered through the ECRC are calculated on Form 42-1P. These expenditures total $81,235,918.

Q. How were environmental cost recovery factors calculated?

A. The environmental cost recovery factors were calculated as shown on Schedules 42-6P and 42-7P. The demand allocation factors were calculated by determining the percentage each rate class contributes to the monthly system peaks and then adjusted for losses for each rate class. The energy allocation factors were determined by calculating the percentage that each rate class contributes to total MWH sales and then adjusted for losses for each rate class. This information was based on applying historical rate class load research to the 2017 projected forecast of system demand and energy. Form 42-7P presents the calculation of the proposed ECRC factors by rate class.

Q. What are the ECRC billing factors for the period of January through December 2017 which Tampa Electric is seeking approval?

A. The computation of the billing factors is shown in Exhibit No. PAR-3 Document No. 7, Form 42-7P. In summary, the January through December 2017 proposed ECRC billing factors are as follows:

Rate Class	**Factor by Voltage Level(¢/kWh)**
RS Secondary	0.389
GS, TS Secondary	0.388
GSD, SBF	
Secondary	0.386
Primary	0.382
Transmission	0.378

IS	
Secondary	0.379
Primary	0.375
Transmission	0.371
LS1	0.381
Average Factor	0.387

Q. When does Tampa Electric propose to begin applying these environmental cost recovery factors?

A. The environmental cost recovery factors will be effective concurrent with the first billing cycle for January 2017.

Q. What capital structure, components and cost rates did Tampa Electric rely on to calculate the revenue requirement rate of return for January 2017 through December 2017?

A. Tampa Electric used the weighted average cost of capital methodology approved by the Commission in Order No. PSC-12-0425-PAA-EU to calculate the revenue requirement rate of return found on Form 42-8P.

Q. Are the costs Tampa Electric is requesting for recovery through the ECRC for the period January 2017 through

December 2017 consistent with criteria established for ECRC recovery in Order No. PSC-94-0044-FOF-EI?

A. Yes. The costs for which ECRC treatment is requested meet the following criteria:

1. Such costs were prudently incurred after April 13, 1993;
2. The activities are legally required to comply with a governmentally imposed environmental regulation enacted, became effective or whose effect was triggered after the company's last test year upon which rates are based; and,
3. Such costs are not recovered through some other cost recovery mechanism or through base rates.

Q. Please summarize your testimony.

A. My testimony supports the approval of a final average environmental billing factor of 0.387 cents per kWh. This includes the projected capital and O&M revenue requirements of $81,235,918 associated with a total of 33 environmental projects and a net true-up over-recovery provision of $7,477,157. My testimony also explains that the projected environmental expenditures for 2017 are appropriate for recovery through the ECRC.

Q. Does this conclude your testimony?

A. Yes, it does.

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ENVIRONMENTAL COST RECOVERY COMMISSION FORMS

JANUARY 2017 THROUGH DECEMBER 2017

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Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Total Jurisdictional Amount to Be Recovered

Form 42 - 1P

For the Projected Period
January 2017 to December 2017

Line	Energy ($)	Demand ($)	Total ($)
1. Total Jurisdictional Revenue Requirements for the projected period			
a. Projected O&M Activities (Form 42-2P, Lines 7, 8 & 9)	$27,797,437	$1,003,367	$28,800,804
b. Projected Capital Projects (Form 42-3P, Lines 7, 8 & 9)	52,066,484	368,630	52,435,114
c. Total Jurisdictional Revenue Requirements for the projected period (Lines 1a + 1b)	79,863,921	1,371,997	81,235,918
2. True-up for Estimated Over/(Under) Recovery for the current period January 2016 to December 2016 (Form 42-2E, Line 5 + 6 + 10)	5,715,830	40,143	5,755,973
3. Final Over/(Under) Recovery True-up for the period January 2015 to December 2015 (Form 42-1A, Line 3)	1,716,383	4,801	1,721,184
4. Total Jurisdictional Amount to Be Recovered/(Refunded) in the projection period January 2017 to December 2017 (Line 1 - Line 2- Line 3)	72,431,708	1,327,053	73,758,761
5. Total Projected Jurisdictional Amount Adjusted for Taxes (Line 4 x Revenue Tax Multiplier)	$72,483,859	$1,328,008	$73,811,867

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Form 42 - 2P

O&M Activities
(in Dollars)

Line		Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total	Method of Classification Demand	Method of Classification Energy
1.	Description of O&M Activities															
a.	Big Bend Unit 3 Flue Gas Desulfurization Integration	$461,239	$461,239	$461,239	$461,239	$461,239	$461,239	$461,239	$461,239	$461,239	$461,239	$461,239	$466,115	$5,539,740		$5,539,740
b.	Big Bend Units 1 & 2 Flue Gas Conditioning	0	0	0	0	0	0	0	0	0	0	0	0	0		0
c.	SO_2 Emissions Allowances	754	753	759	747	752	754	737	744	744	744	767	736	8,990		8,990
d.	Big Bend Units 1 & 2 FGD	759,203	776,991	755,537	752,786	771,568	765,698	749,508	744,769	741,997	745,675	770,739	774,422	9,108,893		9,108,893
e.	Big Bend PM Minimization and Monitoring	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	61,283	611,283		611,283
f.	Big Bend NO_x Emissions Reduction	25,000	25,000	0	0	0	0	0	0	25,000	25,000	0	0	100,000		100,000
g.	NPDES Annual Surveillance Fees	34,500	0	0	0	0	0	0	0	0	0	0	0	34,500	$34,500	
h.	Gannon Thermal Discharge Study	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
i.	Polk NO_x Emissions Reduction	1,667	1,667	1,666	1,666	1,667	1,667	1,667	1,667	1,666	1,666	1,667	1,667	20,000		20,000
j.	Bayside SCR and Ammonia	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	204,000		204,000
k.	Big Bend Unit 4 SOFA	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	37,200		37,200
l.	Big Bend Unit 1 Pre-SCR	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	37,200		37,200
m.	Big Bend Unit 2 Pre-SCR	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	37,200		37,200
n.	Big Bend Unit 3 Pre-SCR	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	37,200		37,200
o.	Clean Water Act Section 316(b) Phase II Study	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	948,000	948,000	
p.	Arsenic Groundwater Standard Program	0	0	6,000	0	0	6,500	0	0	6,000	0	0	6,500	25,000	25,000	
q.	Big Bend 1 SCR	45,595	68,623	137,579	152,863	150,735	202,840	184,136	175,319	178,366	169,432	183,223	122,393	1,771,104		1,771,104
r.	Big Bend 2 SCR	88,121	134,594	162,048	148,142	258,686	242,668	183,430	182,600	167,426	154,808	184,692	169,572	2,076,788		2,076,788
s.	Big Bend 3 SCR	311,048	258,070	130,346	113,056	23,958	23,958	155,137	140,820	168,748	178,379	180,499	181,404	1,865,423		1,865,423
t.	Big Bend 4 SCR	129,569	77,629	58,943	74,855	105,537	125,450	72,213	96,177	80,377	92,297	46,502	127,135	1,086,684		1,086,684
u.	Mercury Air Toxics Standards	36,000	11,250	13,500	33,500	14,500	13,500	31,750	11,250	11,750	31,000	12,000	11,000	231,000		231,000
v.	Greenhouse Gas Reduction Program	90,000	0	0	0	0	0	0	0	0	0	0	0	90,000		90,000
w.	Big Bend Gypsum Storage Facility	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,200,000		1,200,000
x.	Coal Combustion Residuals (CCR) Rule	50,000	50,000	50,000	50,000	50,000	50,000	50,000	100,000	250,000	2,000,000	1,000,000	0	3,700,000		3,700,000
y.	Effluent Limitations Guidelines (ELG)	25,000	15,000	10,000	0	0	0	0	0	0	0	0	0	50,000		50,000
2.	Total of O&M Activities	2,316,096	2,139,216	2,046,017	2,047,253	2,097,042	2,152,674	2,148,217	2,172,985	2,351,711	4,118,640	3,099,728	2,130,626	28,820,206	$1,007,500	$27,812,706
3.	Recoverable Costs Allocated to Energy	2,202,596	2,060,216	1,961,017	1,968,253	2,018,042	2,067,174	2,069,217	2,093,985	2,266,711	4,039,640	3,020,728	2,045,126	27,812,706		
4.	Recoverable Costs Allocated to Demand	113,500	79,000	85,000	79,000	79,000	85,500	79,000	79,000	85,000	79,000	79,000	85,500	1,007,500		
5.	Retail Energy Jurisdictional Factor	0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217			
6.	Retail Demand Jurisdictional Factor	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992			
7.	Jurisdictional Energy Recoverable Costs (A)	2,202,178	2,060,089	1,960,978	1,967,910	2,016,745	2,064,279	2,066,086	2,090,739	2,264,413	4,038,326	3,020,728	2,044,966	27,797,437		
8.	Jurisdictional Demand Recoverable Costs (B)	113,035	78,676	84,651	78,676	78,676	85,149	78,676	78,676	84,651	78,676	78,676	85,149	1,003,367		
9.	Total Jurisdictional Recoverable Costs for O&M Activities (Lines 7 + 8)	$2,315,213	$2,138,765	$2,045,629	$2,046,586	$2,095,421	$2,149,428	$2,144,762	$2,169,415	$2,349,064	$4,117,002	$3,099,404	$2,130,115	$28,800,804		

Notes:
(A) Line 3 x Line 5
(B) Line 4 x Line 6

DOCKET NO. 160007-EI
ECRC 2017 PROJECTION, FORM 42-2P
EXHIBIT NO. PAR-3 , DOCUMENT NO. 2

Form 42-3P

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Capital Investment Projects-Recoverable Costs
(in Dollars)

Line		Description (A)		Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total	Method of Classification Demand	Method of Classification Energy
1.	a.	Big Bend Unit 3 Flue Gas Desulfurization Integration	1	$93,182	$92,967	$92,753	$92,538	$92,325	$92,110	$91,896	$91,681	$91,467	$91,252	$91,038	$90,823	$1,104,032		$1,104,032
	b.	Big Bend Units 1 and 2 Flue Gas Conditioning	2	23,755	23,635	23,515	23,395	23,275	23,154	23,035	22,914	22,795	22,674	22,555	22,435	277,137		277,137
	c.	Big Bend Unit 4 Continuous Emissions Monitors	3	4,917	4,900	4,882	4,866	4,848	4,831	4,814	4,797	4,779	4,762	4,745	4,727	57,868		57,868
	d.	Big Bend Fuel Oil Tank # 1 Upgrade	4	3,194	3,182	3,172	3,162	3,152	3,141	3,130	3,120	3,109	3,099	3,088	3,078	37,627	$37,627	
	e.	Big Bend Fuel Oil Tank # 2 Upgrade	5	5,252	5,235	5,217	5,200	5,183	5,166	5,149	5,131	5,114	5,097	5,079	5,063	61,886	61,886	
	f.	Big Bend Unit 1 Classifier Replacement	6	7,695	7,663	7,631	7,598	7,565	7,533	7,500	7,467	7,435	7,402	7,369	7,337	90,195		90,195
	g.	Big Bend Unit 2 Classifier Replacement	7	5,570	5,547	5,525	5,503	5,480	5,457	5,434	5,413	5,390	5,367	5,344	5,321	65,351		65,351
	h.	Big Bend Section 114 Mercury Testing Platform	8	829	827	824	823	820	818	815	814	811	809	807	805	9,802		9,802
	i.	Big Bend Units 1 & 2 FGD	9	582,958	581,011	579,064	577,116	575,170	573,222	571,276	569,329	567,381	565,435	563,487	561,540	6,866,989		6,866,989
	j.	Big Bend FGD Optimization and Utilization	10	145,418	145,082	144,745	144,409	144,072	143,736	143,399	143,062	142,725	142,389	142,052	141,716	1,722,805		1,722,805
	k.	Big Bend NO_x Emissions Reduction	11	48,696	48,621	48,545	48,469	48,394	48,318	48,242	48,167	48,091	48,015	47,939	47,863	579,360		579,360
	l.	Big Bend PM Minimization and Monitoring	12	173,042	172,595	172,147	171,699	171,252	170,804	170,356	169,908	169,461	169,013	168,566	168,118	2,046,961		2,046,961
	m.	Polk NO_x Emissions Reduction	13	10,937	10,904	10,871	10,838	10,805	10,772	10,739	10,706	10,673	10,640	10,607	10,575	129,067		129,067
	n.	Big Bend Unit 4 SOFA	14	19,206	19,159	19,111	19,064	19,016	18,969	18,921	18,873	18,826	18,778	18,731	18,683	227,337		227,337
	o.	Big Bend Unit 1 Pre-SCR	15	13,280	13,238	13,197	13,157	13,116	13,075	13,034	12,993	12,952	12,911	12,871	12,830	156,654		156,654
	p.	Big Bend Unit 2 Pre-SCR	16	12,637	12,600	12,564	12,528	12,491	12,455	12,419	12,383	12,346	12,310	12,274	12,238	149,245		149,245
	q.	Big Bend Unit 3 Pre-SCR	17	22,569	22,509	22,451	22,391	22,331	22,273	22,213	22,155	22,095	22,037	21,977	21,917	266,918		266,918
	r.	Big Bend Unit 1 SCR	18	758,420	756,122	753,823	751,524	749,225	746,927	744,628	742,330	740,031	737,733	735,434	733,135	8,949,332		8,949,332
	s.	Big Bend Unit 2 SCR	19	812,671	810,382	808,094	805,805	803,516	801,228	798,939	796,650	794,362	792,073	789,784	787,495	9,600,999		9,600,999
	t.	Big Bend Unit 3 SCR	20	661,572	659,876	659,378	659,020	658,369	657,485	659,512	658,375	656,508	654,639	652,770	650,901	7,888,405		7,888,405
	u.	Big Bend Unit 4 SCR	21	521,935	520,540	519,144	517,749	516,353	514,957	513,562	512,166	510,771	509,375	507,979	506,584	6,171,115		6,171,115
	v.	Big Bend FGD System Reliability	22	202,432	202,051	201,669	201,287	200,905	200,524	200,143	199,761	199,380	198,998	198,617	198,235	2,404,002		2,404,002
	w.	Mercury Air Toxics Standards	23	78,835	78,672	78,510	78,348	78,483	78,617	78,456	78,294	78,131	78,266	78,401	78,239	941,252		941,252
	x.	SO_2 Emissions Allowances (B)	24	(259)	(258)	(258)	(258)	(258)	(258)	(257)	(256)	(256)	(256)	(255)	(255)	(3,084)		(3,084)
	y.	Big Bend Gypsum Storage Facility	25	201,701	201,316	200,931	200,545	200,159	199,773	199,387	199,002	198,616	198,230	197,844	197,460	2,394,964		2,394,964
	z.	Coal Combustion Residuals (CCR) Rule	26	2,812	4,080	5,627	7,668	10,449	15,402	20,092	25,893	33,547	41,847	49,151	54,065	270,633	270,633	
2.		Total Investment Projects - Recoverable Costs		4,413,256	4,402,456	4,393,132	4,384,444	4,376,496	4,370,489	4,366,834	4,361,128	4,356,540	4,352,895	4,348,254	4,340,928	52,466,852	$370,146	$52,096,706
3.		Recoverable Costs Allocated to Energy		4,401,998	4,389,959	4,379,116	4,368,414	4,357,712	4,346,780	4,338,463	4,326,984	4,314,770	4,302,852	4,290,936	4,278,722	52,096,706		52,096,706
4.		Recoverable Costs Allocated to Demand		11,258	12,497	14,016	16,030	18,784	23,709	28,371	34,144	41,770	50,043	57,318	62,206	370,146	370,146	
5.		Retail Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217			
6.		Retail Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992			
7.		Jurisdictional Energy Recoverable Costs (C)		4,401,163	4,389,689	4,379,028	4,367,653	4,354,911	4,340,693	4,331,899	4,320,276	4,310,397	4,301,452	4,290,936	4,278,387	52,066,484		
8.		Jurisdictional Demand Recoverable Costs (D)		11,212	12,446	13,959	15,964	18,707	23,612	28,255	34,004	41,599	49,838	57,083	61,951	368,630		
9.		Total Jurisdictional Recoverable Costs for Investment Projects (Lines 7 + 8)		$4,412,375	$4,402,135	$4,392,987	$4,383,617	$4,373,618	$4,364,305	$4,360,154	$4,354,280	$4,351,996	$4,351,290	$4,348,019	$4,340,338	$52,435,114		

Notes:
(A) Each project's Total System Recoverable Expenses on Form 42-8P, Line 9
(B) Project's Total Return Component on Form 42-8P, Line 6
(C) Line 3 x Line 5
(D) Line 4 x Line 6

