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September 1, 2017

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. 20170007-EI

Dear Ms. Stauffer:

Attached for filing in the above docket, on behalf of Tampa Electric Company, are 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 2017 to the following:

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ATTORNEY

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental Cost Recovery Clause.	)))	DOCKET NO. 20170007-EI FILED: September 1, 2017

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 2018 through December 2018, and in support thereof, says:

Environmental Cost Recovery

1. Tampa Electric's final true-up amount for the period January 2016 through December 2016 is an under-recovery of $658,080. [See Exhibit No. PAR-1, Document No. 1 (Schedule 42-1A).]

2. Tampa Electric projects an actual/estimated true-up amount for the January 2017 through December 2017 period, which is based on actual data for the period January 1, 2017 through June 30, 2017 and revised estimates for the period July 1, 2017 through December 31, 2017, to be an over-recovery of $6,759,424. [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, 2018 through December 31, 2018, adjusted for taxes, is $66,767,920. When spread over projected kilowatt hour sales for the period January 1, 2018 through December 31, 2018, the average environmental cost recovery factor for the new period is 0.342 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 2018 through December 2018.

DATED this 1st day of September 2017.

Respectfully submitted,

JAMES D. BEASLEY
J. JEFFRY WAHLEN
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 2017 to the following:

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ATTORNEY

TECO
TAMPA ELECTRIC
AN EMERA COMPANY

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 20170007-EI

IN RE: TAMPA ELECTRIC'S ENVIRONMENTAL COST RECOVERY

PROJECTION

JANUARY 2018 THROUGH DECEMBER 2018

TESTIMONY AND EXHIBIT

OF

PENELOPE A. RUSK

FILED: SEPTEMBER 1, 2017

BEFORE THE FLORIDA 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. Have you previously filed testimony in Docket No. 20170007-EI?

A. Yes, I submitted direct testimony on April 3, 2017 and August 4, 2017.

Q. Has your job description, education, or professional experience changed since then?

A. No, it has not.

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 Environmental Cost Recovery Clause ("ECRC") factors for the period of January 2018 through December 2018. 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 & maintenance ("O&M") costs associated with environmental compliance activities for the year 2018.

Q. Have you prepared an exhibit that shows the determination of recoverable environmental costs for the period of January 2018 through December 2018?

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 the O&M and capital expenditures that support the development of the environmental cost recovery factors for 2018.

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 2018 through December 2018.

Q. What has Tampa Electric calculated as the net true-up to be applied in the period January 2018 to December 2018?

A. The net true-up applicable for this period is an over-recovery of $6,101,344. This consists of a final true up under-recovery of $658,080 for the period of January 2016 through December 2016 and an estimated true-up over-recovery of $6,759,424 for the current period of January 2017 through December 2017. 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, 2017.

Q. Did Tampa Electric include any new environmental compliance projects for ECRC cost recovery for the period from January 2018 through December 2018?

A. Yes, Tampa Electric included costs for the second phase of its compliance with the Coal Combustion Residual ("CCR") Rule, which were not included in its 2017 ECRC factors. The company submitted its petition for approval of the expected costs of the second phase of CCR Rule compliance on July 28, 2017.

Q. What are the existing capital projects included in the calculation of the ECRC factors for 2018?

A. Tampa Electric proposes to include for ECRC recovery the 26 previously approved capital projects and their projected costs in the calculation of the 2018 ECRC factors. These projects are listed below.

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 NOx 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) Big Bend Coal Combustion Residuals ("CCR") Rule

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

Q. Have you prepared schedules showing the calculation of the recoverable capital project costs for 2018?

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 results in recoverable jurisdictional capital costs of $50,713,229.

Q. What are the existing O&M projects included in the calculation of the ECRC factors for 2018?

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 2018. These projects are listed below.

1) Big Bend Unit 3 FGD Integration
2) Big Bend Units 1 and 2 Flue Gas Conditioning
3) SO_2 Emission Allowances
4) Big Bend Units 1 and 2 FGD
5) Big Bend PM Minimization and Monitoring
6) Big Bend NO_x Emissions Reduction
7) National Pollutant Discharge Elimination System ("NPDES") Annual Surveillance Fees
8) Gannon Thermal Discharge Study
9) Polk NO_x Emissions Reduction
10) Bayside SCR Consumables
11) Big Bend Unit 4 Separated Overfired Air ("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) Big Bend Coal Combustion Residuals
25) Big Bend 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 2018?

A. Yes. Form 42-2P contained in Exhibit No. PAR-3 summarizes the recoverable jurisdictional O&M costs for these projects which total $22,107,997 for 2018.

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 2018?

A. The total jurisdictional O&M and capital expenditures to be recovered through the ECRC are calculated on Form 42-1P. These expenditures total $72,821,226.

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 determined by calculating the percentage that each rate class contributes to the total MWH sales and then adjusted for line losses for each rate class. This information was based on applying historical rate class load research to the 2018 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 January 2018 through December 2018 which Tampa Electric is seeking approval?

A. The computation of billing factors is shown in Exhibit No. PAR-3, Document No. 7, Form 42-7P. The proposed ECRC billing factors are summarized below.

Rate Class	Factors by Voltage Level (¢/kWh)
RS Secondary	0.343
GS, CS Secondary	0.343
GSD, SBF	
Secondary	0.342
Primary	0.338
Transmission	0.335
IS	
Secondary	0.337
Primary	0.333
Transmission	0.330
LS1	0.339
Average Factor	0.342

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 2018.

Q. What capital structure, components and cost rates did Tampa Electric rely on to calculate the revenue requirement rate of return for January 2018 through December 2018?

A. Tampa Electric used the weighted average cost of capital methodology approved by the Commission in Order No. PSC-2012-0425-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 2018 through December 2018 consistent with the criteria established for ECRC recovery in Order No. PSC-1994-0044-FOF-EI?

A. Yes. The costs for which ECRC recovery 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 were based; and,
3) Such costs are not recovered through some other cost

recovery mechanism or through base rates.

Q. Please summarize your direct testimony.

A. My testimony supports the approval of a final average ECRC billing factor of 0.342 cents per kWh. This includes the projected capital and O&M revenue requirements of $72,821,226 associated with the company's 33 ECRC projects and a net true-up over-recovery provision of $6,101,344. My testimony also explains that the projected environmental expenditures for 2018 are appropriate for recovery through the ECRC.

Q. Does this conclude your direct testimony?

A. Yes, it does.

INDEX

ENVIRONMENTAL COST RECOVERY

COMMISSION FORMS

JANUARY 2018 THROUGH DECEMBER 2018

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

Form 42 - 1P

For the Projected Period
January 2018 to December 2018

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)	$21,752,497	$355,500	$22,107,997
b. Projected Capital Projects (Form 42-3P, Lines 7, 8 & 9)	50,394,171	319,058	50,713,229
c. Total Jurisdictional Revenue Requirements for the projected period (Lines 1a + 1b)	72,146,668	674,558	72,821,226
2. True-up for Estimated Over/(Under) Recovery for the current period January 2017 to December 2017 (Form 42-2E, Line 5 + 6 + 10)	6,696,041	63,383	6,759,424
3. Final True-up for the period January 2016 to December 2016 (Form 42-1A, Line 3)	(656,199)	(1,881)	(658,080)
4. Total Jurisdictional Amount to Be Recovered/(Refunded) in the projection period January 2018 to December 2018 (Line 1 - Line 2- Line 3)	66,106,826	613,056	66,719,882
5. Total Projected Jurisdictional Amount Adjusted for Taxes (Line 4 x Revenue Tax Multiplier)	$66,154,423	$613,497	$66,767,920

Form 42 - 2P

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2018 to December 2018

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	$368,061	$368,061	$368,061	$368,061	$368,061	$368,061	$368,061	$368,061	$368,061	$368,061	$368,066	$375,113	$4,423,789		$4,423,789
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	730	764	798	708	792	788	707	791	790	712	777	795	9,151		9,151
d.	Big Bend Units 1 & 2 FGD	183,332	183,332	183,332	183,332	183,332	183,332	183,332	183,332	183,332	183,332	183,340	183,340	2,200,000		2,200,000
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	38,956	138,956		138,956
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	1,666	1,665	1,664	1,664	1,664	1,665	1,667	1,667	19,988		19,988
j.	Bayside SCR Consumables	16,997	16,999	17,000	16,997	16,989	16,976	16,974	16,974	16,983	16,994	17,000	16,999	203,882		203,882
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	30,000	23,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	28,000	0	321,000	321,000	
p.	Arsenic Groundwater Standard Program	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
q.	Big Bend 1 SCR	132,068	121,398	71,440	130,620	118,475	132,867	132,867	134,287	129,552	160,807	84,562	149,642	1,498,585		1,498,585
r.	Big Bend 2 SCR	137,106	125,991	71,440	139,809	130,584	146,600	146,600	147,547	153,230	191,116	84,562	155,392	1,629,977		1,629,977
s.	Big Bend 3 SCR	147,181	135,177	197,886	54,164	130,584	146,600	146,600	147,547	153,230	65,145	215,268	155,392	1,694,774		1,694,774
t.	Big Bend 4 SCR	86,269	79,640	71,440	87,613	82,563	92,139	92,139	88,824	82,194	101,137	133,814	63,390	1,061,162		1,061,162
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	93,149	0	0	0	0	0	0	0	0	0	0	0	93,149		93,149
w.	Big Bend Gypsum Storage Facility	138,583	138,583	138,583	138,583	138,583	138,583	138,583	138,583	138,583	138,583	138,583	138,587	1,663,000		1,663,000
x.	Big Bend Coal Combustion Residuals (CCR) Rule	0	0	0	0	0	0	375,000	500,000	1,000,000	1,000,000	1,500,000	1,750,000	6,125,000		6,125,000
y.	Big Bend Effluent Limitation Guidelines (ELG)	0	0	0	0	0	0	0	0	0	0	0	0	0		0
2.	Total of O&M Activities	1,493,043	1,293,262	1,227,546	1,247,453	1,278,529	1,333,510	1,726,678	1,831,260	2,356,769	2,375,953	2,830,039	3,113,955	22,107,996	$355,500	$21,752,496
3.	Recoverable Costs Allocated to Energy	1,428,543	1,270,262	1,197,546	1,217,453	1,248,529	1,303,510	1,696,678	1,801,260	2,326,769	2,345,953	2,802,039	3,113,955	21,752,496		
4.	Recoverable Costs Allocated to Demand	64,500	23,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	28,000	0	355,500		
5.	Retail Energy Jurisdictional Factor	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000			
6.	Retail Demand Jurisdictional Factor	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000			
7.	Jurisdictional Energy Recoverable Costs (A)	1,428,543	1,270,262	1,197,546	1,217,453	1,248,529	1,303,510	1,696,678	1,801,260	2,326,769	2,345,953	2,802,039	3,113,955	21,752,497		
8.	Jurisdictional Demand Recoverable Costs (B)	64,500	23,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	28,000	0	355,500		
9.	Total Jurisdictional Recoverable Costs for O&M Activities (Lines 7 + 8)	$1,493,043	$1,293,262	$1,227,546	$1,247,453	$1,278,529	$1,333,510	$1,726,678	$1,831,260	$2,356,769	$2,375,953	$2,830,039	$3,113,955	$22,107,997		