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Unit 3 Flue Gas Desulfurization Integration
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other - AFUDC (excl from CWIP)		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$13,763,081	$13,763,081	$13,763,081	$13,763,081	$13,763,081	$13,763,081	$13,763,081	$13,763,081	$13,763,081	$13,763,081	$13,763,081	$13,763,081	$13,763,081	
3.	Less: Accumulated Depreciation	(5,094,244)	(5,123,081)	(5,151,918)	(5,180,755)	(5,209,592)	(5,238,429)	(5,267,266)	(5,296,103)	(5,324,940)	(5,353,777)	(5,382,614)	(5,411,451)	(5,440,288)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	-	
5.	Net Investment (Lines 2 + 3 + 4)	$8,668,837	8,640,000	8,611,163	8,582,326	8,553,489	8,524,652	8,495,815	8,466,978	8,438,141	8,409,304	8,380,467	8,351,630	8,322,793	
6.	Average Net Investment		8,654,419	8,625,582	8,596,745	8,567,908	8,539,071	8,510,234	8,481,397	8,452,560	8,423,723	8,394,886	8,366,049	8,337,212	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$50,681	$50,512	$50,343	$50,174	$50,006	$49,837	$49,668	$49,499	$49,330	$49,161	$48,992	$48,823	$597,026
	b. Debt Component Grossed Up For Taxes (C)		13,664	13,618	13,573	13,527	13,482	13,436	13,391	13,345	13,300	13,254	13,209	13,163	160,962
8.	Investment Expenses														
	a. Depreciation (D)		$28,837	$28,837	$28,837	$28,837	$28,837	$28,837	$28,837	$28,837	$28,837	$28,837	$28,837	$28,837	$346,044
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$93,182	$92,967	$92,753	$92,538	$92,325	$92,110	$91,896	$91,681	$91,467	$91,252	$91,038	$90,823	$1,104,032
	a. Recoverable Costs Allocated to Energy		93,182	92,967	92,753	92,538	92,325	92,110	91,896	91,681	91,467	91,252	91,038	90,823	1,104,032
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		93,164	92,961	92,751	92,522	92,266	91,981	91,757	91,539	91,374	91,222	91,038	90,816	1,103,391
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$93,164	$92,961	$92,751	$92,522	$92,266	$91,981	$91,757	$91,539	$91,374	$91,222	$91,038	$90,816	$1,103,391

Notes:
(A) Applicable depreciable base for Big Bend; accounts 312.45 ($13,435,775) and 315.45 ($327,307)
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rates are 2.5% and 3.1%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

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DOCKET NO. 160007-EI
ECRC 2017 PROJECTION, FORM 42-4P
EXHIBIT NO. PAR-3, DOCUMENT NO. 4, PAGE 1 OF 26

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Units 1 and 2 Flue Gas Conditioning
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$5,017,734	$5,017,734	$5,017,734	$5,017,734	$5,017,734	$5,017,734	$5,017,734	$5,017,734	$5,017,734	$5,017,734	$5,017,734	$5,017,734	$5,017,734	
3.	Less: Accumulated Depreciation	(3,985,586)	(4,001,727)	(4,017,868)	(4,034,009)	(4,050,150)	(4,066,291)	(4,082,432)	(4,098,573)	(4,114,714)	(4,130,855)	(4,146,996)	(4,163,137)	(4,179,278)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$1,032,148	1,016,007	999,866	983,725	967,584	951,443	935,302	919,161	903,020	886,879	870,738	854,597	838,456	
6.	Average Net Investment		1,024,078	1,007,937	991,796	975,655	959,514	943,373	927,232	911,091	894,950	878,809	862,668	846,527	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$5,997	$5,903	$5,808	$5,714	$5,619	$5,524	$5,430	$5,335	$5,241	$5,146	$5,052	$4,957	$65,726
	b. Debt Component Grossed Up For Taxes (C)		1,617	1,591	1,566	1,540	1,515	1,489	1,464	1,438	1,413	1,387	1,362	1,337	17,719
8.	Investment Expenses														
	a. Depreciation (D)		$16,141	$16,141	$16,141	$16,141	$16,141	$16,141	$16,141	$16,141	$16,141	$16,141	$16,141	$16,141	$193,692
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$23,755	$23,635	$23,515	$23,395	$23,275	$23,154	$23,035	$22,914	$22,795	$22,674	$22,555	$22,435	$277,137
	a. Recoverable Costs Allocated to Energy		23,755	23,635	23,515	23,395	23,275	23,154	23,035	22,914	22,795	22,674	22,555	22,435	277,137
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		23,750	23,634	23,515	23,391	23,260	23,122	23,000	22,878	22,772	22,667	22,555	22,433	276,977
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$23,750	$23,634	$23,515	$23,391	$23,260	$23,122	$23,000	$22,878	$22,772	$22,667	$22,555	$22,433	$276,977

Notes:
(A) Applicable depreciable base for Big Bend; accounts 312.41 ($2,676,217) and 312.42 ($2,341,517)
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rates are 4.0% and 3.7%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Unit 4 Continuous Emissions Monitors
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$866,211	$866,211	$866,211	$866,211	$866,211	$866,211	$866,211	$866,211	$866,211	$866,211	$866,211	$866,211	$866,211	
3.	Less: Accumulated Depreciation	(514,445)	(516,755)	(519,065)	(521,375)	(523,685)	(525,995)	(528,305)	(530,615)	(532,925)	(535,235)	(537,545)	(539,855)	(542,165)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$351,766	349,456	347,146	344,836	342,526	340,216	337,906	335,596	333,286	330,976	328,666	326,356	324,046	
6.	Average Net Investment		350,611	348,301	345,991	343,681	341,371	339,061	336,751	334,441	332,131	329,821	327,511	325,201	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$2,053	$2,040	$2,026	$2,013	$1,999	$1,986	$1,972	$1,959	$1,945	$1,931	$1,918	$1,904	$23,746
	b. Debt Component Grossed Up For Taxes (C)		554	550	546	543	539	535	532	528	524	521	517	513	6,402
8.	Investment Expenses														
	a. Depreciation (D)		$2,310	$2,310	$2,310	$2,310	$2,310	$2,310	$2,310	$2,310	$2,310	$2,310	$2,310	$2,310	$27,720
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$4,917	$4,900	$4,882	$4,866	$4,848	$4,831	$4,814	$4,797	$4,779	$4,762	$4,745	$4,727	$57,868
	a. Recoverable Costs Allocated to Energy		4,917	4,900	4,882	4,866	4,848	4,831	4,814	4,797	4,779	4,762	4,745	4,727	57,868
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		4,916	4,900	4,882	4,865	4,845	4,824	4,807	4,790	4,774	4,760	4,745	4,727	57,835
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$4,916	$4,900	$4,882	$4,865	$4,845	$4,824	$4,807	$4,790	$4,774	$4,760	$4,745	$4,727	$57,835

Notes:
(A) Applicable depreciable base for Big Bend; account 315.44
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 3.2%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

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DOCKET NO. 160007-EI
ECRC 2017 PROJECTION, FORM 42-4P
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Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Fuel Oil Tank # 1 Upgrade
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$497,578	$497,578	$497,578	$497,578	$497,578	$497,578	$497,578	$497,578	$497,578	$497,578	$497,578	$497,578	$497,578	
3.	Less: Accumulated Depreciation	(257,032)	(258,442)	(259,852)	(261,262)	(262,672)	(264,082)	(265,492)	(266,902)	(268,312)	(269,722)	(271,132)	(272,542)	(273,952)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$240,546	239,136	237,726	236,316	234,906	233,496	232,086	230,676	229,266	227,856	226,446	225,036	223,626	
6.	Average Net Investment		239,841	238,431	237,021	235,611	234,201	232,791	231,381	229,971	228,561	227,151	225,741	224,331	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$1,405	$1,396	$1,388	$1,380	$1,372	$1,363	$1,355	$1,347	$1,338	$1,330	$1,322	$1,314	$16,310
	b. Debt Component Grossed Up For Taxes (C)		379	376	374	372	370	368	365	363	361	359	356	354	4,397
8.	Investment Expenses														
	a. Depreciation (D)		$1,410	$1,410	$1,410	$1,410	$1,410	$1,410	$1,410	$1,410	$1,410	$1,410	$1,410	$1,410	$16,920
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$3,194	$3,182	$3,172	$3,162	$3,152	$3,141	$3,130	$3,120	$3,109	$3,099	$3,088	$3,078	$37,627
	a. Recoverable Costs Allocated to Energy		0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Recoverable Costs Allocated to Demand		3,194	3,182	3,172	3,162	3,152	3,141	3,130	3,120	3,109	3,099	3,088	3,078	37,627
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		0	0	0	0	0	0	0	0	0	0	0	0	0
13.	Retail Demand-Related Recoverable Costs (F)		3,181	3,169	3,159	3,149	3,139	3,128	3,117	3,107	3,096	3,086	3,075	3,065	37,471
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$3,181	$3,169	$3,159	$3,149	$3,139	$3,128	$3,117	$3,107	$3,096	$3,086	$3,075	$3,065	$37,471

Notes:
(A) Applicable depreciable base for Big Bend; account 312.40
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 3.4%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Fuel Oil Tank # 2 Upgrade
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$818,401	$818,401	$818,401	$818,401	$818,401	$818,401	$818,401	$818,401	$818,401	$818,401	$818,401	$818,401	$818,401	
3.	Less: Accumulated Depreciation	(422,764)	(425,083)	(427,402)	(429,721)	(432,040)	(434,359)	(436,678)	(438,997)	(441,316)	(443,635)	(445,954)	(448,273)	(450,592)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$395,637	393,318	390,999	388,680	386,361	384,042	381,723	379,404	377,085	374,766	372,447	370,128	367,809	
6.	Average Net Investment		394,478	392,159	389,840	387,521	385,202	382,883	380,564	378,245	375,926	373,607	371,288	368,969	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$2,310	$2,297	$2,283	$2,269	$2,256	$2,242	$2,229	$2,215	$2,201	$2,188	$2,174	$2,161	$26,825
	b. Debt Component Grossed Up For Taxes (C)		623	619	615	612	608	605	601	597	594	590	586	583	7,233
8.	Investment Expenses														
	a. Depreciation (D)		$2,319	$2,319	$2,319	$2,319	$2,319	$2,319	$2,319	$2,319	$2,319	$2,319	$2,319	$2,319	$27,828
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$5,252	$5,235	$5,217	$5,200	$5,183	$5,166	$5,149	$5,131	$5,114	$5,097	$5,079	$5,063	$61,886
	a. Recoverable Costs Allocated to Energy		0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Recoverable Costs Allocated to Demand		5,252	5,235	5,217	5,200	5,183	5,166	5,149	5,131	5,114	5,097	5,079	5,063	61,886
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		0	0	0	0	0	0	0	0	0	0	0	0	0
13.	Retail Demand-Related Recoverable Costs (F)		5,230	5,214	5,196	5,179	5,162	5,145	5,128	5,110	5,093	5,076	5,058	5,042	61,633
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$5,230	$5,214	$5,196	$5,179	$5,162	$5,145	$5,128	$5,110	$5,093	$5,076	$5,058	$5,042	$61,633

Notes:

(A) Applicable depreciable base for Big Bend; account 312.40
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 3.4%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Unit 1 Classifier Replacement
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$1,316,257	$1,316,257	$1,316,257	$1,316,257	$1,316,257	$1,316,257	$1,316,257	$1,316,257	$1,316,257	$1,316,257	$1,316,257	$1,316,257	$1,316,257	
3.	Less: Accumulated Depreciation	(869,192)	(873,580)	(877,968)	(882,356)	(886,744)	(891,132)	(895,520)	(899,908)	(904,296)	(908,684)	(913,072)	(917,460)	(921,848)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$447,065	442,677	438,289	433,901	429,513	425,125	420,737	416,349	411,961	407,573	403,185	398,797	394,409	
6.	Average Net Investment		444,871	440,483	436,095	431,707	427,319	422,931	418,543	414,155	409,767	405,379	400,991	396,603	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$2,605	$2,580	$2,554	$2,528	$2,502	$2,477	$2,451	$2,425	$2,400	$2,374	$2,348	$2,323	$29,567
	b. Debt Component Grossed Up For Taxes (C)		702	695	689	682	675	668	661	654	647	640	633	626	7,972
8.	Investment Expenses														
	a. Depreciation (D)		$4,388	$4,388	$4,388	$4,388	$4,388	$4,388	$4,388	$4,388	$4,388	$4,388	$4,388	$4,388	$52,656
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$7,695	$7,663	$7,631	$7,598	$7,565	$7,533	$7,500	$7,467	$7,435	$7,402	$7,369	$7,337	$90,195
	a. Recoverable Costs Allocated to Energy		7,695	7,663	7,631	7,598	7,565	7,533	7,500	7,467	7,435	7,402	7,369	7,337	90,195
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		7,694	7,663	7,631	7,597	7,560	7,522	7,489	7,455	7,427	7,400	7,369	7,336	90,143
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$7,694	$7,663	$7,631	$7,597	$7,560	$7,522	$7,489	$7,455	$7,427	$7,400	$7,369	$7,336	$90,143

Notes:
(A) Applicable depreciable base for Big Bend; account 312.41
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 4.0%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Unit 2 Classifier Replacement
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$984,794	$984,794	$984,794	$984,794	$984,794	$984,794	$984,794	$984,794	$984,794	$984,794	$984,794	$984,794	$984,794	
3.	Less: Accumulated Depreciation	(642,438)	(645,474)	(648,510)	(651,546)	(654,582)	(657,618)	(660,654)	(663,690)	(666,726)	(669,762)	(672,798)	(675,834)	(678,870)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$342,356	339,320	336,284	333,248	330,212	327,176	324,140	321,104	318,068	315,032	311,996	308,960	305,924	
6.	Average Net Investment		340,838	337,802	334,766	331,730	328,694	325,658	322,622	319,586	316,550	313,514	310,478	307,442	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$1,996	$1,978	$1,960	$1,943	$1,925	$1,907	$1,889	$1,872	$1,854	$1,836	$1,818	$1,800	$22,778
	b. Debt Component Grossed Up For Taxes (C)		538	533	529	524	519	514	509	505	500	495	490	485	6,141
8.	Investment Expenses														
	a. Depreciation (D)		$3,036	$3,036	$3,036	$3,036	$3,036	$3,036	$3,036	$3,036	$3,036	$3,036	$3,036	$3,036	$36,432
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$5,570	$5,547	$5,525	$5,503	$5,480	$5,457	$5,434	$5,413	$5,390	$5,367	$5,344	$5,321	$65,351
	a. Recoverable Costs Allocated to Energy		5,570	5,547	5,525	5,503	5,480	5,457	5,434	5,413	5,390	5,367	5,344	5,321	65,351
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		5,569	5,547	5,525	5,502	5,476	5,449	5,426	5,405	5,385	5,365	5,344	5,321	65,314
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
15	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$5,569	$5,547	$5,525	$5,502	$5,476	$5,449	$5,426	$5,405	$5,385	$5,365	$5,344	$5,321	$65,314

Notes:
(A) Applicable depreciable base for Big Bend; account 312.42
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 3.7%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Section 114 Mercury Testing Platform
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$120,737	$120,737	$120,737	$120,737	$120,737	$120,737	$120,737	$120,737	$120,737	$120,737	$120,737	$120,737	$120,737	
3.	Less: Accumulated Depreciation	(48,403)	(48,695)	(48,987)	(49,279)	(49,571)	(49,863)	(50,155)	(50,447)	(50,739)	(51,031)	(51,323)	(51,615)	(51,907)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$72,334	72,042	71,750	71,458	71,166	70,874	70,582	70,290	69,998	69,706	69,414	69,122	68,830	
6.	Average Net Investment		72,188	71,896	71,604	71,312	71,020	70,728	70,436	70,144	69,852	69,560	69,268	68,976	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$423	$421	$419	$418	$416	$414	$412	$411	$409	$407	$406	$404	$4,960
	b. Debt Component Grossed Up For Taxes (C)		114	114	113	113	112	112	111	111	110	110	109	109	1,338
8.	Investment Expenses														
	a. Depreciation (D)		$292	$292	$292	$292	$292	$292	$292	$292	$292	$292	$292	$292	$3,504
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$829	$827	$824	$823	$820	$818	$815	$814	$811	$809	$807	$805	$9,802
	a. Recoverable Costs Allocated to Energy		829	827	824	823	820	818	815	814	811	809	807	805	9,802
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		829	827	824	823	819	817	814	813	810	809	807	805	9,797
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$829	$827	$824	$823	$819	$817	$814	$813	$810	$809	$807	$805	$9,797

Notes:
(A) Applicable depreciable base for Big Bend; account 311.40
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 2.9%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Units 1 and 2 FGD
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other - AFUDC (excl from CWIP)		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$95,245,745	$95,245,745	$95,245,745	$95,245,745	$95,245,745	$95,245,745	$95,245,745	$95,245,745	$95,245,745	$95,245,745	$95,245,745	$95,245,745	$95,245,745	
3.	Less: Accumulated Depreciation	(51,931,081)	(52,192,972)	(52,454,863)	(52,716,754)	(52,978,645)	(53,240,536)	(53,502,427)	(53,764,318)	(54,026,209)	(54,288,100)	(54,549,991)	(54,811,882)	(55,073,773)	
4.	CWIP - Non-Interest Bearing	0	0	0	-	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$43,314,664	43,052,773	42,790,882	42,528,991	42,267,100	42,005,209	41,743,318	41,481,427	41,219,536	40,957,645	40,695,754	40,433,863	40,171,972	
6.	Average Net Investment		43,183,718	42,921,827	42,659,936	42,398,045	42,136,154	41,874,263	41,612,372	41,350,481	41,088,590	40,826,699	40,564,808	40,302,917	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$252,887	$251,354	$249,820	$248,286	$246,753	$245,219	$243,686	$242,152	$240,618	$239,085	$237,551	$236,017	$2,933,428
	b. Debt Component Grossed Up For Taxes (C)		68,180	67,766	67,353	66,939	66,526	66,112	65,699	65,286	64,872	64,459	64,045	63,632	790,869
8.	Investment Expenses														
	a. Depreciation (D)		$261,891	$261,891	$261,891	$261,891	$261,891	$261,891	$261,891	$261,891	$261,891	$261,891	$261,891	$261,891	$3,142,692
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$582,958	$581,011	$579,064	$577,116	$575,170	$573,222	$571,276	$569,329	$567,381	$565,435	$563,487	$561,540	$6,866,989
	a. Recoverable Costs Allocated to Energy		582,958	581,011	579,064	577,116	575,170	573,222	571,276	569,329	567,381	565,435	563,487	561,540	6,866,989
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		582,847	580,975	579,052	577,016	574,800	572,419	570,412	568,446	566,806	565,251	563,487	561,496	6,863,007
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$582,847	$580,975	$579,052	$577,016	$574,800	$572,419	$570,412	$568,446	$566,806	$565,251	$563,487	$561,496	$6,863,007

Notes:
(A) Applicable depreciable base for Big Bend; accounts 312.45 ($105,398), 312.46 ($94,929,061) & 315.46 ($211,285)
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rates are 2.5%, 3.3% and 3.5%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend FGD Optimization and Utilization
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$21,739,737	$21,739,737	$21,739,737	$21,739,737	$21,739,737	$21,739,737	$21,739,737	$21,739,737	$21,739,737	$21,739,737	$21,739,737	$21,739,737	$21,739,737	
3.	Less: Accumulated Depreciation	(8,247,637)	(8,292,911)	(8,338,185)	(8,383,459)	(8,428,733)	(8,474,007)	(8,519,281)	(8,564,555)	(8,609,829)	(8,655,103)	(8,700,377)	(8,745,651)	(8,790,925)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$13,492,100	13,446,826	13,401,552	13,356,278	13,311,004	13,265,730	13,220,456	13,175,182	13,129,908	13,084,634	13,039,360	12,994,086	12,948,812	
6.	Average Net Investment		13,469,463	13,424,189	13,378,915	13,333,641	13,288,367	13,243,093	13,197,819	13,152,545	13,107,271	13,061,997	13,016,723	12,971,449	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$78,878	$78,613	$78,348	$78,083	$77,818	$77,553	$77,288	$77,022	$76,757	$76,492	$76,227	$75,962	$929,041
	b. Debt Component Grossed Up For Taxes (C)		21,266	21,195	21,123	21,052	20,980	20,909	20,837	20,766	20,694	20,623	20,551	20,480	250,476
8.	Investment Expenses														
	a. Depreciation (D)		$45,274	$45,274	$45,274	$45,274	$45,274	$45,274	$45,274	$45,274	$45,274	$45,274	$45,274	$45,274	$543,288
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$145,418	$145,082	$144,745	$144,409	$144,072	$143,736	$143,399	$143,062	$142,725	$142,389	$142,052	$141,716	$1,722,805
	a. Recoverable Costs Allocated to Energy		145,418	145,082	144,745	144,409	144,072	143,736	143,399	143,062	142,725	142,389	142,052	141,716	1,722,805
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		145,390	145,073	144,742	144,384	143,979	143,535	143,182	142,840	142,580	142,343	142,052	141,705	1,721,805
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$145,390	$145,073	$144,742	$144,384	$143,979	$143,535	$143,182	$142,840	$142,580	$142,343	$142,052	$141,705	$1,721,805

Notes:
(A) Applicable depreciable base for Big Bend; accounts 312.45 ($21,699,919)and 311.45 ($39,818)
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rates are 2.5% and 2.0%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend NO_x Emissions Reduction
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$3,190,852	$3,190,852	$3,190,852	$3,190,852	$3,190,852	$3,190,852	$3,190,852	$3,190,852	$3,190,852	$3,190,852	$3,190,852	$3,190,852	$3,190,852	
3.	Less: Accumulated Depreciation	1,994,187	1,984,003	1,973,819	1,963,635	1,953,451	1,943,267	1,933,083	1,922,899	1,912,715	1,902,531	1,892,347	1,882,163	1,871,979	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$5,185,039	5,174,855	5,164,671	5,154,487	5,144,303	5,134,119	5,123,935	5,113,751	5,103,567	5,093,383	5,083,199	5,073,015	5,062,831	
6.	Average Net Investment		5,179,947	5,169,763	5,159,579	5,149,395	5,139,211	5,129,027	5,118,843	5,108,659	5,098,475	5,088,291	5,078,107	5,067,923	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$30,334	$30,275	$30,215	$30,155	$30,096	$30,036	$29,976	$29,917	$29,857	$29,797	$29,738	$29,678	$360,074
	b. Debt Component Grossed Up For Taxes (C)		8,178	8,162	8,146	8,130	8,114	8,098	8,082	8,066	8,050	8,034	8,017	8,001	97,078
8.	Investment Expenses														
	a. Depreciation (D)		$10,184	$10,184	$10,184	$10,184	$10,184	$10,184	$10,184	$10,184	$10,184	$10,184	$10,184	$10,184	$122,208
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$48,696	$48,621	$48,545	$48,469	$48,394	$48,318	$48,242	$48,167	$48,091	$48,015	$47,939	$47,863	$579,360
	a. Recoverable Costs Allocated to Energy		48,696	48,621	48,545	48,469	48,394	48,318	48,242	48,167	48,091	48,015	47,939	47,863	579,360
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		48,687	48,618	48,544	48,461	48,363	48,250	48,169	48,092	48,042	47,999	47,939	47,859	579,023
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$48,687	$48,618	$48,544	$48,461	$48,363	$48,250	$48,169	$48,092	$48,042	$47,999	$47,939	$47,859	$579,023

Notes:
(A) Applicable depreciable base for Big Bend; accounts 312.41 ($1,675,171), 312.42 ($1,075,718), and 312.43 ($439,963).
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rates are 4.0%, 3.7%, and 3.5%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

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Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: PM Minimization and Monitoring
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$19,557,036	$19,557,036	$19,557,036	$19,557,036	$19,557,036	$19,557,036	$19,557,036	$19,557,036	$19,557,036	$19,557,036	$19,557,036	$19,557,036	$19,557,036	
3.	Less: Accumulated Depreciation	(4,350,049)	(4,410,252)	(4,470,455)	(4,530,658)	(4,590,861)	(4,651,064)	(4,711,267)	(4,771,470)	(4,831,673)	(4,891,876)	(4,952,079)	(5,012,282)	(5,072,485)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$15,206,987	15,146,784	15,086,581	15,026,378	14,966,175	14,905,972	14,845,769	14,785,566	14,725,363	14,665,160	14,604,957	14,544,754	14,484,551	
6.	Average Net Investment		15,176,886	15,116,683	15,056,480	14,996,277	14,936,074	14,875,871	14,815,668	14,755,465	14,695,262	14,635,059	14,574,856	14,514,653	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$88,877	$88,525	$88,172	$87,819	$87,467	$87,114	$86,762	$86,409	$86,057	$85,704	$85,352	$84,999	$1,043,257
	b. Debt Component Grossed Up For Taxes (C)		23,962	23,867	23,772	23,677	23,582	23,487	23,391	23,296	23,201	23,106	23,011	22,916	281,268
8.	Investment Expenses														
	a. Depreciation (D)		$60,203	$60,203	$60,203	$60,203	$60,203	$60,203	$60,203	$60,203	$60,203	$60,203	$60,203	$60,203	$722,436
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$173,042	$172,595	$172,147	$171,699	$171,252	$170,804	$170,356	$169,908	$169,461	$169,013	$168,566	$168,118	$2,046,961
	a. Recoverable Costs Allocated to Energy		173,042	172,595	172,147	171,699	171,252	170,804	170,356	169,908	169,461	169,013	168,566	168,118	2,046,961
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		173,009	172,584	172,144	171,669	171,142	170,565	170,098	169,645	169,289	168,958	168,566	168,105	2,045,774
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$173,009	$172,584	$172,144	$171,669	$171,142	$170,565	$170,098	$169,645	$169,289	$168,958	$168,566	$168,105	$2,045,774

Notes:
(A) Applicable depreciable base for Big Bend; accounts 312.41 ($5,630,752), 312.42 ($5,153,072), 312.43 ($7,875,560), 315.41 ($17,504), 315.44 ($351,594), and 315.43 ($528,554)
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rates are 4.0%, 3.7%, 3.5%, 3.5%, 3.2%, and 3.6%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Polk NO_x Emissions Reduction
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$1,561,473	$1,561,473	$1,561,473	$1,561,473	$1,561,473	$1,561,473	$1,561,473	$1,561,473	$1,561,473	$1,561,473	$1,561,473	$1,561,473	$1,561,473	
3.	Less: Accumulated Depreciation	(683,322)	(687,746)	(692,170)	(696,594)	(701,018)	(705,442)	(709,866)	(714,290)	(718,714)	(723,138)	(727,562)	(731,986)	(736,410)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$878,151	873,727	869,303	864,879	860,455	856,031	851,607	847,183	842,759	838,335	833,911	829,487	825,063	
6.	Average Net Investment		875,939	871,515	867,091	862,667	858,243	853,819	849,395	844,971	840,547	836,123	831,699	827,275	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$5,130	$5,104	$5,078	$5,052	$5,026	$5,000	$4,974	$4,948	$4,922	$4,896	$4,870	$4,845	$59,845
	b. Debt Component Grossed Up For Taxes (C)		1,383	1,376	1,369	1,362	1,355	1,348	1,341	1,334	1,327	1,320	1,313	1,306	16,134
8.	Investment Expenses														
	a. Depreciation (D)		$4,424	$4,424	$4,424	$4,424	$4,424	$4,424	$4,424	$4,424	$4,424	$4,424	$4,424	$4,424	$53,088
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$10,937	$10,904	$10,871	$10,838	$10,805	$10,772	$10,739	$10,706	$10,673	$10,640	$10,607	$10,575	$129,067
	a. Recoverable Costs Allocated to Energy		10,937	10,904	10,871	10,838	10,805	10,772	10,739	10,706	10,673	10,640	10,607	10,575	129,067
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		10,935	10,903	10,871	10,836	10,798	10,757	10,723	10,689	10,662	10,637	10,607	10,574	128,992
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$10,935	$10,903	$10,871	$10,836	$10,798	$10,757	$10,723	$10,689	$10,662	$10,637	$10,607	$10,574	$128,992

Notes:
(A) Applicable depreciable base for Polk; account 342.81
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 3.4%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Unit 4 SOFA
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$2,558,730	$2,558,730	$2,558,730	$2,558,730	$2,558,730	$2,558,730	$2,558,730	$2,558,730	$2,558,730	$2,558,730	$2,558,730	$2,558,730	$2,558,730	
3.	Less: Accumulated Depreciation	(832,670)	(839,067)	(845,464)	(851,861)	(858,258)	(864,655)	(871,052)	(877,449)	(883,846)	(890,243)	(896,640)	(903,037)	(909,434)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$1,726,060	1,719,663	1,713,266	1,706,869	1,700,472	1,694,075	1,687,678	1,681,281	1,674,884	1,668,487	1,662,090	1,655,693	1,649,296	
6.	Average Net Investment		1,722,862	1,716,465	1,710,068	1,703,671	1,697,274	1,690,877	1,684,480	1,678,083	1,671,686	1,665,289	1,658,892	1,652,495	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$10,089	$10,052	$10,014	$9,977	$9,939	$9,902	$9,864	$9,827	$9,790	$9,752	$9,715	$9,677	$118,598
	b. Debt Component Grossed Up For Taxes (C)		2,720	2,710	2,700	2,690	2,680	2,670	2,660	2,649	2,639	2,629	2,619	2,609	31,975
8.	Investment Expenses														
	a. Depreciation (D)		$6,397	$6,397	$6,397	$6,397	$6,397	$6,397	$6,397	$6,397	$6,397	$6,397	$6,397	$6,397	$76,764
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$19,206	$19,159	$19,111	$19,064	$19,016	$18,969	$18,921	$18,873	$18,826	$18,778	$18,731	$18,683	$227,337
	a. Recoverable Costs Allocated to Energy		19,206	19,159	19,111	19,064	19,016	18,969	18,921	18,873	18,826	18,778	18,731	18,683	227,337
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		19,202	19,158	19,111	19,061	19,004	18,942	18,892	18,844	18,807	18,772	18,731	18,682	227,206
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$19,202	$19,158	$19,111	$19,061	$19,004	$18,942	$18,892	$18,844	$18,807	$18,772	$18,731	$18,682	$227,206

Notes:
(A) Applicable depreciable base for Big Bend; account 312.44
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 3.0%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

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DOCKET NO. 160007-EI
ECRC 2017 PROJECTION, FORM 42-4P
EXHIBIT NO. PAR-3, DOCUMENT NO. 4,PAGE 14 OF 26

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Unit 1 Pre-SCR
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$1,649,121	$1,649,121	$1,649,121	$1,649,121	$1,649,121	$1,649,121	$1,649,121	$1,649,121	$1,649,121	$1,649,121	$1,649,121	$1,649,121	$1,649,121	
3.	Less: Accumulated Depreciation	(599,665)	(605,162)	(610,659)	(616,156)	(621,653)	(627,150)	(632,647)	(638,144)	(643,641)	(649,138)	(654,635)	(660,132)	(665,629)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$1,049,456	1,043,959	1,038,462	1,032,965	1,027,468	1,021,971	1,016,474	1,010,977	1,005,480	999,983	994,486	988,989	983,492	
6.	Average Net Investment		1,046,708	1,041,211	1,035,714	1,030,217	1,024,720	1,019,223	1,013,726	1,008,229	1,002,732	997,235	991,738	986,241	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$6,130	$6,097	$6,065	$6,033	$6,001	$5,969	$5,936	$5,904	$5,872	$5,840	$5,808	$5,776	$71,431
	b. Debt Component Grossed Up For Taxes (C)		1,653	1,644	1,635	1,627	1,618	1,609	1,601	1,592	1,583	1,574	1,566	1,557	19,259
8.	Investment Expenses														
	a. Depreciation (D)		$5,497	$5,497	$5,497	$5,497	$5,497	$5,497	$5,497	$5,497	$5,497	$5,497	$5,497	$5,497	$65,964
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$13,280	$13,238	$13,197	$13,157	$13,116	$13,075	$13,034	$12,993	$12,952	$12,911	$12,871	$12,830	$156,654
	a. Recoverable Costs Allocated to Energy		13,280	13,238	13,197	13,157	13,116	13,075	13,034	12,993	12,952	12,911	12,871	12,830	156,654
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		13,277	13,237	13,197	13,155	13,108	13,057	13,014	12,973	12,939	12,907	12,871	12,829	156,564
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$13,277	$13,237	$13,197	$13,155	$13,108	$13,057	$13,014	$12,973	$12,939	$12,907	$12,871	$12,829	$156,564

Notes:
(A) Applicable depreciable base for Big Bend; account 312.41
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 4.0%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Unit 2 Pre-SCR
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$1,581,887	$1,581,887	$1,581,887	$1,581,887	$1,581,887	$1,581,887	$1,581,887	$1,581,887	$1,581,887	$1,581,887	$1,581,887	$1,581,887	$1,581,887	
3.	Less: Accumulated Depreciation	(535,796)	(540,673)	(545,550)	(550,427)	(555,304)	(560,181)	(565,058)	(569,935)	(574,812)	(579,689)	(584,566)	(589,443)	(594,320)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$1,046,091	1,041,214	1,036,337	1,031,460	1,026,583	1,021,706	1,016,829	1,011,952	1,007,075	1,002,198	997,321	992,444	987,567	
6.	Average Net Investment		1,043,653	1,038,776	1,033,899	1,029,022	1,024,145	1,019,268	1,014,391	1,009,514	1,004,637	999,760	994,883	990,006	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$6,112	$6,083	$6,055	$6,026	$5,997	$5,969	$5,940	$5,912	$5,883	$5,855	$5,826	$5,798	$71,456
	b. Debt Component Grossed Up For Taxes (C)		1,648	1,640	1,632	1,625	1,617	1,609	1,602	1,594	1,586	1,578	1,571	1,563	19,265
8.	Investment Expenses														
	a. Depreciation (D)		$4,877	$4,877	$4,877	$4,877	$4,877	$4,877	$4,877	$4,877	$4,877	$4,877	$4,877	$4,877	$58,524
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$12,637	$12,600	$12,564	$12,528	$12,491	$12,455	$12,419	$12,383	$12,346	$12,310	$12,274	$12,238	$149,245
	a. Recoverable Costs Allocated to Energy		12,637	12,600	12,564	12,528	12,491	12,455	12,419	12,383	12,346	12,310	12,274	12,238	149,245
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		12,635	12,599	12,564	12,526	12,483	12,438	12,400	12,364	12,333	12,306	12,274	12,237	149,159
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$12,635	$12,599	$12,564	$12,526	$12,483	$12,438	$12,400	$12,364	$12,333	$12,306	$12,274	$12,237	$149,159

Notes:
(A) Applicable depreciable base for Big Bend; account 312.42
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 3.7%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Unit 3 Pre-SCR
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$2,706,507	$2,706,507	$2,706,507	$2,706,507	$2,706,507	$2,706,507	$2,706,507	$2,706,507	$2,706,507	$2,706,507	$2,706,507	$2,706,507	$2,706,507	
3.	Less: Accumulated Depreciation	(736,766)	(744,719)	(752,672)	(760,625)	(768,578)	(776,531)	(784,484)	(792,437)	(800,390)	(808,343)	(816,296)	(824,249)	(832,202)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$1,969,741	1,961,788	1,953,835	1,945,882	1,937,929	1,929,976	1,922,023	1,914,070	1,906,117	1,898,164	1,890,211	1,882,258	1,874,305	
6.	Average Net Investment		1,965,765	1,957,812	1,949,859	1,941,906	1,933,953	1,926,000	1,918,047	1,910,094	1,902,141	1,894,188	1,886,235	1,878,282	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$11,512	$11,465	$11,419	$11,372	$11,325	$11,279	$11,232	$11,186	$11,139	$11,093	$11,046	$10,999	$135,067
	b. Debt Component Grossed Up For Taxes (C)		3,104	3,091	3,079	3,066	3,053	3,041	3,028	3,016	3,003	2,991	2,978	2,965	36,415
8.	Investment Expenses														
	a. Depreciation (D)		$7,953	$7,953	$7,953	$7,953	$7,953	$7,953	$7,953	$7,953	$7,953	$7,953	$7,953	$7,953	$95,436
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$22,569	$22,509	$22,451	$22,391	$22,331	$22,273	$22,213	$22,155	$22,095	$22,037	$21,977	$21,917	$266,918
	a. Recoverable Costs Allocated to Energy		22,569	22,509	22,451	22,391	22,331	22,273	22,213	22,155	22,095	22,037	21,977	21,917	266,918
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		22,565	22,508	22,451	22,387	22,317	22,242	22,179	22,121	22,073	22,030	21,977	21,915	266,765
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$22,565	$22,508	$22,451	$22,387	$22,317	$22,242	$22,179	$22,121	$22,073	$22,030	$21,977	$21,915	$266,765