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

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DOCKET NO. 20170007-EI
ECRC 2018 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 2018 to December 2018

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	$89,764	$89,553	$89,342	$89,130	$88,919	$88,707	$88,495	$88,284	$88,073	$87,861	$87,650	$87,438	$1,063,216		$1,063,216
b.	Big Bend Units 1 & 2 Flue Gas Conditioning	22,383	22,570	22,757	22,945	23,132	23,319	23,506	23,693	23,881	24,068	24,255	24,442	280,951		280,951
c.	Big Bend Unit 4 Continuous Emissions Monitors	4,678	4,661	4,644	4,627	4,610	4,593	4,576	4,559	4,543	4,525	4,509	4,491	55,016		55,016
d.	Big Bend Fuel Oil Tank # 1 Upgrade	3,045	3,035	3,024	3,013	3,003	2,993	2,983	2,973	2,962	2,952	2,942	2,931	35,856	$35,856	
e.	Big Bend Fuel Oil Tank # 2 Upgrade	5,008	4,990	4,974	4,956	4,940	4,922	4,906	4,888	4,872	4,854	4,838	4,821	58,969	58,969	
f.	Big Bend Unit 1 Classifier Replacement	7,264	7,232	7,200	7,167	7,136	7,103	7,072	7,039	7,006	6,975	6,942	6,911	85,047		85,047
g.	Big Bend Unit 2 Classifier Replacement	5,269	5,246	5,223	5,202	5,179	5,157	5,134	5,113	5,090	5,068	5,046	5,024	61,751		61,751
h.	Big Bend Section 114 Mercury Testing Platform	796	793	791	789	787	785	783	781	778	777	774	772	9,406		9,406
i.	Big Bend Units 1 & 2 FGD	566,907	564,968	563,029	561,090	559,150	557,212	555,273	553,333	551,395	549,456	547,516	545,577	6,674,906		6,674,906
j.	Big Bend FGD Optimization and Utilization	140,249	140,283	140,501	141,318	141,716	141,931	142,482	142,510	143,087	144,837	146,144	147,817	1,712,875		1,712,875
k.	Big Bend NO_x Emissions Reduction	47,273	47,199	47,124	47,050	46,975	46,900	46,826	46,751	46,676	46,601	46,527	46,452	562,354		562,354
l.	Big Bend PM Minimization and Monitoring	168,256	167,810	167,364	166,917	166,471	166,025	165,578	165,131	164,685	164,239	163,792	163,346	1,989,614		1,989,614
m.	Polk NO_x Emissions Reduction	10,458	10,426	10,393	10,361	10,328	10,296	10,264	10,231	10,198	10,166	10,133	10,102	123,356		123,356
n.	Big Bend Unit 4 SOFA	18,469	18,421	18,374	18,328	18,280	18,234	18,187	18,140	18,093	18,046	17,999	17,952	218,523		218,523
o.	Big Bend Unit 1 Pre-SCR	12,689	12,649	12,608	12,568	12,528	12,488	12,447	12,407	12,367	12,327	12,285	12,245	149,608		149,608
p.	Big Bend Unit 2 Pre-SCR	12,101	12,065	12,030	11,993	11,958	11,923	11,887	11,851	11,815	11,780	11,743	11,708	142,854		142,854
q.	Big Bend Unit 3 Pre-SCR	21,668	21,610	21,552	21,493	21,435	21,377	21,319	21,261	21,202	21,144	21,085	21,027	256,173		256,173
r.	Big Bend Unit 1 SCR	734,861	732,594	730,326	728,060	725,792	723,525	722,908	722,290	721,673	721,056	718,789	716,522	8,698,396		8,698,396
s.	Big Bend Unit 2 SCR	778,679	776,421	774,165	771,907	769,649	767,391	765,135	762,877	760,619	758,363	756,105	753,847	9,195,158		9,195,158
t.	Big Bend Unit 3 SCR	645,868	644,020	642,172	640,323	638,474	636,626	634,778	632,929	631,080	629,232	627,384	625,535	7,628,421		7,628,421
u.	Big Bend Unit 4 SCR	500,877	499,500	498,124	496,747	495,370	493,994	492,617	491,241	489,864	488,487	487,111	485,734	5,919,666		5,919,666
v.	Big Bend FGD System Reliability	195,850	195,474	195,098	194,722	194,345	193,969	193,593	193,217	192,840	192,464	192,087	191,712	2,325,371		2,325,371
w.	Mercury Air Toxics Standards	76,290	76,130	75,969	77,092	78,215	78,054	78,041	78,027	77,866	77,706	77,545	77,385	928,320		928,320
x.	SO_2 Emissions Allowances (B)	(253)	(252)	(252)	(252)	(251)	(251)	(251)	(251)	(251)	(251)	(250)	(250)	(3,015)		(3,015)
y.	Big Bend Gypsum Storage Facility	195,110	194,729	194,348	193,968	193,587	193,208	192,827	192,446	192,066	191,685	191,305	190,925	2,316,204		2,316,204
z.	Big Bend Coal Combustion Residuals (CCR Rule)	11,373	12,702	14,033	15,362	16,691	18,022	19,351	20,680	22,010	23,340	24,670	25,999	224,233	224,233	
2.	Total Investment Projects - Recoverable Costs	4,274,932	4,264,829	4,254,913	4,246,876	4,238,419	4,228,503	4,220,717	4,212,401	4,204,490	4,197,758	4,188,926	4,180,465	50,713,229	$319,058	$50,394,171
3.	Recoverable Costs Allocated to Energy	4,255,506	4,244,102	4,232,882	4,223,545	4,213,785	4,202,566	4,193,477	4,183,860	4,174,646	4,166,612	4,156,476	4,146,714	50,394,171		50,394,171
4.	Recoverable Costs Allocated to Demand	19,426	20,727	22,031	23,331	24,634	25,937	27,240	28,541	29,844	31,146	32,450	33,751	319,058	319,058	
5.	Retail Energy Jurisdictional Factor	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000			
6.	Retail Demand Jurisdictional Factor	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000			
7.	Jurisdictional Energy Recoverable Costs (C)	4,255,506	4,244,102	4,232,882	4,223,545	4,213,785	4,202,566	4,193,477	4,183,860	4,174,646	4,166,612	4,156,476	4,146,714	50,394,171		
8.	Jurisdictional Demand Recoverable Costs (D)	19,426	20,727	22,031	23,331	24,634	25,937	27,240	28,541	29,844	31,146	32,450	33,751	319,058		
9.	Total Jurisdictional Recoverable Costs for Investment Projects (Lines 7 + 8)	$4,274,932	$4,264,829	$4,254,913	$4,246,876	$4,238,419	$4,228,503	$4,220,717	$4,212,401	$4,204,490	$4,197,758	$4,188,926	$4,180,465	$50,713,229		

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 2018 to December 2018

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	(5,440,288)	(5,469,125)	(5,497,962)	(5,526,799)	(5,555,636)	(5,584,473)	(5,613,310)	(5,642,147)	(5,670,984)	(5,699,821)	(5,728,658)	(5,757,495)	(5,786,332)	
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)	$8,322,793	8,293,956	8,265,119	8,236,282	8,207,445	8,178,608	8,149,771	8,120,934	8,092,097	8,063,260	8,034,423	8,005,586	7,976,749	
6.	Average Net Investment		8,308,375	8,279,538	8,250,701	8,221,864	8,193,027	8,164,190	8,135,353	8,106,516	8,077,679	8,048,842	8,020,005	7,991,168	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$48,493	$48,325	$48,157	$47,988	$47,820	$47,652	$47,483	$47,315	$47,147	$46,978	$46,810	$46,642	$570,810
	b. Debt Component Grossed Up For Taxes (C)		12,434	12,391	12,348	12,305	12,262	12,218	12,175	12,132	12,089	12,046	12,003	11,959	146,362
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)		$89,764	$89,553	$89,342	$89,130	$88,919	$88,707	$88,495	$88,284	$88,073	$87,861	$87,650	$87,438	$1,063,216
	a. Recoverable Costs Allocated to Energy		89,764	89,553	89,342	89,130	88,919	88,707	88,495	88,284	88,073	87,861	87,650	87,438	1,063,216
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		89,764	89,553	89,342	89,130	88,919	88,707	88,495	88,284	88,073	87,861	87,650	87,438	1,063,216
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)		$89,764	$89,553	$89,342	$89,130	$88,919	$88,707	$88,495	$88,284	$88,073	$87,861	$87,650	$87,438	$1,063,216

Notes:
(A) Applicable depreciable base for Big Bend; accounts 312.45 ($13,435,775) and 315.45 ($327,307
(B) Line 6 x 7.0040% 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 1.7959% 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

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2018 to December 2018

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		$41,667	$41,667	$41,667	$41,667	$41,667	$41,667	$41,667	$41,667	$41,667	$41,667	$41,667	$41,667	$500,000
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	500,000	500,000
	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	$5,517,734	
3.	Less: Accumulated Depreciation	(4,179,278)	(4,195,419)	(4,211,560)	(4,227,701)	(4,243,842)	(4,259,983)	(4,276,124)	(4,292,265)	(4,308,406)	(4,324,547)	(4,340,688)	(4,356,829)	(4,372,970)	
4.	CWIP - Non-Interest Bearing	0	41,667	83,333	125,000	166,667	208,333	250,000	291,667	333,333	375,000	416,667	458,333	0	
5.	Net Investment (Lines 2 + 3 + 4)	$838,456	863,982	889,507	915,033	940,559	966,084	991,610	1,017,136	1,042,661	1,068,187	1,093,713	1,119,238	1,144,764	
6.	Average Net Investment		851,219	876,744	902,270	927,796	953,321	978,847	1,004,373	1,029,898	1,055,424	1,080,950	1,106,475	1,132,001	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$4,968	$5,117	$5,266	$5,415	$5,564	$5,713	$5,862	$6,011	$6,160	$6,309	$6,458	$6,607	$69,450
	b. Debt Component Grossed Up For Taxes (C)		1,274	1,312	1,350	1,389	1,427	1,465	1,503	1,541	1,580	1,618	1,656	1,694	17,809
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)		$22,383	$22,570	$22,757	$22,945	$23,132	$23,319	$23,506	$23,693	$23,881	$24,068	$24,255	$24,442	$280,951
	a. Recoverable Costs Allocated to Energy		22,383	22,570	22,757	22,945	23,132	23,319	23,506	23,693	23,881	24,068	24,255	24,442	280,951
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		22,383	22,570	22,757	22,945	23,132	23,319	23,506	23,693	23,881	24,068	24,255	24,442	280,951
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)		$22,383	$22,570	$22,757	$22,945	$23,132	$23,319	$23,506	$23,693	$23,881	$24,068	$24,255	$24,442	$280,951