Notes:

(A) Applicable depreciable base for Big Bend; account 312.43 ($1,995,677) and 315.43 ($710,830)
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 3.5% and 3.6%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Unit 1 SCR
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$85,719,102	$85,719,102	$85,719,102	$85,719,102	$85,719,102	$85,719,102	$85,719,102	$85,719,102	$85,719,102	$85,719,102	$85,719,102	$85,719,102	$85,719,102	
3.	Less: Accumulated Depreciation	(25,139,646)	(25,448,812)	(25,757,978)	(26,067,144)	(26,376,310)	(26,685,476)	(26,994,642)	(27,303,808)	(27,612,974)	(27,922,140)	(28,231,306)	(28,540,472)	(28,849,638)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$60,579,456	60,270,290	59,961,124	59,651,958	59,342,792	59,033,626	58,724,460	58,415,294	58,106,128	57,796,962	57,487,796	57,178,630	56,869,464	
6.	Average Net Investment		60,424,873	60,115,707	59,806,541	59,497,375	59,188,209	58,879,043	58,569,877	58,260,711	57,951,545	57,642,379	57,333,213	57,024,047	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$353,853	$352,043	$350,232	$348,422	$346,611	$344,801	$342,990	$341,180	$339,369	$337,559	$335,748	$333,938	$4,126,746
	b. Debt Component Grossed Up For Taxes (C)		95,401	94,913	94,425	93,936	93,448	92,960	92,472	91,984	91,496	91,008	90,520	90,031	1,112,594
8.	Investment Expenses														
	a. Depreciation (D)		$309,166	$309,166	$309,166	$309,166	$309,166	$309,166	$309,166	$309,166	$309,166	$309,166	$309,166	$309,166	$3,709,992
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$758,420	$756,122	$753,823	$751,524	$749,225	$746,927	$744,628	$742,330	$740,031	$737,733	$735,434	$733,135	$8,949,332
	a. Recoverable Costs Allocated to Energy		758,420	756,122	753,823	751,524	749,225	746,927	744,628	742,330	740,031	737,733	735,434	733,135	8,949,332
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		758,276	756,075	753,808	751,393	748,743	745,881	743,501	741,179	739,281	737,493	735,434	733,078	8,944,142
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$758,276	$756,075	$753,808	$751,393	$748,743	$745,881	$743,501	$741,179	$739,281	$737,493	$735,434	$733,078	$8,944,142

Notes:
(A) Applicable depreciable base for Big Bend; account 311.51 ($22,278,982), 312.51 ($48,529,672), 315.51 ($14,063,245), and 316.51 ($847,203).
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 4.1%, 4.3%, 4.8% and 4.1%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

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DOCKET NO. 160007-EI
ECRC 2017 PROJECTION, FORM 42-4P
EXHIBIT NO. PAR-3, DOCUMENT NO. 4, PAGE 18 OF 26

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Unit 2 SCR
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$95,175,309	$95,175,309	$95,175,309	$95,175,309	$95,175,309	$95,175,309	$95,175,309	$95,175,309	$95,175,309	$95,175,309	$95,175,309	$95,175,309	$95,175,309	
3.	Less: Accumulated Depreciation	(27,120,524)	(27,428,358)	(27,736,192)	(28,044,026)	(28,351,860)	(28,659,694)	(28,967,528)	(29,275,362)	(29,583,196)	(29,891,030)	(30,198,864)	(30,506,698)	(30,814,532)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$68,054,785	67,746,951	67,439,117	67,131,283	66,823,449	66,515,615	66,207,781	65,899,947	65,592,113	65,284,279	64,976,445	64,668,611	64,360,777	
6.	Average Net Investment		67,900,868	67,593,034	67,285,200	66,977,366	66,669,532	66,361,698	66,053,864	65,746,030	65,438,196	65,130,362	64,822,528	64,514,694	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$397,633	$395,830	$394,028	$392,225	$390,422	$388,620	$386,817	$385,014	$383,212	$381,409	$379,606	$377,803	$4,652,619
	b. Debt Component Grossed Up For Taxes (C)		107,204	106,718	106,232	105,746	105,260	104,774	104,288	103,802	103,316	102,830	102,344	101,858	1,254,372
8.	Investment Expenses														
	a. Depreciation (D)		$307,834	$307,834	$307,834	$307,834	$307,834	$307,834	$307,834	$307,834	$307,834	$307,834	$307,834	$307,834	$3,694,008
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$812,671	$810,382	$808,094	$805,805	$803,516	$801,228	$798,939	$796,650	$794,362	$792,073	$789,784	$787,495	$9,600,999
	a. Recoverable Costs Allocated to Energy		812,671	810,382	808,094	805,805	803,516	801,228	798,939	796,650	794,362	792,073	789,784	787,495	9,600,999
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		812,517	810,332	808,078	805,665	803,000	800,106	797,730	795,415	793,557	791,815	789,784	787,433	9,595,432
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$812,517	$810,332	$808,078	$805,665	$803,000	$800,106	$797,730	$795,415	$793,557	$791,815	$789,784	$787,433	$9,595,432

Notes:
(A) Applicable depreciable base for Big Bend; account 311.52 ($25,208,869), 312.52 ($53,093,397), 315.52 ($15,914,427), and 316.52 ($958,616).
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rates are 3.5%, 4.0%, 4.1% and 3.7%.
(E) Line 9a x Line 10
(F) Line 9b x Line 11

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DOCKET NO. 160007-EI
ECRC 2017 PROJECTION, FORM 42-4P
EXHIBIT NO. PAR-3, DOCUMENT NO. 4,PAGE 19 OF 26

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Unit 3 SCR
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$4,000	$35,000	$326,108	$72,781	$246,997	$10,496	$105,000	$0	$0	$0	$0	$0	$800,382
	b. Clearings to Plant		0	0	0	0	0	1,061,632	105,000	0	0	0	0	0	1,166,632
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$80,369,887	$80,369,887	$80,369,887	$80,369,887	$80,369,887	$80,369,887	$81,431,519	$81,536,519	$81,536,519	$81,536,519	$81,536,519	$81,536,519	$81,536,519	
3.	Less: Accumulated Depreciation	(24,927,025)	(25,174,566)	(25,422,107)	(25,669,648)	(25,917,189)	(26,164,730)	(26,412,271)	(26,663,262)	(26,914,594)	(27,165,926)	(27,417,258)	(27,668,590)	(27,919,922)	
4.	CWIP - Non-Interest Bearing	366,250	370,250	405,250	731,358	804,139	1,051,136	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
5.	Net Investment (Lines 2 + 3 + 4)	$55,809,111	55,565,570	55,353,029	55,431,596	55,256,836	55,256,292	55,019,247	54,873,256	54,621,924	54,370,592	54,119,260	53,867,928	53,616,596	
6.	Average Net Investment		55,687,341	55,459,300	55,392,313	55,344,216	55,256,564	55,137,770	54,946,252	54,747,590	54,496,258	54,244,926	53,993,594	53,742,262	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$326,110	$324,774	$324,382	$324,100	$323,587	$322,891	$321,770	$320,606	$319,135	$317,663	$316,191	$314,719	$3,855,928
	b. Debt Component Grossed Up For Taxes (C)		87,921	87,561	87,455	87,379	87,241	87,053	86,751	86,437	86,041	85,644	85,247	84,850	1,039,580
8.	Investment Expenses														
	a. Depreciation (D)		$247,541	$247,541	$247,541	$247,541	$247,541	$247,541	$250,991	$251,332	$251,332	$251,332	$251,332	$251,332	$2,992,897
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$661,572	$659,876	$659,378	$659,020	$658,369	$657,485	$659,512	$658,375	$656,508	$654,639	$652,770	$650,901	$7,888,405
	a. Recoverable Costs Allocated to Energy		661,572	659,876	659,378	659,020	658,369	657,485	659,512	658,375	656,508	654,639	652,770	650,901	7,888,405
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		661,446	659,835	659,365	658,905	657,946	656,564	658,514	657,354	655,843	654,426	652,770	650,850	7,883,818
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$661,446	$659,835	$659,365	$658,905	$657,946	$656,564	$658,514	$657,354	$655,843	$654,426	$652,770	$650,850	$7,883,818

Notes:
(A) Applicable depreciable base for Big Bend; account 311.53 ($21,689,422), 312.53 ($45,331,460), 315.53 ($13,690,954), and 316.53 ($824,684).
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rates are 3.1%, 3.9%, 4.0%, and 3.4%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Unit 4 SCR
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$65,309,727	$65,309,727	$65,309,727	$65,309,727	$65,309,727	$65,309,727	$65,309,727	$65,309,727	$65,309,727	$65,309,727	$65,309,727	$65,309,727	$65,309,727	
3.	Less: Accumulated Depreciation	(20,261,226)	(20,448,927)	(20,636,628)	(20,824,329)	(21,012,030)	(21,199,731)	(21,387,432)	(21,575,133)	(21,762,834)	(21,950,535)	(22,138,236)	(22,325,937)	(22,513,638)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$45,048,501	44,860,800	44,673,099	44,485,398	44,297,697	44,109,996	43,922,295	43,734,594	43,546,893	43,359,192	43,171,491	42,983,790	42,796,089	
6.	Average Net Investment		44,954,650	44,766,949	44,579,248	44,391,547	44,203,846	44,016,145	43,828,444	43,640,743	43,453,042	43,265,341	43,077,640	42,889,939	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$263,258	$262,159	$261,060	$259,961	$258,861	$257,762	$256,663	$255,564	$254,465	$253,365	$252,266	$251,167	$3,086,551
	b. Debt Component Grossed Up For Taxes (C)		70,976	70,680	70,383	70,087	69,791	69,494	69,198	68,901	68,605	68,309	68,012	67,716	832,152
8.	Investment Expenses														
	a. Depreciation (D)		$187,701	$187,701	$187,701	$187,701	$187,701	$187,701	$187,701	$187,701	$187,701	$187,701	$187,701	$187,701	$2,252,412
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$521,935	$520,540	$519,144	$517,749	$516,353	$514,957	$513,562	$512,166	$510,771	$509,375	$507,979	$506,584	$6,171,115
	a. Recoverable Costs Allocated to Energy		521,935	520,540	519,144	517,749	516,353	514,957	513,562	512,166	510,771	509,375	507,979	506,584	6,171,115
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	-
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		521,836	520,508	519,134	517,659	516,021	514,236	512,785	511,372	510,253	509,209	507,979	506,544	6,167,536
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$521,836	$520,508	$519,134	$517,659	$516,021	$514,236	$512,785	$511,372	$510,253	$509,209	$507,979	$506,544	$6,167,536

Notes:

(A) Applicable depreciable base for Big Bend; account 311.54 ($16,857,250), 312.54 ($36,567,266), 315.54 ($10,642,027), 316.54 ($687,934) & 315.40 ($555,250).
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 2.4%, 3.8%, 3.9%, 3.3% and 3.7%.
(E) Line 9a x Line 10
(F) Line 9b x Line 11

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DOCKET NO. 160007-EI
ECRC 2017 PROJECTION, FORM 42-4P
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Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend FGD System Reliability
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	$24,336,707	$24,336,707	$24,336,707	$24,336,707	$24,336,707	$24,336,707	$24,336,707	$24,336,707	$24,336,707	$24,336,707	$24,336,707	$24,336,707	$24,336,707	
3.	Less: Accumulated Depreciation	(3,984,954)	(4,036,263)	(4,087,572)	(4,138,881)	(4,190,190)	(4,241,499)	(4,292,808)	(4,344,117)	(4,395,426)	(4,446,735)	(4,498,044)	(4,549,353)	(4,600,662)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$20,351,753	20,300,444	20,249,135	20,197,826	20,146,517	20,095,208	20,043,899	19,992,590	19,941,281	19,889,972	19,838,663	19,787,354	19,736,045	
6.	Average Net Investment		20,326,099	20,274,790	20,223,481	20,172,172	20,120,863	20,069,554	20,018,245	19,966,936	19,915,627	19,864,318	19,813,009	19,761,700	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$119,031	$118,731	$118,430	$118,130	$117,829	$117,529	$117,229	$116,928	$116,628	$116,327	$116,027	$115,726	$1,408,545
	b. Debt Component Grossed Up For Taxes (C)		32,092	32,011	31,930	31,848	31,767	31,686	31,605	31,524	31,443	31,362	31,281	31,200	379,749
8.	Investment Expenses														
	a. Depreciation (D)		$51,309	$51,309	$51,309	$51,309	$51,309	$51,309	$51,309	$51,309	$51,309	$51,309	$51,309	$51,309	$615,708
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$202,432	$202,051	$201,669	$201,287	$200,905	$200,524	$200,143	$199,761	$199,380	$198,998	$198,617	$198,235	$2,404,002
	a. Recoverable Costs Allocated to Energy		202,432	202,051	201,669	201,287	200,905	200,524	200,143	199,761	199,380	198,998	198,617	198,235	2,404,002
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		202,394	202,039	201,665	201,252	200,776	200,243	199,840	199,451	199,178	198,933	198,617	198,219	2,402,607
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$202,394	$202,039	$201,665	$201,252	$200,776	$200,243	$199,840	$199,451	$199,178	$198,933	$198,617	$198,219	$2,402,607

Notes:

(A) Applicable depreciable base for Big Bend; account 312.45 ($22,880,499) and 312.44 ($1,456,209).
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 2.5% and 3.0%.
(E) Line 9a x Line 10
(F) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Mercury Air Toxics Standards (MATS)
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$80,000	$0	$0	$0	$0	$80,000	$0	$0	$160,000
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other - AFUDC (excl from CWIP)		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	8,570,804	8,570,804	8,570,804	8,570,804	8,570,804	8,570,804	8,570,804	8,570,804	8,570,804	8,570,804	8,570,804	8,570,804	8,570,804	
3.	Less: Accumulated Depreciation	(893,126)	(914,959)	(936,792)	(958,625)	(980,458)	(1,002,291)	(1,024,124)	(1,045,957)	(1,067,790)	(1,089,623)	(1,111,456)	(1,133,289)	(1,155,122)	
4.	CWIP - Non-Interest Bearing	0	-	-	-	-	80,000	80,000	80,000	80,000	80,000	160,000	160,000	160,000	
5.	Net Investment (Lines 2 + 3 + 4)	$7,677,678	7,655,845	7,634,012	7,612,179	7,590,346	7,648,513	7,626,680	7,604,847	7,583,014	7,561,181	7,619,348	7,597,515	7,575,682	
6.	Average Net Investment		7,666,762	7,644,929	7,623,096	7,601,263	7,619,430	7,637,597	7,615,764	7,593,931	7,572,098	7,590,265	7,608,432	7,586,599	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$44,897	$44,769	$44,641	$44,514	$44,620	$44,726	$44,599	$44,471	$44,343	$44,449	$44,556	$44,428	$535,013
	b. Debt Component Grossed Up For Taxes (C)		12,105	12,070	12,036	12,001	12,030	12,058	12,024	11,990	11,955	11,984	12,012	11,978	144,243
8.	Investment Expenses														
	a. Depreciation (D)		$21,833	$21,833	$21,833	$21,833	$21,833	$21,833	$21,833	$21,833	$21,833	$21,833	$21,833	$21,833	$261,996
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$78,835	$78,672	$78,510	$78,348	$78,483	$78,617	$78,456	$78,294	$78,131	$78,266	$78,401	$78,239	$941,252
	a. Recoverable Costs Allocated to Energy		78,835	78,672	78,510	78,348	78,483	78,617	78,456	78,294	78,131	78,266	78,401	78,239	941,252
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		78,820	78,667	78,508	78,334	78,433	78,507	78,337	78,173	78,052	78,241	78,401	78,233	940,706
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$78,820	$78,667	$78,508	$78,334	$78,433	$78,507	$78,337	$78,173	$78,052	$78,241	$78,401	$78,233	$940,706

Notes:

(A) Applicable depreciable base for Big Bend and Polk; accounts 312.44 ($3,427,652), 341.80($26,150), 315.40 ($1,226,949), 315.41 ($138,853), 315.42 ($138,853), 315.44 ($16,035), 312.45 ($2,053,017), 312.46 ($1,242,315), 315.45 ($40,217) and 315.46 ($35,022), 311.40 ($13,216), 345.81 ($2,232), and 312.54 ($210,295)
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 3.0%, 2.2%, 3.7%, 3.5%, 3.3%, 3.2%, 2.5%, 3.3%, 3.1%, 3.5%, 2.9%, 3.3%, and 3.8%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

For Project: SO_2 Emissions Allowances
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Purchases/Transfers		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Sales/Transfers		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Auction Proceeds/Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Working Capital Balance														
	a. FERC 158.1 Allowance Inventory	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
	b. FERC 158.2 Allowances Withheld	0	0	0	0	0	0	0	0	0	0	0	0	0	
	c. FERC 182.3 Other Regl. Assets - Losses	0	0	0	0	0	0	0	0	0	0	0	0	0	
	d. FERC 254.01 Regulatory Liabilities - Gains	(34,793)	(34,755)	(34,727)	(34,692)	(34,650)	(34,613)	(34,574)	(34,528)	(34,479)	(34,434)	(34,388)	(34,357)	(34,319)	
3.	Total Working Capital Balance	($34,793)	(34,755)	(34,727)	(34,692)	(34,650)	(34,613)	(34,574)	(34,528)	(34,479)	(34,434)	(34,388)	(34,357)	(34,319)	
4.	Average Net Working Capital Balance		($34,774)	($34,741)	($34,709)	($34,671)	($34,631)	($34,593)	($34,551)	($34,504)	($34,457)	($34,411)	($34,373)	($34,338)	
5.	Return on Average Net Working Capital Balance														
	a. Equity Component Grossed Up For Taxes (A)		($204)	($203)	($203)	($203)	($203)	($203)	($202)	($202)	($202)	($202)	($201)	($201)	($2,429)
	b. Debt Component Grossed Up For Taxes (B)		(55)	(55)	(55)	(55)	(55)	(55)	(55)	(54)	(54)	(54)	(54)	(54)	(655)
6.	Total Return Component		(259)	(258)	(258)	(258)	(258)	(258)	(257)	(256)	(256)	(256)	(255)	(255)	(3,084)
7.	Expenses:														
	a. Gains		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Losses		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. SO_2 Allowance Expense		754	753	759	747	752	754	737	744	744	744	767	736	8,990
8.	Net Expenses (D)		754	753	759	747	752	754	737	744	744	744	767	736	8,990
9.	Total System Recoverable Expenses (Lines 6 + 8)		$495	$495	$501	$489	$494	$496	$480	$488	$488	$488	$512	$481	$5,906
	a. Recoverable Costs Allocated to Energy		495	495	501	489	494	496	480	488	488	488	512	481	5906
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		495	495	501	489	494	495	480	487	487	488	512	481	5,904
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Juris. Recoverable Costs (Lines 12 + 13)		$495	$495	$501	$489	$494	$495	$480	$487	$487	$488	$512	$481	$5,904

Notes:
(A) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(B) Line 6 x 1.8946% x 1/12.
(C) Line 6 is reported on Schedule 3P.
(D) Line 8 is reported on Schedule 2P.
(E) Line 9a x Line 10
(F) Line 9b x Line 11

* Totals on this schedule may not foot due to rounding.