Notes:
(A) Applicable depreciable base for Big Bend; accounts 312.41 ($2,676,217) and 312.42 ($2,341,517)
(B) Line 6 x 7.0040% 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 1.7959% 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 2018 to December 2018

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	(542,165)	(544,475)	(546,785)	(549,095)	(551,405)	(553,715)	(556,025)	(558,335)	(560,645)	(562,955)	(565,265)	(567,575)	(569,885)	
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)	$324,046	321,736	319,426	317,116	314,806	312,496	310,186	307,876	305,566	303,256	300,946	298,636	296,326	
6.	Average Net Investment		322,891	320,581	318,271	315,961	313,651	311,341	309,031	306,721	304,411	302,101	299,791	297,481	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$1,885	$1,871	$1,858	$1,844	$1,831	$1,817	$1,804	$1,790	$1,777	$1,763	$1,750	$1,736	$21,726
	b. Debt Component Grossed Up For Taxes (C)		483	480	476	473	469	466	462	459	456	452	449	445	5,570
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)		$4,678	$4,661	$4,644	$4,627	$4,610	$4,593	$4,576	$4,559	$4,543	$4,525	$4,509	$4,491	$55,016
	a. Recoverable Costs Allocated to Energy		4,678	4,661	4,644	4,627	4,610	4,593	4,576	4,559	4,543	4,525	4,509	4,491	55,016
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		4,678	4,661	4,644	4,627	4,610	4,593	4,576	4,559	4,543	4,525	4,509	4,491	55,016
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)		$4,678	$4,661	$4,644	$4,627	$4,610	$4,593	$4,576	$4,559	$4,543	$4,525	$4,509	$4,491	$55,016
			239	*239*	*238*										

Notes:
(A) Applicable depreciable base for Big Bend; account 315.44
(B) Line 6 x 7.0040% 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 1.7959% x 1/12.
(D) Applicable depreciation rate is 3.2%
(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 2018 to December 2018

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	(273,952)	(275,362)	(276,772)	(278,182)	(279,592)	(281,002)	(282,412)	(283,822)	(285,232)	(286,642)	(288,052)	(289,462)	(290,872)	
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)	$223,626	222,216	220,806	219,396	217,986	216,576	215,166	213,756	212,346	210,936	209,526	208,116	206,706	
6.	Average Net Investment		222,921	221,511	220,101	218,691	217,281	215,871	214,461	213,051	211,641	210,231	208,821	207,411	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$1,301	$1,293	$1,285	$1,276	$1,268	$1,260	$1,252	$1,244	$1,235	$1,227	$1,219	$1,211	$15,071
	b. Debt Component Grossed Up For Taxes (C)		334	332	329	327	325	323	321	319	317	315	313	310	3,865
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)		$3,045	$3,035	$3,024	$3,013	$3,003	$2,993	$2,983	$2,973	$2,962	$2,952	$2,942	$2,931	$35,856
	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		3,045	3,035	3,024	3,013	3,003	2,993	2,983	2,973	2,962	2,952	2,942	2,931	35,856
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
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)		3,045	3,035	3,024	3,013	3,003	2,993	2,983	2,973	2,962	2,952	2,942	2,931	35,856
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$3,045	$3,035	$3,024	$3,013	$3,003	$2,993	$2,983	$2,973	$2,962	$2,952	$2,942	$2,931	$35,856
			136	*134*	*135*										

Notes:
(A) Applicable depreciable base for Big Bend; account 312.40
(B) Line 6 x 7.0040% 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 1.7959% 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 2018 to December 2018

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	(450,592)	(452,911)	(455,230)	(457,549)	(459,868)	(462,187)	(464,506)	(466,825)	(469,144)	(471,463)	(473,782)	(476,101)	(478,420)	
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)	$367,809	365,490	363,171	360,852	358,533	356,214	353,895	351,576	349,257	346,938	344,619	342,300	339,981	
6.	Average Net Investment		366,650	364,331	362,012	359,693	357,374	355,055	352,736	350,417	348,098	345,779	343,460	341,141	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$2,140	$2,126	$2,113	$2,099	$2,086	$2,072	$2,059	$2,045	$2,032	$2,018	$2,005	$1,991	$24,786
	b. Debt Component Grossed Up For Taxes (C)		549	545	542	538	535	531	528	524	521	517	514	511	6,355
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)		$5,008	$4,990	$4,974	$4,956	$4,940	$4,922	$4,906	$4,888	$4,872	$4,854	$4,838	$4,821	$58,969
	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		5,008	4,990	4,974	4,956	4,940	4,922	4,906	4,888	4,872	4,854	4,838	4,821	58,969
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
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)		5,008	4,990	4,974	4,956	4,940	4,922	4,906	4,888	4,872	4,854	4,838	4,821	58,969
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$5,008	$4,990	$4,974	$4,956	$4,940	$4,922	$4,906	$4,888	$4,872	$4,854	$4,838	$4,821	$58,969

Notes:
(A) Applicable depreciable base for Big Bend; account 312.40
(B) Line 6 x 7.0040% 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 1.7959% 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 2018 to December 2018

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	(921,848)	(926,236)	(930,624)	(935,012)	(939,400)	(943,788)	(948,176)	(952,564)	(956,952)	(961,340)	(965,728)	(970,116)	(974,504)	
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)	$394,409	390,021	385,633	381,245	376,857	372,469	368,081	363,693	359,305	354,917	350,529	346,141	341,753	
6.	Average Net Investment		392,215	387,827	383,439	379,051	374,663	370,275	365,887	361,499	357,111	352,723	348,335	343,947	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$2,289	$2,264	$2,238	$2,212	$2,187	$2,161	$2,136	$2,110	$2,084	$2,059	$2,033	$2,008	$25,781
	b. Debt Component Grossed Up For Taxes (C)		587	580	574	567	561	554	548	541	534	528	521	515	6,610
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)		$7,264	$7,232	$7,200	$7,167	$7,136	$7,103	$7,072	$7,039	$7,006	$6,975	$6,942	$6,911	$85,047
	a. Recoverable Costs Allocated to Energy		7,264	7,232	7,200	7,167	7,136	7,103	7,072	7,039	7,006	6,975	6,942	6,911	85,047
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		7,264	7,232	7,200	7,167	7,136	7,103	7,072	7,039	7,006	6,975	6,942	6,911	85,047
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)		$7,264	$7,232	$7,200	$7,167	$7,136	$7,103	$7,072	$7,039	$7,006	$6,975	$6,942	$6,911	$85,047

Notes:
(A) Applicable depreciable base for Big Bend; account 312.41
(B) Line 6 x 7.0040% 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 1.7959% x 1/12.
(D) Applicable depreciation rate is 4.0%
(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 2018 to December 2018

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	(678,870)	(681,906)	(684,942)	(687,978)	(691,014)	(694,050)	(697,086)	(700,122)	(703,158)	(706,194)	(709,230)	(712,266)	(715,302)	
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)	$305,924	302,888	299,852	296,816	293,780	290,744	287,708	284,672	281,636	278,600	275,564	272,528	269,492	
6.	Average Net Investment		304,406	301,370	298,334	295,298	292,262	289,226	286,190	283,154	280,118	277,082	274,046	271,010	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$1,777	$1,759	$1,741	$1,724	$1,706	$1,688	$1,670	$1,653	$1,635	$1,617	$1,600	$1,582	$20,152
	b. Debt Component Grossed Up For Taxes (C)		456	451	446	442	437	433	428	424	419	415	410	406	5,167
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)		$5,269	$5,246	$5,223	$5,202	$5,179	$5,157	$5,134	$5,113	$5,090	$5,068	$5,046	$5,024	$61,751
	a. Recoverable Costs Allocated to Energy		5,269	5,246	5,223	5,202	5,179	5,157	5,134	5,113	5,090	5,068	5,046	5,024	61,751
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		5,269	5,246	5,223	5,202	5,179	5,157	5,134	5,113	5,090	5,068	5,046	5,024	61,751
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)		$5,269	$5,246	$5,223	$5,202	$5,179	$5,157	$5,134	$5,113	$5,090	$5,068	$5,046	$5,024	$61,751

Notes:
(A) Applicable depreciable base for Big Bend; account 312.42
(B) Line 6 x 7.0040% 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 1.7959% x 1/12.
(D) Applicable depreciation rate is 3.7%
(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 2018 to December 2018

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	(51,907)	(52,199)	(52,491)	(52,783)	(53,075)	(53,367)	(53,659)	(53,951)	(54,243)	(54,535)	(54,827)	(55,119)	(55,411)	
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)	$68,830	68,538	68,246	67,954	67,662	67,370	67,078	66,786	66,494	66,202	65,910	65,618	65,326	
6.	Average Net Investment		68,684	68,392	68,100	67,808	67,516	67,224	66,932	66,640	66,348	66,056	65,764	65,472	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$401	$399	$397	$396	$394	$392	$391	$389	$387	$386	$384	$382	$4,698
	b. Debt Component Grossed Up For Taxes (C)		103	102	102	101	101	101	100	100	99	99	98	98	1,204
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)		$796	$793	$791	$789	$787	$785	$783	$781	$778	$777	$774	$772	$9,406
	a. Recoverable Costs Allocated to Energy		796	793	791	789	787	785	783	781	778	777	774	772	9,406
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		796	793	791	789	787	785	783	781	778	777	774	772	9,406
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)		$796	$793	$791	$789	$787	$785	$783	$781	$778	$777	$774	$772	$9,406

Notes:
(A) Applicable depreciable base for Big Bend; account 311.40
(B) Line 6 x 7.0040% 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 1.7959% 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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DOCKET NO. 20170007-EI
ECRC 2018 PROJECTION, FORM 42-4P
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Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2018 to December 2018

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)	$96,455,242	$96,455,242	$96,455,242	$96,455,242	$96,455,242	$96,455,242	$96,455,242	$96,455,242	$96,455,242	$96,455,242	$96,455,242	$96,455,242	$96,455,242	
3.	Less: Accumulated Depreciation	(55,074,209)	(55,338,628)	(55,603,047)	(55,867,466)	(56,131,885)	(56,396,304)	(56,660,723)	(56,925,142)	(57,189,561)	(57,453,980)	(57,718,399)	(57,982,818)	(58,247,237)	
4.	CWIP - Non-Interest Bearing	0	0	0	-	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	$41,381,033	41,116,614	40,852,195	40,587,776	40,323,357	40,058,938	39,794,519	39,530,100	39,265,681	39,001,262	38,736,843	38,472,424	38,208,005	
6.	Average Net Investment		41,248,823	40,984,404	40,719,985	40,455,566	40,191,147	39,926,728	39,662,309	39,397,890	39,133,471	38,869,052	38,604,633	38,340,214	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$240,756	$239,212	$237,669	$236,126	$234,582	$233,039	$231,496	$229,952	$228,409	$226,866	$225,322	$223,779	$2,787,208
	b. Debt Component Grossed Up For Taxes (C)		61,732	61,337	60,941	60,545	60,149	59,754	59,358	58,962	58,567	58,171	57,775	57,379	714,670
8.	Investment Expenses														
	a. Depreciation (D)		$264,419	$264,419	$264,419	$264,419	$264,419	$264,419	$264,419	$264,419	$264,419	$264,419	$264,419	$264,419	$3,173,028
	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)		$566,907	$564,968	$563,029	$561,090	$559,150	$557,212	$555,273	$553,333	$551,395	$549,456	$547,516	$545,577	$6,674,906
	a. Recoverable Costs Allocated to Energy		566,907	564,968	563,029	561,090	559,150	557,212	555,273	553,333	551,395	549,456	547,516	545,577	6,674,906
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		566,907	564,968	563,029	561,090	559,150	557,212	555,273	553,333	551,395	549,456	547,516	545,577	6,674,906
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)		$566,907	$564,968	$563,029	$561,090	$559,150	$557,212	$555,273	$553,333	$551,395	$549,456	$547,516	$545,577	$6,674,906