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ECRC 2017 PROJECTION, FORM 42-4P
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Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend Gypsum Storage Facility
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other - AFUDC (excl from CWIP)		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	21,465,085	21,465,085	21,465,085	21,465,085	21,465,085	21,465,085	21,465,085	21,465,085	21,465,085	21,465,085	21,465,085	21,465,085	21,465,085	
3.	Less: Accumulated Depreciation	(1,287,262)	(1,339,136)	(1,391,010)	(1,442,884)	(1,494,758)	(1,546,632)	(1,598,506)	(1,650,380)	(1,702,254)	(1,754,128)	(1,806,002)	(1,857,876)	(1,909,750)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$20,177,823	20,125,949	20,074,075	20,022,201	19,970,327	19,918,453	19,866,579	19,814,705	19,762,831	19,710,957	19,659,083	19,607,209	19,555,335	
6.	Average Net Investment		20,151,886	20,100,012	20,048,138	19,996,264	19,944,390	19,892,516	19,840,642	19,788,768	19,736,894	19,685,020	19,633,146	19,581,272	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$118,011	$117,707	$117,404	$117,100	$116,796	$116,492	$116,188	$115,885	$115,581	$115,277	$114,973	$114,670	$1,396,084
	b. Debt Component Grossed Up For Taxes (C)		31,816	31,735	31,653	31,571	31,489	31,407	31,325	31,243	31,161	31,079	30,997	30,916	376,392
8.	Investment Expenses														
	a. Depreciation (D)		$51,874	$51,874	$51,874	$51,874	$51,874	$51,874	$51,874	$51,874	$51,874	$51,874	$51,874	$51,874	$622,488
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$201,701	$201,316	$200,931	$200,545	$200,159	$199,773	$199,387	$199,002	$198,616	$198,230	$197,844	$197,460	$2,394,964
	a. Recoverable Costs Allocated to Energy		201,701	201,316	200,931	200,545	200,159	199,773	199,387	199,002	198,616	198,230	197,844	197,460	2,394,964
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		201,663	201,304	200,927	200,510	200,030	199,493	199,085	198,693	198,415	198,165	197,844	197,445	2,393,574
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$201,663	$201,304	$200,927	$200,510	$200,030	$199,493	$199,085	$198,693	$198,415	$198,165	$197,844	$197,445	$2,393,574

Notes:
(A) Applicable depreciable base for Big Bend; accounts 311.40
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 2.9%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

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Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2017 to December 2017

Return on Capital Investments, Depreciation and Taxes
For Project: Coal Combustion Residuals (CCR) Rule
(in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		$125,000	$150,000	$200,000	$250,000	$400,000	$550,000	$550,000	$850,000	$1,050,000	$1,025,000	$800,000	$400,000	$6,350,000
	b. Clearings to Plant		100,000	100,000	150,000	150,000	575,000	250,000	250,000	250,000	250,000	225,000	200,000	0	2,500,000
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other - AFUDC (excl from CWIP)		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	104,485	204,485	304,485	454,485	604,485	1,179,485	1,429,485	1,679,485	1,929,485	2,179,485	2,404,485	2,604,485	2,604,485	
3.	Less: Accumulated Depreciation	(136)	(397)	(908)	(1,669)	(2,805)	(4,316)	(7,265)	(10,839)	(15,038)	(19,862)	(25,311)	(31,322)	(37,833)	
4.	CWIP - Non-Interest Bearing	176,258	201,258	251,258	301,258	401,258	226,258	526,258	826,258	1,426,258	2,226,258	3,026,258	3,626,258	4,026,258	
5.	Net Investment (Lines 2 + 3 + 4)	$280,607	405,346	554,835	754,074	1,002,938	1,401,427	1,948,478	2,494,904	3,340,705	4,385,881	5,405,432	6,199,421	6,592,910	
6.	Average Net Investment		342,977	480,091	654,455	878,506	1,202,183	1,674,953	2,221,691	2,917,805	3,863,293	4,895,657	5,802,427	6,396,166	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$2,009	$2,811	$3,833	$5,145	$7,040	$9,809	$13,010	$17,087	$22,624	$28,669	$33,979	$37,456	$183,472
	b. Debt Component Grossed Up For Taxes (C)		542	758	1,033	1,387	1,898	2,644	3,508	4,607	6,099	7,729	9,161	10,098	49,464
8.	Investment Expenses														
	a. Depreciation (D)		$261	$511	$761	$1,136	$1,511	$2,949	$3,574	$4,199	$4,824	$5,449	$6,011	$6,511	$37,697
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		$2,812	$4,080	$5,627	$7,668	$10,449	$15,402	$20,092	$25,893	$33,547	$41,847	$49,151	$54,065	$270,633
	a. Recoverable Costs Allocated to Energy		0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Recoverable Costs Allocated to Demand		2,812	4,080	5,627	7,668	10,449	15,402	20,092	25,893	33,547	41,847	49,151	54,065	270,633
10.	Energy Jurisdictional Factor		0.9998103	0.9999385	0.9999800	0.9998259	0.9993573	0.9985997	0.9984870	0.9984497	0.9989864	0.9996746	1.0000000	0.9999217	
11.	Demand Jurisdictional Factor		0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	0.9958992	
12.	Retail Energy-Related Recoverable Costs (E)		0	0	0	0	0	0	0	0	0	0	0	0	0
13.	Retail Demand-Related Recoverable Costs (F)		2,800	4,063	5,604	7,637	10,406	15,339	20,010	25,787	33,409	41,675	48,949	53,843	269,523
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$2,800	$4,063	$5,604	$7,637	$10,406	$15,339	$20,010	$25,787	$33,409	$41,675	$48,949	$53,843	$269,523

Notes:
(A) Applicable depreciable base for Big Bend; accounts 312.44
(B) Line 6 x 7.0273% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 38.575% (expansion factor of 1.632200).
(C) Line 6 x 1.8946% x 1/12.
(D) Applicable depreciation rate is 3.0%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

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Tampa Electric Company
Environmental Cost Recovery Clause
January 2017 through December 2017
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend Unit 3 Flue Gas Desulfurization Integration

Project Description:

This project involved the integration of Big Bend Unit 3 flue gases into the Big Bend Unit 4 Flue Gas Desulfurization ("FGD") system. The integration was accomplished by installing interconnecting ductwork between Unit 3 precipitator outlet ducts and the Unit 4 FGD inlet duct. The Unit 4 FGD outlet duct was interconnected with the Unit 3 chimney via new ductwork and a new stack breaching. New ductwork, linings, isolation dampers, support steel, and stack annulus pressurization fans were procured and installed. Modifications to the materials handling systems and controls were also necessary.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016, is $1,138,296 compared to the original projection of $1,139,394, resulting in an insignificant variance.

The actual/estimated O&M expense for the period January 2016 through December 2016 is $5,854,556 compared to the original projection of $5,844,840, resulting in an insignificant variance.

Progress Summary: This project was approved by the Commission in Docket No. 960688-EI, Order No. PSC-96-1048-FOF-EI, issued August 14, 1996. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017, is expected to be $1,104,032.

Estimated O&M costs for the period January 2017 through December 2017 are projected to be $5,539,740.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2017 through December 2017
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend Units 1 & 2 Flue Gas Conditioning

Project Description:

The existing electrostatic precipitators were not designed for the range of fuels needed for compliance with the Clean Air Act Amendments ("CAAA"). Flue gas conditioning was required to assure operation of the generating units in accordance with applicable permits and regulations. This equipment is still required to ensure compliance with the CAAA in the event the FGD system on Units 1 & 2 is not operating.

The project involved the addition of molten sulfur unloading, storage and conveying to sulfur burners and catalytic converters where SO_2 is converted to SO_3. The control and injection system then injects this into the ductwork ahead of the electrostatic precipitators.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $294,888 compared to the original projection of $295,317, resulting in an insignificant variance.

The actual/estimated O&M expense for this project for the period January 2016 through December 2016 is $0 and did not vary from the original projection.

Progress Summary: This project was approved by the Commission in Docket No. 960688-EI, Order No. PSC-96-1048-FOF-EI, issued August 14, 1996. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $277,137.

There are no estimated O&M costs projected for the period of January 2017 through December 2017.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2017 through December 2017
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend Unit 4 Continuous Emissions Monitors

Project Description:

Continuous emissions monitors ("CEMs") were installed on the flue gas inlet and outlet of Big Bend Unit 4 to monitor compliance with the CAAA requirements. The monitors are capable of measuring, recording and electronically reporting SO_2, NO_x and volumetric gas flow out of the stack. The project consisted of monitors, a CEM building, the CEMs control and power cables to supply a complete system.

40 CFR Part 75 includes the general requirements for the installation, certification, operation and maintenance of CEMs and specific requirements for the monitoring of pollutants, opacity and volumetric flow. These regulations are very comprehensive and specific as to the requirements for CEMs, and in essence, they define the components needed and their configuration.

Project Accomplishment:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $60,487 compared to the original projection of $60,631, resulting in an insignificant variance.

Progress Summary: This project was approved by the Commission in Docket No. 960688-EI, Order No. PSC-96-1048-FOF-EI, issued August 14, 1996. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $57,868.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2017 through December 2017
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend Unit 1 Classifier Replacement

Project Description:

The boiler modifications at Big Bend Unit 1 are part of Tampa Electric's NO_X compliance strategy for Phase II of the CAAA. The classifier replacements optimize coal fineness by providing a uniform particle size. This finer classification, combined with the equalized distribution of coal to outlet pipes and furnaces, enables a uniform, staged combustion. As a result, firing systems operate at lower NO_X levels.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $95,085 compared to the original projection of $95,268, resulting in an insignificant variance.

Progress Summary: This project was approved by the Commission in Docket No. 980007-EI, Order No. PSC-98-1764-FOF-EI, issued December 31, 1998. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $90,195.

Tampa Electric Company
Environmental Cost Recovery Clause
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Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend Unit 2 Classifier Replacement

Project Description:

The boiler modifications at Big Bend Unit 2 are part of Tampa Electric's NO_X compliance strategy for Phase II of the CAAA. The classifier replacements optimize coal fineness by providing a more uniform particle size. This finer classification, combined with the equalized distribution of coal to outlet pipes and furnaces, enables a uniform, staged combustion. As a result, firing systems operate at lower NO_X levels.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $68,749 compared to the original projection of $68,888, resulting in an insignificant variance.

Progress Summary: This project was approved by the Commission in Docket No. 980007-EI, Order No. PSC-98-1764-FOF-EI, issued December 31, 1998. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $65,351.

Tampa Electric Company
Environmental Cost Recovery Clause
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Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend Units 1 & 2 FGD

Project Description:

The Big Bend Units 1 & 2 FGD system consists of equipment capable of removing SO_2 from the flue gas generated by the combustion of coal. The FGD was installed in order to comply with Phase II of the CAAA. Compliance with Phase II is required by January 1, 2000. The CAAA impose SO_2 emission limits on existing steam electric units with an output capacity of greater than 25 megawatts and all new utility units. Tampa Electric conducted an exhaustive analysis of options to comply with Phase II of the CAAA that culminated in the selection of the FGD project to serve Big Bend Units 1 & 2.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $7,109,364 compared to the original projection of $7,132,213, resulting in an insignificant variance.

The actual/estimated O&M expense for the period January 2016 through December 2016 is $8,224,426 compared to the original estimate of $9,795,402 resulting in a variance of 16 percent. This variance is due to Big Bend Units 1 and 2 burning more natural gas and less coal than projected earlier this year, which resulted in a reduction in the amount of consumables and maintenance needed.

Progress Summary: This project was approved by the Commission in Docket No. 980693-EI, Order No. PSC-99-0075-FOF-EI, issued January 11, 1999. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is expected to be $6,866,989.

Estimated O&M costs for the period January 2017 through December 2017 are projected to be $9,108,893.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2017 through December 2017
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend Section 114 Mercury Testing Platform

Project Description:

The Mercury Emissions Information Collection Effort is mandated by the EPA. The EPA asserts that Section 114 of the CAAA grants to the EPA the authority to request the collection of information necessary for it to study whether it is appropriate and necessary to develop performance or emission standards for electric utility steam generating units.

In a letter dated November 25, 1998, Tampa Electric was notified by the EPA that, pursuant to Section 114 of the CAAA, the company was required to periodically sample and analyze coal shipments for mercury and chlorine content during the period January 1, 1999 through December 31, 1999.

In addition to coal sampling, stack testing and analyses are also required. Tampa Electric received a second letter from EPA, dated March 11, 1999, requiring Tampa Electric to perform specialized mercury testing of the inlet and outlet of the last emission control device installed for Big Bend Units 1, 2 or 3, and Polk Unit 1 as part of the mercury data collection. Part of the cost incurred to perform the stack testing is due to the need to construct special test facilities at the Big Bend stack testing location to meet EPA's testing requirements.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016, is $10,142 compared to the original projection of $10,174, resulting in an insignificant variance.

Progress Summary: This project was approved by the Commission in Docket No. 990976-EI, Order No. PSC-99-2103-PAA-EI, issued October 25, 1999. The project was placed in-service in December 1999 and completed in May 2000.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is expected to be $9,802.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2017 through December 2017
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend FGD Optimization and Utilization

Project Description:

In order to meet the requirements of the FDEP Consent Final Judgment and the EPA Consent Decree, Tampa Electric was required to optimize the SO_2 removal efficiency and operations of the Big Bend Units 1, 2 and 3 FGD systems. Tampa Electric performed activities in three key areas to improve the performance and reliability of the Big Bend Units 1, 2 and 3 FGD systems. The majority of the improvements required on the Unit 3 tower module included the tower piping, nozzle and internal improvements, ductwork improvements, electrical system reliability improvements, tower control improvements, dibasic acid system improvements, booster fan reliability, absorber system improvements, quencher system improvements, and tower demister improvements. Big Bend Units 1 and 2 FGD system improvements included additional preventative maintenance, oxidation air control improvements, and tower water, air reagent and start-up piping upgrades. In order to ensure reliability of the FGD systems, improvements to the common limestone supply, gypsum de-watering stack reliability and wastewater treatment plant were also being performed.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $1,776,794 compared to the original projection of $1,782,205, resulting in an insignificant variance.

Progress Summary: This project was approved by the Commission in Docket No. 000685-EI, Order No. PSC-00-1906-PAA-EI, issued October 18, 2000. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is expected to be $1,722,805.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2017 through December 2017
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend PM Minimization and Monitoring

Project Description:

In order to meet the requirements of the FDEP Consent Final Judgment and the EPA Consent Decree, Tampa Electric is required to develop a Best Operational Practices ("BOP") study to minimize emissions from each electrostatic precipitator ("ESP") at Big Bend, as well as perform a best available control technology ("BACT") analysis for the upgrade of each existing ESP. The company is also required to install and operate particulate matter continuous emission monitors on Big Bend Units 1, 2 and 3 FGD systems. Tampa Electric identified improvements that were necessary to optimize ESP performance such as modifications to the turning vanes and precipitator distribution plates, and upgrades to the controls and software system of the precipitators. Tampa Electric incurred costs associated with the recommendations of the BOP study and the BACT analysis in 2001 and continues to experience O&M and capital expenditures.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $2,131,997 compared to the original projection of $2,299,671, resulting in an insignificant variance.