Notes:
(A) Applicable depreciable base for Big Bend; accounts 312.46 ($94,929,061), 312.45 ($1,305,398), & 315.46 ($220,782)
(B) Line 6 x 7.0040% 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 1.7959% x 1/12.
(D) Applicable depreciation rates are 3.3%, 2.5%, 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 2018 to December 2018

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		$50,000	$50,000	$100,000	$100,000	$100,000	$50,000	$50,000	$50,000	$200,000	$200,000	$250,000	$300,000	$1,500,000
	b. Clearings to Plant		0	0	200,000	0	0	250,000	0	0	300,000	0	0	750,000	1,500,000
	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	$21,939,737	$21,939,737	$21,939,737	$22,189,737	$22,189,737	$22,189,737	$22,489,737	$22,489,737	$22,489,737	$23,239,737	
3.	Less: Accumulated Depreciation	(8,790,925)	(8,836,199)	(8,881,473)	(8,926,747)	(8,972,438)	(9,018,129)	(9,063,820)	(9,110,032)	(9,156,244)	(9,202,456)	(9,249,293)	(9,296,130)	(9,342,967)	
4.	CWIP - Non-Interest Bearing	0	50,000	100,000	0	100,000	200,000	0	50,000	100,000	0	200,000	450,000	0	
5.	Net Investment (Lines 2 + 3 + 4)	$12,948,812	12,953,538	12,958,264	13,012,990	13,067,299	13,121,608	13,125,917	13,129,705	13,133,493	13,287,281	13,440,444	13,643,607	13,896,770	
6.	Average Net Investment		12,951,175	12,955,901	12,985,627	13,040,145	13,094,454	13,123,763	13,127,811	13,131,599	13,210,387	13,363,863	13,542,026	13,770,189	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$75,592	$75,619	$75,793	$76,111	$76,428	$76,599	$76,623	$76,645	$77,105	$78,000	$79,040	$80,372	$923,927
	b. Debt Component Grossed Up For Taxes (C)		19,383	19,390	19,434	19,516	19,597	19,641	19,647	19,653	19,770	20,000	20,267	20,608	236,906
8.	Investment Expenses														
	a. Depreciation (D)		$45,274	$45,274	$45,274	$45,691	$45,691	$45,691	$46,212	$46,212	$46,212	$46,837	$46,837	$46,837	$552,042
	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)		$140,249	$140,283	$140,501	$141,318	$141,716	$141,931	$142,482	$142,510	$143,087	$144,837	$146,144	$147,817	$1,712,875
	a. Recoverable Costs Allocated to Energy		140,249	140,283	140,501	141,318	141,716	141,931	142,482	142,510	143,087	144,837	146,144	147,817	1,712,875
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		140,249	140,283	140,501	141,318	141,716	141,931	142,482	142,510	143,087	144,837	146,144	147,817	1,712,875
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)		$140,249	$140,283	$140,501	$141,318	$141,716	$141,931	$142,482	$142,510	$143,087	$144,837	$146,144	$147,817	$1,712,875

Notes:
(A) Applicable depreciable base for Big Bend; accounts 312.45 ($23,199,919) and 311.45 ($39,818
(B) Line 6 x 7.0040% 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 1.7959% 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

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Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2018 to December 2018

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	1,871,979	1,861,795	1,851,611	1,841,427	1,831,243	1,821,059	1,810,875	1,800,691	1,790,507	1,780,323	1,770,139	1,759,955	1,749,771	
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)	$5,062,831	5,052,647	5,042,463	5,032,279	5,022,095	5,011,911	5,001,727	4,991,543	4,981,359	4,971,175	4,960,991	4,950,807	4,940,623	
6.	Average Net Investment		5,057,739	5,047,555	5,037,371	5,027,187	5,017,003	5,006,819	4,996,635	4,986,451	4,976,267	4,966,083	4,955,899	4,945,715	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$29,520	$29,461	$29,401	$29,342	$29,283	$29,223	$29,164	$29,104	$29,045	$28,985	$28,926	$28,866	$350,320
	b. Debt Component Grossed Up For Taxes (C)		7,569	7,554	7,539	7,524	7,508	7,493	7,478	7,463	7,447	7,432	7,417	7,402	89,826
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)		$47,273	$47,199	$47,124	$47,050	$46,975	$46,900	$46,826	$46,751	$46,676	$46,601	$46,527	$46,452	$562,354
	a. Recoverable Costs Allocated to Energy		47,273	47,199	47,124	47,050	46,975	46,900	46,826	46,751	46,676	46,601	46,527	46,452	562,354
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		47,273	47,199	47,124	47,050	46,975	46,900	46,826	46,751	46,676	46,601	46,527	46,452	562,354
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)		$47,273	$47,199	$47,124	$47,050	$46,975	$46,900	$46,826	$46,751	$46,676	$46,601	$46,527	$46,452	$562,354

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 7.0040% 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 1.7959% 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 2018 to December 2018

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)	$19,757,774	$19,757,774	$19,757,774	$19,757,774	$19,757,774	$19,757,774	$19,757,774	$19,757,774	$19,757,774	$19,757,774	$19,757,774	$19,757,774	$19,757,774	
3.	Less: Accumulated Depreciation	(5,083,858)	(5,144,730)	(5,205,602)	(5,266,474)	(5,327,346)	(5,388,218)	(5,449,090)	(5,509,962)	(5,570,834)	(5,631,706)	(5,692,578)	(5,753,450)	(5,814,322)	
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)	$14,673,916	14,613,044	14,552,172	14,491,300	14,430,428	14,369,556	14,308,684	14,247,812	14,186,940	14,126,068	14,065,196	14,004,324	13,943,452	
6.	Average Net Investment		14,643,480	14,582,608	14,521,736	14,460,864	14,399,992	14,339,120	14,278,248	14,217,376	14,156,504	14,095,632	14,034,760	13,973,888	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$85,469	$85,114	$84,759	$84,403	$84,048	$83,693	$83,337	$82,982	$82,627	$82,272	$81,916	$81,561	$1,002,181
	b. Debt Component Grossed Up For Taxes (C)		21,915	21,824	21,733	21,642	21,551	21,460	21,369	21,277	21,186	21,095	21,004	20,913	256,969
8.	Investment Expenses														
	a. Depreciation (D)		$60,872	$60,872	$60,872	$60,872	$60,872	$60,872	$60,872	$60,872	$60,872	$60,872	$60,872	$60,872	$730,464
	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)		$168,256	$167,810	$167,364	$166,917	$166,471	$166,025	$165,578	$165,131	$164,685	$164,239	$163,792	$163,346	$1,989,614
	a. Recoverable Costs Allocated to Energy		168,256	167,810	167,364	166,917	166,471	166,025	165,578	165,131	164,685	164,239	163,792	163,346	1,989,614
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		168,256	167,810	167,364	166,917	166,471	166,025	165,578	165,131	164,685	164,239	163,792	163,346	1,989,614
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)		$168,256	$167,810	$167,364	$166,917	$166,471	$166,025	$165,578	$165,131	$164,685	$164,239	$163,792	$163,346	$1,989,614

Notes:
(A) Applicable depreciable base for Big Bend; accounts 312.41 ($5,831,489), 312.42 ($5,153,072), 312.43 ($7,875,560), 315.41 ($17,504), 315.44 ($351,594), and 315.43 ($528,55
(B) Line 6 x 7.0040% 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 1.7959% 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

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ECRC 2018 PROJECTION, FORM 42-4P
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Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2018 to December 2018

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	(736,410)	(740,834)	(745,258)	(749,682)	(754,106)	(758,530)	(762,954)	(767,378)	(771,802)	(776,226)	(780,650)	(785,074)	(789,498)	
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)	$825,063	820,639	816,215	811,791	807,367	802,943	798,519	794,095	789,671	785,247	780,823	776,399	771,975	
6.	Average Net Investment		822,851	818,427	814,003	809,579	805,155	800,731	796,307	791,883	787,459	783,035	778,611	774,187	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$4,803	$4,777	$4,751	$4,725	$4,699	$4,674	$4,648	$4,622	$4,596	$4,570	$4,544	$4,519	$55,928
	b. Debt Component Grossed Up For Taxes (C)		1,231	1,225	1,218	1,212	1,205	1,198	1,192	1,185	1,178	1,172	1,165	1,159	14,340
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)		$10,458	$10,426	$10,393	$10,361	$10,328	$10,296	$10,264	$10,231	$10,198	$10,166	$10,133	$10,102	$123,356
	a. Recoverable Costs Allocated to Energy		10,458	10,426	10,393	10,361	10,328	10,296	10,264	10,231	10,198	10,166	10,133	10,102	123,356
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		10,458	10,426	10,393	10,361	10,328	10,296	10,264	10,231	10,198	10,166	10,133	10,102	123,356
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)		$10,458	$10,426	$10,393	$10,361	$10,328	$10,296	$10,264	$10,231	$10,198	$10,166	$10,133	$10,102	$123,356

Notes:
(A) Applicable depreciable base for Polk; account 342.81
(B) Line 6 x 7.0040% 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 1.7959% x 1/12.
(D) Applicable depreciation rate is 3.4%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

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DOCKET NO. 20170007-EI
ECRC 2018 PROJECTION, FORM 42-4P
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Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2018 to December 2018

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	(909,434)	(915,831)	(922,228)	(928,625)	(935,022)	(941,419)	(947,816)	(954,213)	(960,610)	(967,007)	(973,404)	(979,801)	(986,198)	
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)	$1,649,296	1,642,899	1,636,502	1,630,105	1,623,708	1,617,311	1,610,914	1,604,517	1,598,120	1,591,723	1,585,326	1,578,929	1,572,532	
6.	Average Net Investment		1,646,098	1,639,701	1,633,304	1,626,907	1,620,510	1,614,113	1,607,716	1,601,319	1,594,922	1,588,525	1,582,128	1,575,731	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$9,608	$9,570	$9,533	$9,496	$9,458	$9,421	$9,384	$9,346	$9,309	$9,272	$9,234	$9,197	$112,828
	b. Debt Component Grossed Up For Taxes (C)		2,464	2,454	2,444	2,435	2,425	2,416	2,406	2,397	2,387	2,377	2,368	2,358	28,931
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)		$18,469	$18,421	$18,374	$18,328	$18,280	$18,234	$18,187	$18,140	$18,093	$18,046	$17,999	$17,952	$218,523
	a. Recoverable Costs Allocated to Energy		18,469	18,421	18,374	18,328	18,280	18,234	18,187	18,140	18,093	18,046	17,999	17,952	218,523
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		18,469	18,421	18,374	18,328	18,280	18,234	18,187	18,140	18,093	18,046	17,999	17,952	218,523
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)		$18,469	$18,421	$18,374	$18,328	$18,280	$18,234	$18,187	$18,140	$18,093	$18,046	$17,999	$17,952	$218,523

Notes:
(A) Applicable depreciable base for Big Bend; account 312.44
(B) Line 6 x 7.0040% 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 1.7959% x 1/12.
(D) Applicable depreciation rate is 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 2018 to December 2018

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	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	(665,629)	(671,126)	(676,623)	(682,120)	(687,617)	(693,114)	(698,611)	(704,108)	(709,605)	(715,102)	(720,599)	(726,096)	(731,593)	
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)	$983,492	977,995	972,498	967,001	961,504	956,007	950,510	945,013	939,516	934,019	928,522	923,025	917,528	
6.	Average Net Investment		980,744	975,247	969,750	964,253	958,756	953,259	947,762	942,265	936,768	931,271	925,774	920,277	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$5,724	$5,692	$5,660	$5,628	$5,596	$5,564	$5,532	$5,500	$5,468	$5,436	$5,403	$5,371	$66,574
	b. Debt Component Grossed Up For Taxes (C)		1,468	1,460	1,451	1,443	1,435	1,427	1,418	1,410	1,402	1,394	1,385	1,377	17,070
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)		$12,689	$12,649	$12,608	$12,568	$12,528	$12,488	$12,447	$12,407	$12,367	$12,327	$12,285	$12,245	$149,608
	a. Recoverable Costs Allocated to Energy		12,689	12,649	12,608	12,568	12,528	12,488	12,447	12,407	12,367	12,327	12,285	12,245	149,608
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		12,689	12,649	12,608	12,568	12,528	12,488	12,447	12,407	12,367	12,327	12,285	12,245	149,608
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)		$12,689	$12,649	$12,608	$12,568	$12,528	$12,488	$12,447	$12,407	$12,367	$12,327	$12,285	$12,245	$149,608

Notes:
(A) Applicable depreciable base for Big Bend; account 312.41
(B) Line 6 x 7.0040% 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 1.7959% x 1/12.
(D) Applicable depreciation rate is 4.0%
(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 2018 to December 2018

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	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	(594,320)	(599,197)	(604,074)	(608,951)	(613,828)	(618,705)	(623,582)	(628,459)	(633,336)	(638,213)	(643,090)	(647,967)	(652,844)	
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)	$987,567	982,690	977,813	972,936	968,059	963,182	958,305	953,428	948,551	943,674	938,797	933,920	929,043	
6.	Average Net Investment		985,129	980,252	975,375	970,498	965,621	960,744	955,867	950,990	946,113	941,236	936,359	931,482	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$5,750	$5,721	$5,693	$5,664	$5,636	$5,608	$5,579	$5,551	$5,522	$5,494	$5,465	$5,437	$67,120
	b. Debt Component Grossed Up For Taxes (C)		1,474	1,467	1,460	1,452	1,445	1,438	1,431	1,423	1,416	1,409	1,401	1,394	17,210
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)		$12,101	$12,065	$12,030	$11,993	$11,958	$11,923	$11,887	$11,851	$11,815	$11,780	$11,743	$11,708	$142,854
	a. Recoverable Costs Allocated to Energy		12,101	12,065	12,030	11,993	11,958	11,923	11,887	11,851	11,815	11,780	11,743	11,708	142,854
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		12,101	12,065	12,030	11,993	11,958	11,923	11,887	11,851	11,815	11,780	11,743	11,708	142,854
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)		$12,101	$12,065	$12,030	$11,993	$11,958	$11,923	$11,887	$11,851	$11,815	$11,780	$11,743	$11,708	$142,854

Notes:
(A) Applicable depreciable base for Big Bend; account 312.42
(B) Line 6 x 7.0040% 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 1.7959% x 1/12.
(D) Applicable depreciation rate is 3.7%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

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ECRC 2018 PROJECTION, FORM 42-4P
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Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2018 to December 2018

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	(832,202)	(840,155)	(848,108)	(856,061)	(864,014)	(871,967)	(879,920)	(887,873)	(895,826)	(903,779)	(911,732)	(919,685)	(927,638)	
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)	$1,874,305	1,866,352	1,858,399	1,850,446	1,842,493	1,834,540	1,826,587	1,818,634	1,810,681	1,802,728	1,794,775	1,786,822	1,778,869	
6.	Average Net Investment		1,870,329	1,862,376	1,854,423	1,846,470	1,838,517	1,830,564	1,822,611	1,814,658	1,806,705	1,798,752	1,790,799	1,782,846	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$10,916	$10,870	$10,824	$10,777	$10,731	$10,684	$10,638	$10,592	$10,545	$10,499	$10,452	$10,406	$127,934
	b. Debt Component Grossed Up For Taxes (C)		2,799	2,787	2,775	2,763	2,751	2,740	2,728	2,716	2,704	2,692	2,680	2,668	32,803
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)		$21,668	$21,610	$21,552	$21,493	$21,435	$21,377	$21,319	$21,261	$21,202	$21,144	$21,085	$21,027	$256,173
	a. Recoverable Costs Allocated to Energy		21,668	21,610	21,552	21,493	21,435	21,377	21,319	21,261	21,202	21,144	21,085	21,027	256,173
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		21,668	21,610	21,552	21,493	21,435	21,377	21,319	21,261	21,202	21,144	21,085	21,027	256,173
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)		$21,668	$21,610	$21,552	$21,493	$21,435	$21,377	$21,319	$21,261	$21,202	$21,144	$21,085	$21,027	$256,173

Notes:
(A) Applicable depreciable base for Big Bend; account 312.43 ($1,995,677) and 315.43 ($710,830)
(B) Line 6 x 7.0040% 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 1.7959% 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

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DOCKET NO. 20170007-EI
ECRC 2018 PROJECTION, FORM 42-4P
EXHIBIT NO. PAR-3, DOCUMENT NO. 4, PAGE 17 OF 26

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2018 to December 2018

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	$450,000	$0	$450,000	$0	$0	$0	$900,000
	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		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	(28,849,638)	(29,158,804)	(29,467,970)	(29,777,136)	(30,086,302)	(30,395,468)	(30,704,634)	(31,013,800)	(31,322,966)	(31,632,132)	(31,941,298)	(32,250,464)	(32,559,630)	
4.	CWIP - Non-Interest Bearing	1,335,085	1,335,085	1,335,085	1,335,085	1,335,085	1,335,085	1,335,085	1,785,085	1,785,085	2,235,085	2,235,085	2,235,085	2,235,085	
5.	Net Investment (Lines 2 + 3 + 4)	$58,204,549	57,895,383	57,586,217	57,277,051	56,967,885	56,658,719	56,349,553	56,490,387	56,181,221	56,322,055	56,012,889	55,703,723	55,394,557	
6.	Average Net Investment		58,049,966	57,740,800	57,431,634	57,122,468	56,813,302	56,504,136	56,419,970	56,335,804	56,251,638	56,167,472	55,858,306	55,549,140	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$338,818	$337,014	$335,209	$333,405	$331,600	$329,796	$329,305	$328,813	$328,322	$327,831	$326,026	$324,222	$3,970,361
	b. Debt Component Grossed Up For Taxes (C)		86,877	86,414	85,951	85,489	85,026	84,563	84,437	84,311	84,185	84,059	83,597	83,134	1,018,043
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)		$734,861	$732,594	$730,326	$728,060	$725,792	$723,525	$722,908	$722,290	$721,673	$721,056	$718,789	$716,522	$8,698,396
	a. Recoverable Costs Allocated to Energy		734,861	732,594	730,326	728,060	725,792	723,525	722,908	722,290	721,673	721,056	718,789	716,522	8,698,396
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		734,861	732,594	730,326	728,060	725,792	723,525	722,908	722,290	721,673	721,056	718,789	716,522	8,698,396
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)		$734,861	$732,594	$730,326	$728,060	$725,792	$723,525	$722,908	$722,290	$721,673	$721,056	$718,789	$716,522	$8,698,396

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 7.0040% 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 1.7959% 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. 20170007-EI
ECRC 2018 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 2018 to December 2018

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	(30,814,532)	(31,122,366)	(31,430,200)	(31,738,034)	(32,045,868)	(32,353,702)	(32,661,536)	(32,969,370)	(33,277,204)	(33,585,038)	(33,892,872)	(34,200,706)	(34,508,540)	
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)	$64,360,777	64,052,943	63,745,109	63,437,275	63,129,441	62,821,607	62,513,773	62,205,939	61,898,105	61,590,271	61,282,437	60,974,603	60,666,769	
6.	Average Net Investment		64,206,860	63,899,026	63,591,192	63,283,358	62,975,524	62,667,690	62,359,856	62,052,022	61,744,188	61,436,354	61,128,520	60,820,686	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$374,754	$372,957	$371,161	$369,364	$367,567	$365,770	$363,974	$362,177	$360,380	$358,584	$356,787	$354,990	$4,378,465
	b. Debt Component Grossed Up For Taxes (C)		96,091	95,630	95,170	94,709	94,248	93,787	93,327	92,866	92,405	91,945	91,484	91,023	1,122,685
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)		$778,679	$776,421	$774,165	$771,907	$769,649	$767,391	$765,135	$762,877	$760,619	$758,363	$756,105	$753,847	$9,195,158
	a. Recoverable Costs Allocated to Energy		778,679	776,421	774,165	771,907	769,649	767,391	765,135	762,877	760,619	758,363	756,105	753,847	9,195,158
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		778,679	776,421	774,165	771,907	769,649	767,391	765,135	762,877	760,619	758,363	756,105	753,847	9,195,158
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)		$778,679	$776,421	$774,165	$771,907	$769,649	$767,391	$765,135	$762,877	$760,619	$758,363	$756,105	$753,847	$9,195,158

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 7.0040% 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 1.7959% 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. 20170007-EI
ECRC 2018 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 2018 to December 2018