The actual/estimated O&M expense the period January 2016 through December 2016 is $904,367 compared to the original projection of $924,000 resulting in an insignificant variance.

Progress Summary: This project was approved by the Commission in Docket No. 001186-EI, Order No. PSC-00-2104-PAA-EI, issued November 6, 2000. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is expected to be $2,046,961.

Estimated O&M costs for the period January 2017 through December 2017 are projected to be $611,283.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2017 through December 2017
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend NO_x Emissions Reduction

Project Description:

In order to meet the requirements of the FDEP Consent Final Judgment and the EPA Consent Decree, Tampa Electric was required to spend up to $3 million with the goal to reduce NO_x emissions at Big Bend Station. By 2002, the Consent Decree required the company to achieve at least a 30 percent reduction beyond 1998 NO_x emission levels for Big Bend Units 1 and 2 and at least a 15 percent reduction in NO_x emissions from Big Bend Unit 3. Tampa Electric identified and completed projects that were the first steps to decrease NO_x emissions in these units such as burner and windbox modifications and the installation of a neural network system on each of the Big Bend units.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $592,359 compared to the original projection of $594,430, resulting in an insignificant variance.

The actual/estimated O&M expense the period January 2016 through December 2016 is $65,921 compared to the original projection of $130,000, resulting in a variance of 49.3 percent. This variance is due to the increased use of natural gas and reduced use of coal, resulting in less maintenance required.

Progress Summary: This project was approved by the Commission in Docket No. 001186-EI, Order No. PSC-00-2104-PAA-EI, issued November 6, 2000. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is expected to be $579,360.

Estimated O&M costs for the period January 2017 through December 2017 are projected to be $100,000.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2017 through December 2017
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend Fuel Oil Tank No. 1 Upgrade

Project Description:

The Big Bend Fuel Oil Tank No. 1 Upgrade is a 500,000 gallon field-erected fuel storage tank that is required to meet the requirements of FDEP Rule 62-762 as an existing field-erected above ground storage tank containing a regulated pollutant (diesel fuel). The rule required various modifications and a complete internal inspection by the end of 1999.

The scope of work for this project included cleaning and inspecting the tank in accordance with API 653 specifications, coating the internal floor plus 30 inches up the tank wall, installing an AEl Segundo bottom to the tank as well as installing a leak detection system, installing a spill containment for piping fittings and valves surrounding the tank, installing a new truck unloading facility and spill containment for the truck unloading facility, installing level instrumentation for overfill protection, installing secondary containment for below ground piping or reroute to above ground, and conducting a tank closure assessment.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $39,237 compared to the original projection of $39,333, resulting in an insignificant variance.

Progress Summary: This project was approved by the Commission in Docket No. 980007-EI, Order No. PSC-98-0408-FOF-EI, issued March 18, 1998. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $37,627.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2017 through December 2017
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend Fuel Oil Tank No. 2 Upgrade

Project Description:

The Big Bend Fuel Oil Tank No. 2 Upgrade is a 4,200,000 gallon field-erected fuel storage tank that is required to meet the requirements of FDEP Rule 62-762 as an existing field-erected above ground storage tank containing a regulated pollutant (diesel fuel). The rule required various modifications and a complete internal inspection by the end of 1999.

The scope of work for this project included cleaning and inspecting the tank in accordance with API 653 specifications, coating the internal floor plus 30 inches up the tank wall, installing an AEl Segundo bottom to the tank as well as installing a leak detection system, installing a spill containment for piping fittings and valves surrounding the tank, installing a new truck unloading facility and spill containment for the truck unloading facility, installing level instrumentation for overfill protection, installing secondary containment for below ground piping or reroute to above ground, and conducting a tank closure assessment.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $64,532 compared to the original projection of $64,693, resulting in an insignificant variance.

Progress Summary: This project was approved by the Commission in Docket No. 980007-EI, Order No. PSC-98-0408-FOF-EI, issued March 18, 1998. The project is complete and in-service

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $61,886.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2017 through December 2017
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: SO_2 Emission Allowances

Project Description:

The acid rain control title of the CAAA sets forth a comprehensive regulatory mechanism designed to control acid rain by limiting sulfur dioxide emissions by electric utilities. The CAAA requires reductions in SO_2 emissions in two phases. Phase I began on January 1, 1995 and applies to 110 mostly coal-fired utility plants containing about 260 generating units. These plants are owned by some 40 jurisdictional utility systems that are expected to reduce annual SO_2 emissions by as much as 4.5 million tons. Phase II began on January 1, 2000, and applies to virtually all existing steam-electric generating utility units with capacity exceeding 25 megawatts and to new generating utility units of any size. The EPA issues to the owners of generating units allowances (defined as an authorization to emit, during or after a specified calendar year, one ton of SO_2) equal to the number of tons of SO_2 emissions authorized by the CAAA. EPA does not assess a charge for the allowances it awards.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated return on average net working capital for the period January 2016 through December 2016 is ($3,136) compared to the original projection of ($3,140), resulting in an insignificant variance.

The actual/estimated O&M for the period January 2016 through December 2016 is $4,332 compared to the original projection of $8,805, resulting in a variance of 50.8 percent. The variance is driven by less cogeneration purchases than expected and the application of a lower emission allowance rate than originally projected.

Progress Summary: SO_2 emission allowances are being used by Tampa Electric to meet compliance standards for Phase I of the CAAA.

Project Projections: Estimated return on average net working capital for the period January 2017 through December 2017 is projected to be ($3,084).

Estimated O&M costs for the period January 2017 through December 2017 are projected to be $8,990.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2017 through December 2017
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: National Pollutant Discharge Elimination System ("NPDES") Annual Surveillance Fees

Project Description:

Chapter 62-4.052, Florida Administrative Code ("F. A. C."), implements the annual regulatory program and surveillance fees for wastewater permits. These fees are in addition to the application fees described in Rule 62-4.050, F. A. C. Tampa Electric's Big Bend, Polk Power and Bayside Stations are affected by this rule.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated O&M expense for the period January 2016 through December 2016 is $34,500 and did not vary from the original projection.

Progress Summary: NPDES Surveillance fees are paid annually for the prior year.

Projections: Estimated O&M costs for the period January 2017 through December 2017 are projected to be $34,500.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2017 through December 2017
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Gannon Thermal Discharge Study

Project Description:

This project was a direct requirement from the FDEP in conjunction with the renewal of Tampa Electric's Industrial Wastewater Facility Permit under the provisions of Chapter 403, Florida Statutes, and applicable rules of the Florida Administrative Code, which constitute authorization for the company's Gannon Station facility to discharge to waters of the State under the NPDES. The FDEP permit is Permit No. FL0000809. Specifically, Tampa Electric was required to perform a 316(a) determination for Gannon Station to ensure the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife with in the primary area of study. The project had two facets: 1) developing a plan of study and identified the thermal plume, and 2) implemented the plan of study through appropriate sampling to make the determination if any adverse impacts are occurring.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated O&M expense for the period January 2016 through December 2016 is $0 and did not vary from the original projection.

Progress Summary: This project was approved by the Commission in Docket No. 010593-EI, Order No. PSC-01-1847-PAA-EI on September 4, 2001. The project is complete and in-service.

Projections: There are no estimated O&M costs projected for the period of January 2017 through December 2017.

Tampa Electric Company
Environmental Cost Recovery Clause
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Description and Progress Report for
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Project Title: Polk NO_x Emissions Reduction

Project Description:

This project was designed to meet a lower NO_x emissions limit established by the FDEP for Polk Unit 1 by July 1, 2005. The lower limit of 15 parts per million by volume dry basis at 15 percent O_2 is specified in FDEP Permit No. PSD-FL-194F issued February 5, 2002. The project consisted of two phases: 1) the humidification of syngas through the installation of a syngas saturator; and 2) the modification of controls and the installation of additional guide vanes to the diluent nitrogen compressor.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $134,166 compared to the original projection of $134,519, resulting in an insignificant variance.

The actual/estimated O&M for the period January 2016 through December 2016 is $12,461 compared to the original projection of $20,000, which represents an insignificant variance.

Progress Summary: This project was approved by the Commission in Docket No. 020726-EI, Order No. PSC-02-1445-PAA-EI on October 21, 2002. The project is complete and in-service.

Project Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $129,067.

Estimated O&M costs for the period January 2017 through December 2017 are projected to be $20,000.

Tampa Electric Company
Environmental Cost Recovery Clause
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Project Title: Bayside SCR Consumables

Project Description:

This project is necessary to achieve the NO_x emissions limit of 3.5 parts per million established by the FDEP Consent Final Judgment and the EPA Consent Decree for the natural gas-fired Bayside Power Station. To achieve this NO_x limit, the installation of selective catalytic reduction (SCR) systems is required. An SCR system requires consumable goods – primarily anhydrous ammonia – to be injected into the catalyst bed in order to achieve the required NO_x emissions limit. Principally, the project was designed to capture the cost of consumable goods necessary to operate the SCR systems.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated O&M expense for the period January 2016 through December 2016 is $202,322, compared to the original projection of $204,000, resulting in an insignificant variance.

Progress Summary: This project was approved by the Commission in Docket No. 021255-EI, Order No. PSC-03-0469-PAA-EI, issued April 4, 2003. As an O&M project, expenses are ongoing annually.

Projections: Estimated O&M costs for the period January 2017 through December 2017 are projected to be $204,000.

Tampa Electric Company
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Project Title: Big Bend Unit 4 Separated Overfire Air ("SOFA")

Project Description:

This project is necessary to assist in achieving the NO_x emissions limit established by the FDEP Consent Final Judgment and the EPA Consent Decree for Big Bend Unit 4. A SOFA system stages secondary combustion air to prevent NO_x formation that would otherwise require removal by post-combustion technology. In-furnace combustion control through a SOFA system is the most cost-effective means to reduce NO_x emissions prior to the application of these technologies. Costs associated with the SOFA system entailed capital expenditures for equipment installation and subsequent annual maintenance.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $234,895 compared to the original projection of $235,586, resulting in an insignificant variance.

The actual/estimated O&M expense for this project for the period January 2016 through December 2016 is $0, compared to the original projection of $42,000, resulting in a variance of 100 percent. Since the company has burned less coal during 2016 than projected, there is not any expected maintenance associated with this project for 2016.

Progress Summary: This project was approved by the Commission in Docket No. 030226-EI, Order No. PSC-03-0684-PAA-EI, issued June 6, 2003. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $227,337.

Estimated O&M costs for the period January 2017 through December 2017 is projected to be $37,200.

Tampa Electric Company
Environmental Cost Recovery Clause
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Description and Progress Report for
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Project Title: Big Bend Unit 1 Pre-SCR

Project Description:

In order to meet the requirements of the FDEP Consent Final Judgment and the EPA Consent Decree, Tampa Electric was required to make additional reductions of NO_x emissions at Big Bend Station on a per unit basis at prescribed times from 2016 through 2017. Based on a comprehensive study, Tampa Electric has declared the future fuel for Big Bend Station to be coal which necessitated the installation of cost-effective SCR technology on the generating units to meet NO_x emissions requirements. Therefore, this project was a necessary precursor to an SCR system designed to reduce inlet NO_x concentrations to the SCR system thereby mitigating overall capital and O&M costs. The Big Bend Unit 1 Pre-SCR technologies included a neural network system, secondary air controls and windbox modifications.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $162,976 compared to the original projection of $163,398, resulting in an insignificant variance.

The actual/estimated O&M expense for this project for the period January 2016 through December 2016 is $15,243, compared to the original projection of $42,000, resulting in a variance of 63.7 percent. The company burned less coal at Big Bend Unit 1 than projected, eliminating the need for much of the maintenance on this unit.

Progress Summary: This project was approved by the Commission in Docket No. 040750-EI, Order No. PSC-04-1080-CO-EI, issued November 4, 2004. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $156,654.

Estimated O&M costs for the period of January 2017 through December 2017 is are projected to be $37,200.

Tampa Electric Company
Environmental Cost Recovery Clause
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Project Title: Big Bend Unit 2 Pre-SCR

Project Description:

In order to meet the requirements of the FDEP Consent Final Judgment and the EPA Consent Decree, Tampa Electric was required to make additional reductions of NO_x emissions at Big Bend Station on a per unit basis at prescribed times from 2016 through 2017. Based on a comprehensive study, Tampa Electric has declared the future fuel for Big Bend Station to be coal which necessitated the installation of cost-effective SCR technology on the generating units to meet NO_x emissions requirements. Therefore, this project was a necessary precursor to an SCR system designed to reduce inlet NO_x concentrations to the SCR system thereby mitigating overall capital and O&M costs. The Big Bend Unit 2 Pre-SCR technologies included secondary air controls and windbox modifications.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $154,898 compared to the original projection of $155,318, resulting in an insignificant variance.

The actual/estimated O&M expense for this project for the period January 2016 through December 2016 is $57,467, compared to the original projection of $42,000, resulting in a variance of 36.8 percent. There was a need to replace an additional bearing on the unit that increased the actual costs of this project.

Progress Summary: This project was approved by the Commission in Docket No. 040750-EI, Order No. PSC-04-1080-CO-EI, issued November 4, 2004. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $149,245.

Estimated O&M costs for the period of January 2017 through December 2017 is are projected to be $37,200.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2017 through December 2017
Description and Progress Report for
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Project Title: Big Bend Unit 3 Pre-SCR

Project Description:

In order to meet the requirements of the FDEP Consent Final Judgment and the EPA Consent Decree, Tampa Electric was required to make additional reductions of NO_x emissions at Big Bend Station on a per unit basis at prescribed times from 2016 through 2017. Based on a comprehensive study, Tampa Electric has declared the future fuel for Big Bend Station to be coal, which necessitated the installation of cost-effective SCR technology on the generating units to meet NO_x emissions requirements. Therefore, this project was a necessary precursor to an SCR system designed to reduce inlet NO_x concentrations to the SCR system thereby mitigating overall capital and O&M costs. The Big Bend Unit 3 Pre-SCR technologies included a neutral network system, secondary air controls, windbox modifications and primary coal/air flow controls.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $276,243 compared to the original projection of $277,035, resulting in an insignificant variance.

The actual/estimated O&M for the period January 2016 through December 2016 is $1,540 compared to the original projection of $42,000, resulting in a variance of 96.3 percent. The company burned less coal at Big Bend Unit 3 than projected, eliminating the need for much of the maintenance on this unit.

Progress Summary: This project was approved by the Commission in Docket No. 040750-EI, Order No. PSC-04-1080-CO-EI, issued November 4, 2004. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $266,918.

Estimated O&M costs for the period of January 2017 through December 2017 is are projected to be $37,200

Tampa Electric Company
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Project Title: Clean Water Act Section 316(b) Phase II Study

Project Description:

This project was a direct requirement from the EPA to reduce impingement and entrainment of aquatic organisms related to the withdrawal of waters for cooling purposes through cooling water intake structures. The Phase II Rule requires that power plants meeting certain criteria to comply with national performance standards for impingement and entrainment. Accordingly, Tampa Electric must develop its compliance strategies for its H. L. Culbreath Bayside Power and the Big Bend Power Stations and then submit these strategies for approval through a Comprehensive Demonstration Study to the FDEP.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated O&M for the period January 2016 through December 2016 is $379,154 compared to the original projection of $960,000, resulting in a variance of 60.5 percent. This variance is due to uncertainty associated with the compliance strategy as a result of the stay of the Clean Power Plan.

Progress Summary: This project was approved by the Commission in Docket No. 041300-EI, Order No. PSC-05-0164-PAA-EI, issued February 10, 2005. The project is complete and in-service.

Projections: Estimated O&M costs for the period January 2017 through December 2017 are projected to be $948,000.

Tampa Electric Company
Environmental Cost Recovery Clause
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Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend Unit 1 SCR

Project Description:

In order to meet the requirements of the FDEP Consent Final Judgment and the EPA Consent Decree, Tampa Electric was required to make additional reductions of NO_x emissions at Big Bend Station on a per unit basis at prescribed times from 2016 through 2017. Based on a comprehensive study, Tampa Electric declared the future fuel for Big Bend Station to be coal, which necessitated the installation of cost-effective SCR technology on the generating units to meet NO_x emissions requirements.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $9,305,488 compared to the original projection of $9,329,944, resulting in an insignificant variance.

The actual/estimated O&M for the period January 2016 through December 2016 is $1,342,360 compared to the original projection of $2,025,000, resulting in a variance of 33.7 percent. This variance was caused by the company burning more natural gas and less coal than projected. The reduction in the amount of coal burned reduces costs since less consumables and maintenance are needed.

Progress Summary: This project was approved by the Commission in Docket No. 041376-EI, Order No. PSC-05-0616-CO-EI, issued June 3, 2005. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $8,949,332.

Estimated O&M costs for the period January 2017 through December 2017 are projected to be $1,771,104.

Tampa Electric Company
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Project Title: Big Bend Unit 2 SCR

Project Description:

In order to meet the requirements of the FDEP Consent Final Judgment and the EPA Consent Decree, Tampa Electric was required to make additional reductions of NO_x emissions at Big Bend Station on a per unit basis at prescribed times from 2016 through 2017. Based on a comprehensive study, Tampa Electric declared the future fuel for Big Bend Station to be coal, which necessitated the installation of cost-effective SCR technology on the generating units to meet NO_x emissions requirements.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $9,958,692 compared to the original projection of $9,982,742, resulting in an insignificant variance.