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		$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)	$81,764,602	$81,764,602	$81,764,602	$81,764,602	$81,764,602	$81,764,602	$81,764,602	$81,764,602	$81,764,602	$81,764,602	$81,764,602	$81,764,602	$81,764,602	
3.	Less: Accumulated Depreciation	(27,938,697)	(28,190,771)	(28,442,845)	(28,694,919)	(28,946,993)	(29,199,067)	(29,451,141)	(29,703,215)	(29,955,289)	(30,207,363)	(30,459,437)	(30,711,511)	(30,963,585)	
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)	$53,825,905	53,573,831	53,321,757	53,069,683	52,817,609	52,565,535	52,313,461	52,061,387	51,809,313	51,557,239	51,305,165	51,053,091	50,801,017	
6.	Average Net Investment		53,699,868	53,447,794	53,195,720	52,943,646	52,691,572	52,439,498	52,187,424	51,935,350	51,683,276	51,431,202	51,179,128	50,927,054	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$313,428	$311,957	$310,486	$309,014	$307,543	$306,072	$304,601	$303,129	$301,658	$300,187	$298,716	$297,244	$3,664,035
	b. Debt Component Grossed Up For Taxes (C)		80,366	79,989	79,612	79,235	78,857	78,480	78,103	77,726	77,348	76,971	76,594	76,217	939,498
8.	Investment Expenses														
	a. Depreciation (D)		$252,074	$252,074	$252,074	$252,074	$252,074	$252,074	$252,074	$252,074	$252,074	$252,074	$252,074	$252,074	$3,024,888
	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)		$645,868	$644,020	$642,172	$640,323	$638,474	$636,626	$634,778	$632,929	$631,080	$629,232	$627,384	$625,535	$7,628,421
	a. Recoverable Costs Allocated to Energy		645,868	644,020	642,172	640,323	638,474	636,626	634,778	632,929	631,080	629,232	627,384	625,535	7,628,421
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		645,868	644,020	642,172	640,323	638,474	636,626	634,778	632,929	631,080	629,232	627,384	625,535	7,628,421
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)		$645,868	$644,020	$642,172	$640,323	$638,474	$636,626	$634,778	$632,929	$631,080	$629,232	$627,384	$625,535	$7,628,421

Notes:
(A) Applicable depreciable base for Big Bend; account 311.53 ($21,689,422), 312.53 ($45,559,543), 315.53 ($13,690,954), and 316.53 ($824,684).
(B) Line 6 x 7.0040% 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 1.7959% 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

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DOCKET NO. 20170007-EI
ECRC 2018 PROJECTION, FORM 42-4P
EXHIBIT NO. PAR-3, DOCUMENT NO. 4, PAGE 20 OF 26

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2018 to December 2018

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)	$65,312,615	$65,312,615	$65,312,615	$65,312,615	$65,312,615	$65,312,615	$65,312,615	$65,312,615	$65,312,615	$65,312,615	$65,312,615	$65,312,615	$65,312,615	
3.	Less: Accumulated Depreciation	(22,513,773)	(22,701,483)	(22,889,193)	(23,076,903)	(23,264,613)	(23,452,323)	(23,640,033)	(23,827,743)	(24,015,453)	(24,203,163)	(24,390,873)	(24,578,583)	(24,766,293)	
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)	$42,798,842	42,611,132	42,423,422	42,235,712	42,048,002	41,860,292	41,672,582	41,484,872	41,297,162	41,109,452	40,921,742	40,734,032	40,546,322	
6.	Average Net Investment		42,704,987	42,517,277	42,329,567	42,141,857	41,954,147	41,766,437	41,578,727	41,391,017	41,203,307	41,015,597	40,827,887	40,640,177	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$249,255	$248,159	$247,064	$245,968	$244,872	$243,777	$242,681	$241,586	$240,490	$239,394	$238,299	$237,203	$2,918,748
	b. Debt Component Grossed Up For Taxes (C)		63,912	63,631	63,350	63,069	62,788	62,507	62,226	61,945	61,664	61,383	61,102	60,821	748,398
8.	Investment Expenses														
	a. Depreciation (D)		$187,710	$187,710	$187,710	$187,710	$187,710	$187,710	$187,710	$187,710	$187,710	$187,710	$187,710	$187,710	$2,252,520
	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)		$500,877	$499,500	$498,124	$496,747	$495,370	$493,994	$492,617	$491,241	$489,864	$488,487	$487,111	$485,734	$5,919,666
	a. Recoverable Costs Allocated to Energy		500,877	499,500	498,124	496,747	495,370	493,994	492,617	491,241	489,864	488,487	487,111	485,734	5,919,666
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		500,877	499,500	498,124	496,747	495,370	493,994	492,617	491,241	489,864	488,487	487,111	485,734	5,919,666
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)		$500,877	$499,500	$498,124	$496,747	$495,370	$493,994	$492,617	$491,241	$489,864	$488,487	$487,111	$485,734	$5,919,666

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 ($558,138).
(B) Line 6 x 7.0040% 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 1.7959% 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

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2018 to December 2018

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														
	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)	$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	(4,600,662)	(4,651,971)	(4,703,280)	(4,754,589)	(4,805,898)	(4,857,207)	(4,908,516)	(4,959,825)	(5,011,134)	(5,062,443)	(5,113,752)	(5,165,061)	(5,216,370)	
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)	$19,736,045	19,684,736	19,633,427	19,582,118	19,530,809	19,479,500	19,428,191	19,376,882	19,325,573	19,274,264	19,222,955	19,171,646	19,120,337	
6.	Average Net Investment		19,710,391	19,659,082	19,607,773	19,556,464	19,505,155	19,453,846	19,402,537	19,351,228	19,299,919	19,248,610	19,197,301	19,145,992	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		$115,043	$114,744	$114,444	$114,145	$113,845	$113,546	$113,246	$112,947	$112,647	$112,348	$112,048	$111,749	$1,360,752
	b. Debt Component Grossed Up For Taxes (C)		29,498	29,421	29,345	29,268	29,191	29,114	29,038	28,961	28,884	28,807	28,730	28,654	348,911
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)		$195,850	$195,474	$195,098	$194,722	$194,345	$193,969	$193,593	$193,217	$192,840	$192,464	$192,087	$191,712	$2,325,371
	a. Recoverable Costs Allocated to Energy		195,850	195,474	195,098	194,722	194,345	193,969	193,593	193,217	192,840	192,464	192,087	191,712	2,325,371
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		195,850	195,474	195,098	194,722	194,345	193,969	193,593	193,217	192,840	192,464	192,087	191,712	2,325,371
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)		$195,850	$195,474	$195,098	$194,722	$194,345	$193,969	$193,593	$193,217	$192,840	$192,464	$192,087	$191,712	$2,325,371

Notes:
(A) Applicable depreciable base for Big Bend; account 312.45 ($22,880,499) and 312.44 ($1,456,209).
(B) Line 6 x 7.0040% 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 1.7959% 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

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DOCKET NO. 20170007-EI
ECRC 2018 PROJECTION, FORM 42-4P
EXHIBIT NO. PAR-3, DOCUMENT NO. 4,PAGE 22 OF 26

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2018 to December 2018

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	$350,000	$0	$0	$40,000	$0	$0	$0	$0	$0	$390,000
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	40,000	40,000
	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)	8,586,395	8,586,395	8,586,395	8,586,395	8,586,395	8,586,395	8,586,395	8,586,395	8,586,395	8,586,395	8,586,395	8,586,395	8,626,395	
3.	Less: Accumulated Depreciation	(1,155,720)	(1,177,599)	(1,199,478)	(1,221,357)	(1,243,236)	(1,265,115)	(1,286,994)	(1,308,873)	(1,330,752)	(1,352,631)	(1,374,510)	(1,396,389)	(1,418,268)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	350,000	350,000	350,000	390,000	390,000	390,000	390,000	390,000	350,000	
5.	Net Investment (Lines 2 + 3 + 4)	$7,430,675	7,408,796	7,386,917	7,365,038	7,693,159	7,671,280	7,649,401	7,667,522	7,645,643	7,623,764	7,601,885	7,580,006	7,558,127	
6.	Average Net Investment		7,419,736	7,397,857	7,375,978	7,529,099	7,682,220	7,660,341	7,658,462	7,656,583	7,634,704	7,612,825	7,590,946	7,569,067	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		43,307	43,179	43,051	43,945	44,839	44,711	44,700	44,689	44,561	44,434	44,306	44,178	529,900
	b. Debt Component Grossed Up For Taxes (C)		11,104	11,072	11,039	11,268	11,497	11,464	11,462	11,459	11,426	11,393	11,360	11,328	135,872
8.	Investment Expenses														
	a. Depreciation (D)		21,879	21,879	21,879	21,879	21,879	21,879	21,879	21,879	21,879	21,879	21,879	21,879	262,548
	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)		76,290	76,130	75,969	77,092	78,215	78,054	78,041	78,027	77,866	77,706	77,545	77,385	928,320
	a. Recoverable Costs Allocated to Energy		76,290	76,130	75,969	77,092	78,215	78,054	78,041	78,027	77,866	77,706	77,545	77,385	928,320
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		76,290	76,130	75,969	77,092	78,215	78,054	78,041	78,027	77,866	77,706	77,545	77,385	928,320
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)		$76,290	$76,130	$75,969	$77,092	$78,215	$78,054	$78,041	$78,027	$77,866	$77,706	$77,545	$77,385	$928,320

Notes:
(A) Applicable depreciable base for Big Bend and Polk; accounts 312.44 ($3,427,481), 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 ($50,784), 311.40 ($13,216), 345.81 ($42,232), and 312.54 ($210,295)
(B) Line 6 x 7.0040% 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 1.7959% 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

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Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2018 to December 2018

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	(34,472)	(34,396)	(34,396)	(34,396)	(34,318)	(34,318)	(34,318)	(34,242)	(34,242)	(34,242)	(34,161)	(34,161)	(34,161)	
3.	Total Working Capital Balance	($34,472)	(34,396)	(34,396)	(34,396)	(34,318)	(34,318)	(34,318)	(34,242)	(34,242)	(34,242)	(34,161)	(34,161)	(34,161)	
4.	Average Net Working Capital Balance		($34,434)	($34,396)	($34,396)	($34,357)	($34,318)	($34,318)	($34,280)	($34,242)	($34,242)	($34,202)	($34,161)	($34,161)	
5.	Return on Average Net Working Capital Balance														
	a. Equity Component Grossed Up For Taxes (A)		($201)	($201)	($201)	($201)	($200)	($200)	($200)	($200)	($200)	($200)	($199)	($199)	($2,402)
	b. Debt Component Grossed Up For Taxes (B)		(52)	(51)	(51)	(51)	(51)	(51)	(51)	(51)	(51)	(51)	(51)	(51)	(613)
6.	Total Return Component		(253)	(252)	(252)	(252)	(251)	(251)	(251)	(251)	(251)	(251)	(250)	(250)	(3,015)
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		730	764	798	708	792	788	707	791	790	712	777	795	9,151
8.	Net Expenses (D)		730	764	798	708	792	788	707	791	790	712	777	795	9,151
9.	Total System Recoverable Expenses (Lines 6 + 8)		$477	$512	$546	$456	$541	$537	$456	$540	$539	$461	$527	$545	$6,136
	a. Recoverable Costs Allocated to Energy		477	512	546	456	541	537	456	540	539	461	527	545	6,136
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		477	512	546	456	541	537	456	540	539	461	527	545	6,137
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)		$477	$512	$546	$456	$541	$537	$456	$540	$539	$461	$527	$545	$6,137