The actual/estimated O&M for the period January 2016 through December 2016 is $1,131,428 compared to the original projection of $1,613,000, resulting in a variance of 29.9 percent. This variance is due to burning more natural gas and less coal than projected. The reduction in the amount of coal burned reduces the amount of consumables and maintenance needed.

Progress Summary: This project was approved by the Commission in Docket No. 041376-EI, Order No. PSC-05-0616-CO-EI, issued June 3, 2005. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $9,600,999.

Estimated O&M costs for the period January 2017 through December 2017 are projected to be $2,076,788.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2017 through December 2017
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend Unit 3 SCR

Project Description:

In order to meet the requirements of the FDEP Consent Final Judgment and the EPA Consent Decree, Tampa Electric was required to make additional reductions of NO_x emissions at Big Bend Station on a per unit basis at prescribed times from 2016 through 2017. Based on a comprehensive study, Tampa Electric declared the future fuel for Big Bend Station to be coal which necessitated the installation of cost-effective SCR technology on the generating units to meet NO_x emissions requirements.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $8,077,431 compared to the original projection of $8,205,136, resulting in an insignificant variance.

The actual/estimated O&M for the period January 2016 through December 2016 is $1,102,662 compared to the original projection of $2,032,000, resulting in a variance of 45.7 percent. The variance is due to burning more natural gas and less coal than projected. The reduction in the amount of coal burned reduces the amount of consumables and maintenance needed.

Progress Summary: This project was approved by the Commission in Docket No. 041376-EI, Order No. PSC-05-0616-CO-EI, issued June 3, 2005. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $7,888,405.

Estimated O&M costs for the period January 2017 through December 2017 are projected to be $1,865,423.

Tampa Electric Company
Environmental Cost Recovery Clause
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Project Title: Big Bend Unit 4 SCR

Project Description:

In order to meet the requirements of the FDEP Consent Final Judgment and the EPA Consent Decree, Tampa Electric was required to make additional reductions of NO_x emissions at Big Bend Station on a per unit basis at prescribed times from 2016 through 2017. Based on a comprehensive study, Tampa Electric declared the future fuel for Big Bend Station to be coal which necessitated the installation of cost-effective SCR technology on the generating units to meet NO_x emissions requirements.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $6,357,967 compared to the original projection of $6,220,630, resulting in an insignificant variance.

The actual/estimated O&M for the period January 2016 through December 2016 is $1,210,427 compared to the original projection of $2,070,000, resulting in a variance of 41.5 percent. The variance is due to burning more natural gas and less coal than projected. The reduction in the amount of coal burned reduces the amount of consumables and maintenance needed.

Progress Summary: This project was approved by the Commission in Docket No. 040750-EI, Order No. PSC-04-0986-PAA-EI, issued October 11, 2004. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $6,171,115.

Estimated O&M costs for the period January 2017 through December 2017 are projected to be $1,086,684.

Tampa Electric Company
Environmental Cost Recovery Clause
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Project Title: Arsenic Groundwater Standard Program

Project Description:
The Arsenic Groundwater Standard Program that is required by the Environmental Protection Agency and the Department of Environmental Protection became effective January 1, 2005. It requires regulated entities of the State of Florida to monitor the drinking water and groundwater Maximum Contaminant Level ("MCL") for arsenic under the federal rule known as the Safe Drinking Water Act.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated O&M for the period January 2016 through December 2016 is $14,722 compared to the original projection of $25,000, resulting in a variance of 41.1 percent. This variance is due to ongoing negotiations with the FDEP regarding ground water treatment at Bayside Station.

Progress Summary: This project was approved by the Commission in Docket No. 050683-EI, Order No. PSC-06-0138-PAA-EI, issued February 23, 2006. The project is complete and in-service.

Projections: Estimated O&M costs for the period January 2017 through December 2017 are projected to be $25,000.

Tampa Electric Company
Environmental Cost Recovery Clause
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Project Title: Big Bend Flue Gas Desulfurization ("FGD") System Reliability

Project Description:
The Big Bend FGD Reliability project is necessary to maintain the FGD system operations that are required by the Consent Decree. Tampa Electric is required to operate the FGD systems at Big Bend Station whenever coal is combusted in the units with few exceptions. The compliance dates for the strictest operational characteristics were January 1, 2011 for Big Bend Unit 3 and January 1, 2014 for Big Bend Units 1 and 2.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $2,467,204 compared to the original projection of $2,475,342, resulting in an insignificant variance.

Progress Summary: This project was approved by the Commission in Docket No. 050598-EI, Order No. PSC-06-0602-PAA-EI, issued July 10, 2006. The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $2,404,002.

Tampa Electric Company
Environmental Cost Recovery Clause
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Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Mercury Air Toxics Standards (“MATS”)

Project Description:
In March 2005, the Environmental Protection Agency (“EPA”) promulgated the Clean Air Mercury Rule (“CAMR”) and was later challenged in court. On February 8, 2008, the Circuit Court of Appeals for the District of Columbia vacated CAMR and ordered a new rule by March 2011. On December 11, 2011, the EPA issued a final version of the rule that applies to all coal and oil-fired electric generating units with a capacity of 25 MW or more and with a compliance deadline is April 16, 2015. The rule sets forth hazardous air pollutant standards (“HAP”) for mercury, non-mercury metal HAPs and acid gasses.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $961,360 compared to the original projection of $979,876 resulting in an insignificant variance.

The actual/estimated O&M for the period January 2016 through December 2016 is $129,466 compared to the original projection of $230,000, resulting in a variance of 43.7 percent. This variance is due to Tampa Electric using internal labor resources for stack testing. The original projection included costs for contract labor to complete testing.

Progress Summary: This project was approved by the Commission in Docket No. 120302-EI, Order No. PSC-13-0191-PAA-EI, issued May 6, 2013. This project, in total, is expected to be placed in-service by April 2015.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $941,252.

Estimated O&M costs for the period January 2017 through December 2017 are projected to be $231,000.

Tampa Electric Company
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Project Title: Greenhouse Gas Reduction Program

Project Description:
On September 22, 2009, the EPA enacted a new rule for reporting Greenhouse Gas ("GHG") emissions from large sources and suppliers effective January 1, 2010 in preparation for the first annual GHG report, due March 31, 2011. The new rule is intended to collect accurate and timely emissions data to inform future policy decisions as set forth in the final rule for GHG emission reporting pursuant to the Florida Climate Protection Act, Chapter 403.44 of the Florida Statutes and the docket EPA-HQ-OAR2008-0508-054. The nationwide GHG emissions reduction rule will impact Tampa Electric's generation fleet, components of its transmission and distribution system as well as company service vehicles. According to the rule, the company began collecting greenhouse gas emissions data effective January 1, 2010 to establish a baseline inventory to report to the EPA.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated O&M for the period January 2016 through December 2016 is $90,000, and did not vary from the original projection.

Progress Summary: This project was approved by the Commission in Docket No. 090508-EI, Order No. PSC-10-0157-PAA-EI, issued March 22, 2010. The project is complete and in-service.

Projections: Estimated O&M costs for the period January 2017 through December 2017 are projected to be $90,000.

Tampa Electric Company
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Project Title: Big Bend Gypsum Storage Facility

Project Description:

The Big Bend New Gypsum Storage Facility is necessary to maintain the FGD system operations that are required by the Consent Decree. Tampa Electric is required to operate the FGD systems in order to comply with the CAAA. Gypsum is a by-product of the FGD operations and Tampa Electric had been managing its gypsum inventory through marketing efforts to sell gypsum an existing storage facility. However, the existing storage facility is no longer sufficient to hold the entire gypsum inventory. As such, Tampa Electric needed an additional storage facility that will allow the company to continue managing its gypsum inventory while continuing its marketing efforts to sell the gypsum. The new storage facility will cover approximately 27 acres and will hold approximately 870,000 tons of gypsum.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $2,454,374 compared to the original projection of $2,442,426, resulting in an insignificant variance.

The actual/estimated O&M for the period January 2016 through December 2016 is $961,174 compared to the original projection of $900,000, resulting in an insignificant variance.

Progress Summary: This project was approved by the Commission in Docket No. 110262-EI, Order No. PSC-12-0493-PAA-EI, issued September 26, 2012. The project was placed in-service in November 2014.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $2,394,964.

Estimated O&M costs for the period January 2017 through December 2017 are projected to be $1,200,000.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2017 through December 2017
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Coal Combustion Residuals ("CCR")

Project Description:

On April 17, 2015, the EPA published the CCR rule with an effective date of October 19, 2015. The new rule requires the safe disposal of CCR in landfills and surface impoundments. Tampa Electric's Big Bend Power Station will be required to begin compliance with the CCR. Compliance activities include placing fugitive emissions dust control plans as well as increasing inspections and installing new groundwater monitoring wells at CCR regulated management units.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2016 through December 2016 is $2,722. This project was not included in the 2016 projection.

The actual/estimated O&M for the period January 2016 through December 2016 is $445,038. This project was not included in the 2016 projection.

Progress Summary: This project was approved by the Commission in Docket No. 150223-EI, Order No. PSC-16-0068-PAA-EI, issued February 9, 2016.

Projections: Estimated depreciation plus return for the period January 2017 through December 2017 is projected to be $270,633.

Estimated O&M costs for the period January 2017 through December 2017 are projected to be $3,700,000.

<u>Tampa Electric Company</u>
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Project Title: Effluent Limitation Guidelines ("ELG")

Project Description:

On November 3, 2015, the EPA published the ELG with an effective date of January 4, 2016. The ELG establish limits for wastewater discharges from flue gas desulfurization ("FGD") processes, fly ash and bottom ash transport water, leachate from ponds and landfills containing coal combustion residuals ("CCR"), gasification processes, and flue gas mercury controls. The final rule requires compliance as soon as possible after November 1, 2018, and no later than December 31, 2023. In order to optimize the efficiency of Tampa Electric's ELG compliance efforts in the most cost-effective manner, the company will hire an experienced engineering consulting firm to perform a Big Bend ELG Compliance Study, to be conducted during 2016 and 2017, concluding with a determination of the most appropriate ELG compliance measures identified through the study

Project Accomplishments:

Fiscal Expenditures: The actual/estimated O&M for the period January 2016 through December 2016 is $302,500. This project was not included in the 2016 projection.

Progress Summary: This project was approved by the Commission in Docket No. 160027-EI, Order No. PSC-16-0248-PAA-EI, issued June 28, 2016.

Projections: Estimated O&M costs for the period January 2017 through December 2017 are projected to be $50,000.

Form 42 - 6P

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Energy & Demand Allocation % By Rate Class
January 2017 to December 2017

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Rate Class	Average 12 CP Load Factor at Meter (%)	Projected Sales at Meter (MWh)	Effective Sales at Secondary Level (MWh)	Projected Avg 12 CP at Meter (MW)	Demand Loss Expansion Factor	Energy Loss Expansion Factor	Projected Sales at Generation (MWh)	Projected Avg 12 CP at Generation (MW)	Percentage of MWh Sales at Generation (%)	Percentage of 12 CP Demand at Generation (%)	12 CP & 1/13 Allocation Factor (%)
RS	53.13%	8,934,018	8,934,018	1,919	1.07835	1.05122	9,391,609	2,070	46.88%	56.84%	56.07%
GS, TS	62.24%	1,001,850	1,001,850	184	1.07835	1.05120	1,053,149	198	5.26%	5.44%	5.43%
GSD, SBF	76.90%	8,055,479	8,041,752	1,196	1.07384	1.04767	8,439,502	1,284	42.13%	35.26%	35.79%
IS	128.17%	908,781	892,917	81	1.02975	1.01779	924,945	83	4.62%	2.28%	2.46%
LS1	354.65%	213,951	213,951	7	1.07835	1.05122	224,909	7	1.12%	0.19%	0.26%
TOTAL *		19,114,079	19,084,488	3,387			20,034,114	3,642	100.00%	100.00%	100.00%

Notes:
(1) Average 12 CP load factor based on 2017 Projected calendar data
(2) Projected MWh sales for the period January 2017 to December 2017
(3) Effective sales at secondary level for the period January 2017 to December 2017.
(4) Column 2 / (Column 1 x 8760)
(5) Based on 2017 projected demand losses.
(6) Based on 2017 projected energy losses.
(7) Column 2 x Column 6
(8) Column 4 x Column 5
(9) Column 7 / Total Column 7
(10) Column 8 / Total Column 8
(11) Column 9 x 1/13 + Column 10 x 12/13

* Totals on this schedule may not foot due to rounding

Form 42 - 7P

Tampa Electric Company

Environmental Cost Recovery Clause (ECRC)

Calculation of the Energy & Demand Allocation % By Rate Class

January 2017 to December 2017

Rate Class	(1) Percentage of MWh Sales at Generation (%)	(2) 12 CP & 1/13 Allocation Factor (%)	(3) Energy-Related Costs ($)	(4) Demand-Related Costs ($)	(5) Total Environmental Costs ($)	(6) Projected Sales at Meter (MWh)	(7) Effective Sales at Secondary Level (MWh)	**(8) Environmental Cost Recovery Factors (¢/kWh)**
RS	46.88%	56.07%	33,980,433	744,614	34,725,047	8,934,018	8,934,018	**0.389**
GS, TS	5.26%	5.43%	3,812,651	72,111	3,884,762	1,001,850	1,001,850	**0.388**
GSD, SBF	42.13%	35.79%	30,537,450	475,294	31,012,744	8,055,479	8,041,752	
Secondary								**0.386**
Primary								**0.382**
Transmission								**0.378**
IS	4.62%	2.46%	3,348,754	32,669	3,381,423	908,781	892,917	
Secondary								**0.379**
Primary								**0.375**
Transmission								**0.371**
LS1	1.12%	0.26%	811,819	3,453	815,272	213,951	213,951	**0.381**
TOTAL *	100.00%	100.00%	$72,483,859	$1,328,008	$73,811,867	19,114,079	19,084,488	**0.387**

* Totals on this schedule may not foot due to rounding

Notes:

(1) From Form 42-6P, Column 9
(2) From Form 42-6P, Column 11
(3) Column 1 x Total Energy Jurisdictional Dollars from Form 42-1P, line 5
(4) Column 2 x Total Demand Jurisdictional Dollars from Form 42-1P, line 5
(5) Column 3 + Column 4
(6) From Form 42-6P, Column 2
(7) From Form 42-6P, Column 3
(8) Column 5 / Column 7 x 10

DOCKET NO. 160007-EI
ECRC 2017 PROJECTION, FORM 42-7P
EXHIBIT NO. PAR-3, DOCUMENT NO. 7

Form 42 - 8P

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Current Period Actual / Estimated Amount
January 2017 to December 2017

Calculation of Revenue Requirement Rate of Return
(In Dollars)

	(1) Jurisdictional Rate Base *Actual May 2016* ($000)	(2) Ratio %	(3) Cost Rate %	(4) Weighted Cost Rate %
Long Term Debt	$ 1,548,383	35.17%	5.17%	1.82%
Short Term Debt	25,435	0.58%	0.90%	0.01%
Preferred Stock	0	0.00%	0.00%	0.00%
Customer Deposits	106,847	2.43%	2.29%	0.06%
Common Equity	1,847,526	41.96%	10.25%	4.30%
Deferred ITC - Weighted Cost	7,686	0.17%	7.89%	0.01%
Accumulated Deferred Income Taxes & Zero Cost ITCs	866,653	19.69%	0.00%	0.00%
Total	$ 4,402,530	100.00%		6.20%

ITC split between Debt and Equity:

Long Term Debt	$ 1,548,383	Long Term Debt	45.26%
Short Term Debt	25,435	Short Term Debt	0.74%
Equity - Preferred	0	Equity - Preferred	0.00%
Equity - Common	1,847,526	Equity - Common	54.00%
Total	$ 3,421,345	Total	100.00%

Deferred ITC - Weighted Cost:

Debt = .0100% * 46.00%	0.0046%
Equity = .0100% * 54.00%	0.0054%
Weighted Cost	0.0100%

Total Equity Cost Rate:

Preferred Stock	0.0000%
Common Equity	4.3000%
Deferred ITC - Weighted Cost	0.0054%
	4.3054%
Times Tax Multiplier	1.632200
Total Equity Component	7.0273%

Total Debt Cost Rate:

Long Term Debt	1.8200%
Short Term Debt	0.0100%
Customer Deposits	0.0600%
Deferred ITC - Weighted Cost	0.0046%
Total Debt Component	1.8946%
	8.9219%

Notes:
Column (1) - Per WACC Stipulation & Settlement Agreement Dated July 17, 2012, and 2013 Base Rates Settlement Agreement Dated September 6, 2013.
Column (2) - Column (1) / Total Column (1)
Column (3) - Per WACC Stipulation & Settlement Agreement Dated July 17, 2012, and 2013 Base Rates Settlement Agreement Dated September 6, 2013.
Column (4) - Column (2) x Column (3)

TECO
TAMPA ELECTRIC
AN EMERA COMPANY

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 160007-EI

ENVIRONMENTAL COST RECOVERY FACTORS

PROJECTIONS

JANUARY 2017 THROUGH DECEMBER 2017

TESTIMONY

OF

PAUL L. CARPINONE

FILED: SEPTEMBER 1, 2016

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

PREPARED DIRECT TESTIMONY

OF

PAUL CARPINONE

Q. Please state your name, address, occupation and employer.

A. My name is Paul L. Carpinone. My business address is 702 North Franklin Street, Tampa, Florida 33602. I am employed by Tampa Electric Company ("Tampa Electric" or "company") as Director, Environmental Health & Safety in the Environmental Health and Safety Department.