Notes:
(A) Line 6 x 7.0040% 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 1.7959% 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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Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2018 to December 2018

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)	21,467,359	21,467,359	21,467,359	21,467,359	21,467,359	21,467,359	21,467,359	21,467,359	21,467,359	21,467,359	21,467,359	21,467,359	21,467,359	
3.	Less: Accumulated Depreciation	(1,909,779)	(1,961,658)	(2,013,537)	(2,065,416)	(2,117,295)	(2,169,174)	(2,221,053)	(2,272,932)	(2,324,811)	(2,376,690)	(2,428,569)	(2,480,448)	(2,532,327)	
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)	$19,557,580	19,505,701	19,453,822	19,401,943	19,350,064	19,298,185	19,246,306	19,194,427	19,142,548	19,090,669	19,038,790	18,986,911	18,935,032	
6.	Average Net Investment		19,531,641	19,479,762	19,427,883	19,376,004	19,324,125	19,272,246	19,220,367	19,168,488	19,116,609	19,064,730	19,012,851	18,960,972	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		114,000	113,697	113,394	113,091	112,788	112,486	112,183	111,880	111,577	111,274	110,972	110,669	1,348,011
	b. Debt Component Grossed Up For Taxes (C)		29,231	29,153	29,075	28,998	28,920	28,843	28,765	28,687	28,610	28,532	28,454	28,377	345,645
8.	Investment Expenses														
	a. Depreciation (D)		51,879	51,879	51,879	51,879	51,879	51,879	51,879	51,879	51,879	51,879	51,879	51,879	622,548
	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)		195,110	194,729	194,348	193,968	193,587	193,208	192,827	192,446	192,066	191,685	191,305	190,925	2,316,204
	a. Recoverable Costs Allocated to Energy		195,110	194,729	194,348	193,968	193,587	193,208	192,827	192,446	192,066	191,685	191,305	190,925	2,316,204
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		195,110	194,729	194,348	193,968	193,587	193,208	192,827	192,446	192,066	191,685	191,305	190,925	2,316,204
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)		$195,110	$194,729	$194,348	$193,968	$193,587	$193,208	$192,827	$192,446	$192,066	$191,685	$191,305	$190,925	$2,316,204

Notes:
(A) Applicable depreciable base for Big Bend; accounts 311.40
(B) Line 6 x 7.0040% 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 1.7959% 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 2018 to December 2018

Return on Capital Investments, Depreciation and Taxes
For Project: Big Bend 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		$183,333	$183,333	$183,333	$183,333	$183,333	$183,333	$183,333	$183,333	$183,333	$183,333	$183,333	$183,333	$2,200,000
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	2,530,200	2,530,200
	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)	863,460	863,460	863,460	863,460	863,460	863,460	863,460	863,460	863,460	863,460	863,460	863,460	3,393,660	
3.	Less: Accumulated Depreciation	(8,728)	(10,747)	(12,766)	(14,785)	(16,804)	(18,823)	(20,842)	(22,861)	(24,880)	(26,899)	(28,918)	(30,937)	(32,956)	
4.	CWIP - Non-Interest Bearing	330,200	513,533	696,867	880,200	1,063,533	1,246,867	1,430,200	1,613,533	1,796,867	1,980,200	2,163,533	2,346,867	0	
5.	Net Investment (Lines 2 + 3 + 4)	$1,184,932	1,366,246	1,547,561	1,728,875	1,910,189	2,091,504	2,272,818	2,454,132	2,635,447	2,816,761	2,998,075	3,179,390	3,360,704	
6.	Average Net Investment		1,275,589	1,456,904	1,638,218	1,819,532	2,000,847	2,182,161	2,363,475	2,544,790	2,726,104	2,907,418	3,088,733	3,270,047	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		7,445	8,503	9,562	10,620	11,678	12,737	13,795	14,853	15,911	16,970	18,028	19,086	159,188
	b. Debt Component Grossed Up For Taxes (C)		1,909	2,180	2,452	2,723	2,994	3,266	3,537	3,808	4,080	4,351	4,623	4,894	40,817
8.	Investment Expenses														
	a. Depreciation (D)		2,019	2,019	2,019	2,019	2,019	2,019	2,019	2,019	2,019	2,019	2,019	2,019	24,228
	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)		11,373	12,702	14,033	15,362	16,691	18,022	19,351	20,680	22,010	23,340	24,670	25,999	224,233
	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		11,373	12,702	14,033	15,362	16,691	18,022	19,351	20,680	22,010	23,340	24,670	25,999	224,233
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
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)		11,373	12,702	14,033	15,362	16,691	18,022	19,351	20,680	22,010	23,340	24,670	25,999	224,233
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		$11,373	$12,702	$14,033	$15,362	$16,691	$18,022	$19,351	$20,680	$22,010	$23,340	$24,670	$25,999	$224,233

Notes:
(A) Applicable depreciable base for Big Bend; accounts 312.44 ($723,460), 311.40 ($2,530,200), and 311.44 ($140,000
(B) Line 6 x 7.0040% 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 1.7959% x 1/12.
(D) Applicable depreciation rates are 3.0%, 2.9%, and 1.8%
(E) Line 9a x Line 10
(F) Line 9b x Line 11

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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 2017 through December 2017, is $1,098,902 compared to the original projection of $1,104,032. The variance is not material.

The actual/estimated O&M expense for the period January 2017 through December 2017 is $5,097,935 compared to the original projection of $5,539,740. The variance is not material.

Progress Summary: This project was approved by the Commission in Docket No. 19960688-EI, Order No. PSC-1996-1048-FOF-EI, issued August 14, 1996. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018, is $1,063,216.

Estimated O&M costs for the period January 2018 through December 2018 are $4,423,789.

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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 2017 through December 2017 is $276,598 compared to the original projection of $277,137. The variance is not material.

The actual/estimated O&M expense for this project for the period January 2017 through December 2017 is $0 and did not vary from the original projection.

Progress Summary: This project was approved by the Commission in Docket No. 19960688-EI, Order No. PSC-1996-1048-FOF-EI, issued August 14, 1996. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $280,951.

There are no O&M costs projected for the period of January 2018 through December 2018.

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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 2017 through December 2017 is $57,669 compared to the original projection of $57,868. The variance is not material.

Progress Summary: This project was approved by the Commission in Docket No. 19960688-EI, Order No. PSC-1996-1048-FOF-EI, issued August 14, 1996. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $55,016.

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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 2017 through December 2017 is $89,946 compared to the original projection of $90,195. The variance is not material.

Progress Summary: This project was approved by the Commission in Docket No. 19980007-EI, Order No. PSC-1998-1764-FOF-EI, issued December 31, 1998. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $85,047.

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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 2017 through December 2017 is $65,159 compared to the original projection of $65,351. The variance is not material.

Progress Summary: This project was approved by the Commission in Docket No. 19980007-EI, Order No. PSC-1998-1764-FOF-EI, issued December 31, 1998. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $61,751.

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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 2017 through December 2017 is $6,857,459 compared to the original projection of $6,866,989. The variance is not material.

The actual/estimated O&M expense for the period January 2017 through December 2017 is $4,539,203 compared to the original estimate of $9,108,893, resulting in a variance of -50.2 percent. This variance is due to Big Bend Units 1 and 2 burning more natural gas and less coal than projected, which reduced the consumables and maintenance needed.

Progress Summary: This project was approved by the Commission in Docket No. 19980693-EI, Order No. PSC-1999-0075-FOF-EI, issued January 11, 1999. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $6,674,906.

Estimated O&M costs for the period January 2018 through December 2018 are $2,200,000.

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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 EPA the authority to request the collection of information necessary for it to study whether it is appropriate and necessary to develop performance of 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 2017 through December 2017, is $9,760 compared to the original projection of $9,802. The variance is not material.

Progress Summary: This project was approved by the Commission in Docket No. 19990976-EI, Order No. PSC-1999-2103-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 2018 through December 2018 is $9,406.

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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 performed.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2017 through December 2017 is $1,714,824 compared to the original projection of $1,722,805. The variance is not material.

Progress Summary: This project was approved by the Commission in Docket No. 20000685-EI, Order No. PSC-2000-1906-PAA-EI, issued October 18, 2000. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $1,712,875.

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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 make O&M and capital expenditures.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2017 through December 2017 is $2,063,180 compared to the original projection of $2,046,961. The variance is not material.

The actual/estimated O&M expense for the period January 2017 through December 2017 is $920,018 compared to the original projection of $611,283, resulting in a variance of 50.5 percent. This variance is due to an increase in maintenance associated with insulator repairs and cleaning or replacement of insulation and lagging.

Progress Summary: This project was approved by the Commission in Docket No. 20001186-EI, Order No. PSC-2000-2104-PAA-EI, issued November 6, 2000. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $1,989,614.

Estimated O&M costs for the period January 2018 through December 2018 are $611,283.

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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 2017 through December 2017 is $576,255 compared to the original projection of $579,360. The variance is not material.

The actual/estimated O&M expense for the period January 2017 through December 2017 is $416,153 compared to the original projection of $100,000, resulting in a variance of 316.2 percent. This variance is due to greater than expected maintenance costs associated with the repair of air dampers.

Progress Summary: This project was approved by the Commission in Docket No. 20001186-EI, Order No. PSC-2000-2104-PAA-EI, issued November 6, 2000. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $562,354.

Estimated O&M costs for the period January 2018 through December 2018 are $138,956.

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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 2017 through December 2017 is $37,488 compared to the original projection of $37,627. The variance is not material.

Progress Summary: This project was approved by the Commission in Docket No. 19980007-EI, Order No. PSC-1998-0408-FOF-EI, issued March 18, 1998. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is projected to be $35,856.

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

Project Description:

The Big Bend Fuel Oil Tank No. 2 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 2017 through December 2017 is $61,658 compared to the original projection of $61,886. The variance is not material.

Progress Summary: This project was approved by the Commission in Docket No. 19980007-EI, Order No. PSC-1998-0408-FOF-EI, issued March 18, 1998. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $58,969.

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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 2017 through December 2017 is ($3,070) compared to the original projection of ($3,084). The variance is not material.

The actual/estimated O&M for the period January 2017 through December 2017 is $4,339 compared to the original projection of $8,990, resulting in a variance of -51.7 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 2018 through December 2018 is ($3,015).

Estimated O&M costs for the period January 2018 through December 2018 are $9,151.

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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 and Bayside Stations are affected by this rule.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated O&M expense for the period January 2017 through December 2017 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 2018 through December 2018 are $34,500.

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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 2017 through December 2017 is $0 and did not vary from the original projection.

Progress Summary: This project was approved by the Commission in Docket No. 20010593-EI, Order No. PSC-2001-1847-PAA-EI on September 4, 2001. The project is complete and in service.