Q. Please provide a brief outline of your educational background and business experience.

A. I received a Bachelor of Science degree in Water Resources Engineering Technology from the Pennsylvania State University in 1978. I have been a Registered Professional Engineer in the states of Florida and Pennsylvania since 1984. Prior to joining Tampa Electric, I worked for Seminole Electric Cooperative as a Civil Engineer in various positions and in environmental consulting. In February 1988, I joined Tampa Electric as a Principal Engineer, and I have primarily worked in the area of Environmental Health and Safety. In 2006, I became Director of Environmental Health and Safety. My responsibilities include the development and administration of the company's environmental, health and safety policies and goals. I am also responsible for ensuring resources, procedures and programs meet or surpass compliance with applicable environmental, health and safety requirements, and that rules and policies are in place and functioning appropriately and consistently throughout the company.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to demonstrate that the activities for which Tampa Electric seeks cost recovery through the Environmental Cost Recovery Clause ("ECRC") for the January 2017 through December 2017 projection period are activities necessary for the company to comply with various environmental requirements. Specifically, I will describe the ongoing activities related to programs previously approved by the Commission for recovery through the ECRC.

Q. Please provide an overview of the environmental compliance requirements that are the result of the Consent Final Judgment ("CFJ") entered into with the Florida Department of Environmental Protection ("FDEP") and the Consent Decree ("CD") lodged with the U.S. Environmental Protection Agency ("EPA") and the Department of Justice ("the Orders").

A. The general requirements of the Orders provide for further reductions of sulfur dioxide ("SO_2"), particulate matter ("PM") and nitrogen oxides ("NO_x") emissions at Big Bend Station. Tampa Electric has implemented the requirements of the Orders, and now these agreements have been terminated by the corresponding court systems. The ongoing requirements of these projects, which are further described later in my testimony, are now part of the Big Bend Title V operating permit (0570039-083-AV). The projects that are now required under the operating permit are listed below.

- Big Bend PM Minimization Program
- Big Bend NOx Emission Reduction Program
- Big Bend Units 1 – 3 Pre-Selective Catalytic Reduction ("SCR") Projects
- Big Bend Units 1 – 4 SCR Projects

Q. Does the termination of the Orders change any of the environmental compliance requirements applicable to the company's generating units?

A. No, the termination of the Orders does not change any of the environmental compliance requirements applicable to the company's generating units. The requirements of the Orders are now part of the Title V operating permit.

Q. Please describe the Big Bend PM Minimization and Monitoring program activities and provide the estimated capital and O&M expenditures for the period of January 2017 through December 2017.

A. The Big Bend PM Minimization and Monitoring program was approved by the Commission in Docket No. 001186-EI, Order No. PSC-00-2104-PAA-EI, issued November 6, 2000. In the Order, the Commission found that the program met the requirements for recovery through the ECRC. Tampa Electric had previously identified various projects to improve precipitator performance and reduce PM emissions as required by the Orders. Tampa Electric does not anticipate any capital expenditures for this program during 2017; however, the O&M expenses associated with existing and recently installed BOP and BACT equipment and continued implementation of the BOP procedures are expected to be $611,283.

Q. Please describe the Big Bend NO_x Emission Reduction program activities and provide the estimated capital and O&M expenses for the period of January 2017 through December 2017.

A. The Big Bend NO_x Emission Reduction program was approved by the Commission in Docket No. 001186-EI, Order No. PSC-00-2104-PAA-EI, issued November 6, 2000. In the Order, the Commission found that the program met the requirements for recovery through the ECRC. Tampa Electric does not anticipate any capital expenditures in 2017; however, the company will perform maintenance on the previously approved and installed NO_x reduction equipment. This activity is expected to result in approximately $100,000 of O&M expenses during 2017.

Q. Please describe the Big Bend Units 1 through 3 Pre-SCR and the Big Bend Units 1 through 4 SCR projects and provide estimated capital and O&M expenditures for the period of January 2017 through December 2017.

A. In Docket No. 040750-EI, Order No. PSC-04-0986-PAA-EI, issued October 11, 2004, the Commission approved cost recovery of the Big Bend Units 1 through 3 Pre-SCR and the Big Bend Unit 4 SCR projects. The Big Bend Units 1 through 3 SCR projects were approved by the Commission in Docket

No. 041376-EI, Order No. PSC-05-0502-PAA-EI, issued May 9, 2005. The purpose of the Pre-SCR technologies is to reduce inlet NO_x concentrations to the SCR systems, thereby mitigating overall SCR capital and O&M costs. These Pre-SCR technologies include windbox modifications, secondary air controls and coal/air flow controls. The SCR projects at Big Bend Units 1 through 4 encompass the design, procurement, installation and annual O&M expenses associated with an SCR system for each unit. The SCRs for Big Bend Units 1 through 4 were placed in-service April 2010, September 2009, July 2008 and May 2007, respectively.

For the period of January 2017 through December 2017, there are not any capital expenditures anticipated for the Big Bend Units 1 through 3 Pre-SCR projects. The O&M expenditures for Big Bend Pre-SCR projects are projected to be $37,200 for Big Bend Unit 1 Pre-SCR, $37,200 for Big Bend Unit 2 Pre-SCR and $37,200 for Big Bend Unit 3 Pre-SCR for equipment maintenance. There are not any anticipated capital expenditures for Big Bend Units 1, 2, and 4 SCRs. The capital expenditures for the Big Bend Unit 3 SCR are projected to be $800,382 for a catalyst replacement. Additionally, the 2017 SCR O&M expenses are projected to be $1,771,104 for Big Bend Unit 1 SCR, $2,076,788 for Big Bend Unit 2 SCR, $1,865,423 for Big Bend Unit 3 SCR and

$1,086,684 for Big Bend Unit 4 SCR. These expenses are primarily associated with ammonia purchases.

Q. Please identify and describe the other Commission-approved programs you will discuss.

A. The programs previously approved by the Commission that I will discuss include the following projects:

1) Big Bend Unit 3 Flue Gas Desulfurization ("FGD") Integration
2) Big Bend Units 1 and 2 FGD
3) Gannon Thermal Discharge Study
4) Bayside SCR Consumables
5) Clean Water Act Section 316(b) Phase II Study
6) Big Bend FGD System Reliability
7) Arsenic Groundwater Standard
8) Mercury and Air Toxics Standards ("MATS")
9) Greenhouse Gas ("GHG") Reduction Program
10) Big Bend Gypsum Storage Facility
11) Coal Combustion Residuals ("CCR")
12) Effluent Limitation Guidelines ("ELG")

Q. Please describe the Big Bend Unit 3 FGD Integration and the Big Bend Units 1 and 2 FGD activities and provide the estimated capital and O&M expenditures for the period of

January 2017 through December 2017.

A. The Big Bend Unit 3 FGD Integration program was approved by the Commission in Docket No. 960688-EI, Order No. PSC-96-1048-FOF-EI, issued August 14, 1996. The Big Bend Units 1 and 2 FGD program was approved by the Commission in Docket No. 980693-EI, Order No. PSC-99-0075-FOF-EI, issued January 11, 1999. In those Orders, the Commission found that the programs met the requirements for recovery through the ECRC. The programs were implemented to meet the SO_2 emission requirements of the Phase I and II Clean Air Act Amendments ("CAAA") of 1990.

The company does not anticipate any capital expenditures during January 2017 through December 2017 for the Big Bend Unit 3 FGD Integration project; however, O&M expenses are projected to be $5,539,740 for consumables, primarily anhydrous ammonia, and ongoing maintenance. There are not any anticipated capital expenditures for the Big Bend Units 1 & 2 FGD project during January 2017 through December 2017. O&M expenses are projected to be $9,108,893 for consumables, primarily anhydrous ammonia, and ongoing maintenance.

Q. Please describe the Gannon Thermal Discharge Study program activities and provide the estimated O&M expenditures for the period of January 2017 through December 2017.

A. The Gannon Thermal Discharge Study program was approved by the Commission in Docket No. 010593-EI, Order No. PSC-01-1847-PAA-EI, issued September 14, 2001. In that Order, the Commission found that the program met the requirements for recovery through the ECRC. For the period of January 2017 through December 2017, there are not any projected O&M expenditures for this program. In the intent to issue the permit renewal, dated August 9, 2013, FDEP indicated that the proposed NPDES permit authorizes a thermal variance under 316(a) for the permit period. The company anticipates that an additional study will not be required.

Q. Please describe the Bayside SCR Consumables program activities and provide the estimated O&M expenditures for the period of January 2017 through December 2017.

A. The Bayside SCR Consumables program was approved by the Commission in Docket No. 021255-EI, Order No. PSC-03-0469-PAA-EI, issued April 4, 2003. For the period of January 2017 through December 2017, Tampa Electric projects O&M expenses associated with the consumable goods (primarily anhydrous ammonia) to be approximately $204,000 for the period.

Q. Please describe the Clean Water Act Section 316(b) Phase II Study program activities and provide the estimated O&M expenditures for the period of January 2017 through December 2017.

A. The Clean Water Act Section 316(b) Phase II Study program was approved by the Commission in Docket No. 041300-EI, Order No. PSC-05-0164-PAA-EI, issued February 10, 2005. The final rule adopted under Section 316(b), the Cooling Water Intake Structures ("CWIS") Rule, became effective October 14, 2014. Tampa Electric is currently finalizing its compliance strategy for the CWIS Rule and is working with the regulating authority to determine the need and scheduling for biological, financial and technical study elements necessary to comply with the rule. These elements will ultimately be used by the regulating authority to determine the necessity of cooling water system retrofits for Big Bend and Bayside Power Stations. Retrofits could include the installation of cooling towers or screening facilities. Tampa Electric projects O&M expenditures to be $948,000 for the period January 2017 through December 2017 for engineering studies.

Q. Please describe the Big Bend FGD System Reliability program activities and provide the estimated capital expenses for the period of January 2017 through December 2017.

A. Tampa Electric's Big Bend FGD System Reliability program was approved by the Commission in Docket No. 050598-EI, Order No. PSC-06-0602-PAA-EI, issued July 10, 2006. The Commission granted cost recovery approval for prudent costs associated with this project. The Big Bend FGD System Reliability project has been running concurrently with the installation of SCR systems on the generating units. For the period of January 2017 through December 2017, there are not any anticipated capital expenditures for this project.

Q. Please describe the Arsenic Groundwater Standard program activities and provide the estimated O&M expenditures for the period of January 2017 through December 2017.

A. The Arsenic Groundwater Standard program was approved by the Commission in Docket No. 050683-EI, Order No. PSC-06-0138-PAA-EI, issued February 23, 2006. In that Order, the Commission found that the program met the requirements for recovery through the ECRC and granted Tampa Electric cost recovery approval for prudently incurred costs. The new groundwater standard applies to Tampa Electric's H.L. Culbreath Bayside, Big Bend and Polk Power Stations.

For the period of January 2017 through December 2017, Tampa Electric projects O&M expenses associated with the sampling activities to be approximately $25,000.

Q. Please describe the MATS program activities.

A. The MATS program was approved by the Commission in Docket No. 120302-EI, Order No. PSC-13-0191-PAA-EI, issued May 6, 2013. In that Order, the Commission found that the program met the requirements for recovery through the ECRC and granted Tampa Electric cost recovery approval for prudently incurred costs. Additionally, the Commission granted the subsumption of the previously approved CAMR program into the MATS program.

On February 8, 2008, the Washington D.C. Circuit Court vacated EPA's rule removing power plants from the Clean Air Act list of regulated sources of hazardous air pollutants under section 112. At the same time, the Court vacated the Clean Air Mercury Rule. On May 3, 2011, the EPA published a new proposed rule for mercury and other hazardous air pollutants according to the National Emissions Standards for Hazardous Air Pollutants section of the Clean Air Act. On February 16, 2012, the EPA published the final rule for MATS. The rule revised the mercury limits and provided more flexible monitoring and recordkeeping requirements. Additionally, monitoring of acid gases and particulate matter will be required. Compliance with the rule began on April 16, 2015. Tampa Electric is currently meeting or exceeding the standards required by the MATS rule for mercury, particulate matter, and acid gases at Polk Power Station and Big Bend Power Station.

Q. Please provide the MATS program estimated capital and O&M expenditures for the period January 2017 through December 2017.

A. For 2017, Tampa Electric anticipates capital expenditures of $160,000 under the MATS program for monitoring equipment. O&M expenditures are projected to be $231,000 for testing requirements and maintenance of equipment.

Q. Please describe the GHG Reduction Program activities and provide the estimated capital and O&M expenditures for the period of January 2017 through December 2017.

A. Tampa Electric's GHG Reduction Program approved by the Commission in Docket No. 090508-EI, Order No. PSC-10-0157-PPA-EI, issued March 22, 2010, is a result of the EPA's Mandatory Reporting Rule requiring annual reporting of greenhouse gas emissions. Tampa Electric was required to report greenhouse gas emissions to the EPA for the first time in 2011. Reporting for the EPA's Greenhouse Gas Mandatory Reporting Rule will continue in 2017. For 2017, this activity is projected to result in approximately $90,000 of O&M expenditures.

Q. Please describe the Big Bend Gypsum Storage Facility activities and provide the estimated capital and O&M expenditures for the period of January 2017 through December 2017.

A. The Big Bend Gypsum Storage Facility program was approved by the Commission in Docket No. 110262-EI, Order No. 12-0493-PAA-EI, issued September 26, 2012. In that Order, the Commission found that the program meets the requirements for recovery through the ECRC. The project was placed in-service in November 2014. For 2017, Tampa Electric does not anticipate any capital expenditures; however, projected O&M expenses for this program during 2017 are $1,200,000.

Q. Please describe the EPA Coal Combustion Residuals ("CCR") Rule compliance activities and provide the estimated capital and O&M expenditures for the period of January 2017 through December 2017.

A. On April 17, 2015, EPA issued a final rule to regulate coal combustion residuals ("CCRs") as nonhazardous waste under Subtitle D of the Resource Conservation and Recovery Act ("RCRA"). The rule, which became effective on October 19, 2015, covers all operational CCR disposal facilities, as well as inactive impoundments which contain CCRs and liquids. The Big Bend Unit 4 Economizer Ash Ponds and the East Coalfield Stormwater Pond (converted former slag fines pond), will be regulated under the rule, at a minimum.

The CCR program was approved by the Commission in Order No. PSC-16-0094-PAA-EI issued on February 9, 2016, in Docket No. 150223-EI. In that Order, the Commission found that the program meets the requirements for recovery through the ECRC. Incremental O&M expenses resulting from the groundwater monitoring program, ongoing inspections and general maintenance of regulated units will continue throughout 2017 and beyond. In order to determine the best option to comply with the new rule, the company evaluated whether to continue operation of the regulated impoundments or to close them.

The impoundments for which closure will commence in 2017 are the North and South Economizer Ash Impoundments and the Slag Pond, for which engineering and scope studies are in progress. These closure projects are now scheduled to begin concurrently in 2017 to avoid compliance-related O&M costs and to yield efficiencies in the engineering and construction of these projects. The cost estimates provided for the closures are based on the clean closure option allowed by the rule and therefore include O&M costs for disposal of CCRs excavated from these impoundments.

In addition, ongoing compliance evaluations of FGD operations at Big Bend Station have revealed that additional work must be done at the North Gypsum Stackout area, another area where CCRs are managed on site at the station. The supplemental work includes drainage improvements and secondary containment in the main storage area, as well as additional remediation and improvements to line the adjacent unlined ditches and ponds. This work is needed to make the FGD operations fully compliant with the CCR Rule requirements.

Tampa Electric anticipates $6,350,000 for capital expenditures and $3,700,000 for O&M expenditures for the projects described above. However, engineering of these projects will include more detailed cost evaluations, and these projections will be refined upon completion of the evaluations.

Q. Please describe Tampa Electric's Effluent Limitation Guidelines activities and provide the estimated O&M expenditures for the period January 2017 through December 2017.

A. On November 3, 2015 the EPA published the final Steam Electric Power Generating Effluent Limitations Guidelines, with an effective date of January 4, 2016. The ELG establish limits for wastewater discharges from FGD processes, fly ash and bottom ash transport water, leachate from ponds and landfills containing CCR, gasification processes, and flue gas mercury controls. Big Bend Station's FGD system is affected by this rule. The blow-down stream from the FGD System is currently sent to a physical chemical treatment system to remove solids, some metals, ammonia and adjust pH prior to discharge to Tampa Bay via the once-through condenser cooling system water. This treatment system will need to be modified or replaced in order to achieve compliance with the new EPA regulations. The rule requires compliance after November 1, 2018, but no later than December 31, 2023.

The ELG project was approved by the Commission in Order No. PSC-16-0248-PAA-EI issued on June 28, 2016, in Docket No. 160027-EI. In that Order, the Commission found that the program meets the requirements for recovery through the ECRC. Tampa Electric projects O&M expenditures for the period January 2017 through December 2017 to be $50,000 for front-end engineering and design of the technology selected in the feasibility study.

Q. Please summarize your testimony.

A. Tampa Electric's settlement agreements with FDEP and EPA required significant reductions in emissions from Tampa Electric's Big Bend and Gannon Stations have been terminated due to the company having satisfied all requirements as set forth by the CFJ and CD. Ongoing requirements for projects originating with the CFJ and CD are have been incorporated into Big Bend's Title V Operating Permit (0570039-083-AV) and are discussed throughout my testimony. I described the progress Tampa Electric has made to achieve the more stringent environmental standards. I identified estimated costs, by project, which the company expects to incur in 2017. Additionally, my testimony identified other projects that are required for Tampa Electric to meet environmental requirements, and I provided the associated 2017 activities and projected expenditures.

Q. Does this conclude your testimony?

A. Yes.