Projections: There are no O&M costs projected for the period of January 2018 through December 2018.

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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 2017 through December 2017 is $128,558 compared to the original projection of $129,067. The variance is not material.

The actual/estimated O&M for the period January 2017 through December 2017 is $24,114 compared to the original projection of $20,000. The variance is not material.

Progress Summary: This project was approved by the Commission in Docket No. 20020726-EI, Order No. PSC-2002-1445-PAA-EI on October 21, 2002. The project is complete and in service.

Project Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $123,356.

Estimated O&M costs for the period January 2018 through December 2018 are $19,988.

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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 2017 through December 2017 is $92,288, compared to the original projection of $204,000, resulting in a variance of -54.8 percent. This variance is due to the Bayside units' re-projected run time being less than originally projected, resulting in less ammonia consumption.

Progress Summary: This project was approved by the Commission in Docket No. 20021255-EI, Order No. PSC-2003-0469-PAA-EI, issued April 4, 2003. Annual O&M expenses will continue to be incurred.

Projections: Estimated O&M costs for the period January 2018 through December 2018 are projected to be $203,882.

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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 2017 through December 2017 is $226,319 compared to the original projection of $227,337. The variance is not material.

The actual/estimated O&M expense for this project for the period January 2017 through December 2017 is $6,000, compared to the original projection of $37,200, resulting in a variance of -83.9 percent. The actual/estimated maintenance cost associated with this project is less than what was originally projected because less maintenance work was needed than projected.

Progress Summary: This project was approved by the Commission in Docket No. 20030226-EI, Order No. PSC-2003-0684-PAA-EI, issued June 6, 2003. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $218,523.

Estimated O&M costs for the period January 2018 through December 2018 is $37,200.

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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 2017 through 2018. Thus, the installation of cost-effective SCR technology on the generating units was necessary to meet NO_x emissions requirements. 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 2017 through December 2017 is $156,044 compared to the original projection of $156,654. The variance is not material.

The actual/estimated O&M expense for this project for the period January 2017 through December 2017 is $38,810, compared to the original projection of $37,200. The variance is not material.

Progress Summary: This project was approved by the Commission in Docket No. 20040750-EI, Order No. PSC-2004-1080-CO-EI, issued November 4, 2004. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $149,608.

Estimated O&M costs for the period of January 2018 through December 2018 is are $37,200.

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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 2017 through 2018. Thus, the installation of cost-effective SCR technology on the generating units was necessary to meet NO_x emissions requirements. 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 2017 through December 2017 is $148,634 compared to the original projection of $149,245. The variance is not material.

The actual/estimated O&M expense for this project for the period January 2017 through December 2017 is $21,733, compared to the original projection of $37,200, resulting in a variance of -41.6 percent. The actual/estimated maintenance cost associated with this project is less than what was originally projected because less maintenance work was needed than projected.

Progress Summary: This project was approved by the Commission in Docket No. 20040750-EI, Order No. PSC-2004-1080-CO-EI, issued November 4, 2004. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $142,854.

Estimated O&M costs for the period of January 2018 through December 2018 is are $37,200.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2018 through December 2018
Description and Progress Report for
Environmental Compliance Activities and Projects

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 2017 through 2018. Thus, the installation of cost-effective SCR technology on the generating units was necessary to meet NO_x emissions requirements. 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 2017 through December 2017 is $265,762 compared to the original projection of $266,918. The variance is not material.

The actual/estimated O&M for the period January 2017 through December 2017 is $7,540 compared to the original projection of $37,200, resulting in a variance of -79.7 percent. The actual/estimated maintenance cost associated with this project is less than what was originally projected because less maintenance work was needed than projected.

Progress Summary: This project was approved by the Commission in Docket No. 20040750-EI, Order No. PSC-2004-1080-CO-EI, issued November 4, 2004. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $256,173.

Estimated O&M costs for the period of January 2018 through December 2018 is are $37,200

Tampa Electric Company
Environmental Cost Recovery Clause
January 2018 through December 2018
Description and Progress Report for
Environmental Compliance Activities and Projects

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 Bayside and Big Bend 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 2017 through December 2017 is $455,438 compared to the original projection of $948,000, resulting in a variance of -52.0 percent. The National Pollutant Discharge Elimination System ("NPDES") permit renewal for Big Bend Station has not yet been finalized, so a portion of the variance is related to uncertainty regarding the timing of the final requirements and associated monitoring data and reporting that must be submitted once the permit is finalized. The remainder of the variance is driven by the scope of the studies at Bayside Station being refined as Tampa Electric was able to utilize other biological studies for compliance with this requirement.

Progress Summary: This project was approved by the Commission in Docket No. 20041300-EI, Order No. PSC-2005-0164-PAA-EI, issued February 10, 2005. The project is complete and in service.

Projections: Estimated O&M costs for the period January 2018 through December 2018 are $321,000.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2018 through December 2018
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 2017 through 2018. The installation of cost-effective SCR technology on the generating units was necessary to meet NO_x emissions requirements.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2017 through December 2017 is $9,020,389 compared to the original projection of $8,949,332. The variance is not material.

The actual/estimated O&M for the period January 2017 through December 2017 is $970,483 compared to the original projection of $1,771,104, resulting in a variance of -45.2 percent. This variance is due to greater use of natural gas and reduced use of coal, which reduced the unit's need for consumables and maintenance work, compared to the original projection.

Progress Summary: This project was approved by the Commission in Docket No. 20041376-EI, Order No. PSC-2005-0616-CO-EI, issued June 3, 2005. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $8,698,396.

Estimated O&M costs for the period January 2018 through December 2018 are $1,498,585.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2018 through December 2018
Description and Progress Report for
Environmental Compliance Activities and Projects

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 2017 through 2018. The installation of cost-effective SCR technology on the generating units was necessary to meet NO_x emissions requirements.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2017 through December 2017 is $9,561,175 compared to the original projection of $9,600,999. The variance is not material.

The actual/estimated O&M for the period January 2017 through December 2017 is $1,750,284 compared to the original projection of $2,076,788, resulting in a variance of -15.7 percent. This variance is due to greater use of natural gas and reduced use of coal, reducing the use of consumables and need for maintenance work, compared to the original projection.

Progress Summary: This project was approved by the Commission in Docket No. 20041376-EI, Order No. PSC-2005-0616-CO-EI, issued June 3, 2005. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $9,165,158.

Estimated O&M costs for the period January 2018 through December 2018 are $1,629,977.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2018 through December 2018
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 2017 through 2018. The installation of cost-effective SCR technology on the generating units was necessary to meet NO_x emissions requirements.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2017 through December 2017 is $7,913,597 compared to the original projection of $7,888,405. The variance is not material.

The actual/estimated O&M for the period January 2017 through December 2017 is $1,221,848 compared to the original projection of $1,865,423, resulting in a variance of -34.5 percent. This variance is due to greater use of natural gas and reduced use of coal, reducing the amount of consumables and maintenance work needed, compared to the original projection.

Progress Summary: This project was approved by the Commission in Docket No. 20041376-EI, Order No. PSC-2005-0616-CO-EI, issued June 3, 2005. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $7,628,421.

Estimated O&M costs for the period January 2018 through December 2018 are $1,694,774.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2018 through December 2018
Description and Progress Report for
Environmental Compliance Activities and Projects

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 2017 through 2018. The installation of cost-effective SCR technology on the generating units was necessary to meet NO_x emissions requirements.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2017 through December 2017 is $6,145,021 compared to the original projection of $6,171,115. The variance is not material.

The actual/estimated O&M for the period January 2017 through December 2017 is $835,207 compared to the original projection of $1,086,684, resulting in a variance of -23.1 percent. This variance is due to the greater use of natural gas and reduced use of coal, reducing the need for consumables and maintenance work, compared to the original projection.

Progress Summary: This project was approved by the Commission in Docket No. 20040750-EI, Order No. PSC-2004-0986-PAA-EI, issued October 11, 2004. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $5,919,666.

Estimated O&M costs for the period January 2018 through December 2018 are $1,061,162.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2018 through December 2018
Description and Progress Report for
Environmental Compliance Activities and Projects

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 2017 through December 2017 is $57,227 compared to the original projection of $25,000, resulting in a variance of 128.9 percent. The Big Bend Station Arsenic Plan of Study is nearly complete and was submitted to FDEP for their review; however, the scope of needed remediation activities is still uncertain. The variance is due to costs associated with implementation of the Plan of Study, evaluation of the results, and preparation of the final report. These additional costs were not originally anticipated to occur in 2017.

Progress Summary: This project was approved by the Commission in Docket No. 20050683-EI, Order No. PSC-2006-0138-PAA-EI, issued February 23, 2006. The project is complete and in service.

Projections: Estimated O&M costs for the period January 2018 through December 2018 are $0.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2018 through December 2018
Description and Progress Report for
Environmental Compliance Activities and Projects

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 2017 through December 2017 is $2,391,870 compared to the original projection of $2,404,002. The variance is not material.

Progress Summary: This project was approved by the Commission in Docket No. 20050598-EI, Order No. PSC-2006-0602-PAA-EI, issued July 10, 2006. The project is complete and in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $2,325,371.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2018 through December 2018
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 2017 through December 2017 is $932,645 compared to the original projection of $941,252. The variance is not material.

The actual/estimated O&M for the period January 2017 through December 2017 is $68,459 compared to the original projection of $231,000, resulting in a variance of -70.4 percent. Tampa Electric had planned on replacing the sorbent traps and mercury probes in 2017; however, it was not necessary to replace these items in 2017.

Progress Summary: This project was approved by the Commission in Docket No. 20120302-EI, Order No. PSC-2013-0191-PAA-EI, issued May 6, 2013. The project is in service.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is projected to be $928,320.

Estimated O&M costs for the period January 2018 through December 2018 are projected to be $231,000.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2018 through December 2018
Description and Progress Report for
Environmental Compliance Activities and Projects

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 2017 through December 2017 is $93,149 compared to the original projection of $90,000. The variance is not material.

Progress Summary: This project was approved by the Commission in Docket No. 20090508-EI, Order No. PSC-2010-0157-PAA-EI, issued March 22, 2010. The project is complete and in service.

Projections: Estimated O&M costs for the period January 2018 through December 2018 are $93,149.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2018 through December 2018
Description and Progress Report for
Environmental Compliance Activities and Projects

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 was no longer sufficient to hold the entire gypsum inventory, and Tampa Electric needed an additional storage facility. The new storage facility covers approximately 27 acres and holds approximately 870,000 tons of gypsum.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2017 through December 2017 is $2,383,083 compared to the original projection of $2,394,964. The variance is not material.

The actual/estimated O&M for the period January 2017 through December 2017 is $2,309,206 compared to the original projection of $1,200,000, resulting in a variance of 92.4 percent. This variance is due to an increase in costs for pile maintenance at the east yard, for tasks such as material segregation, gypsum pile grooming, yard arrangement, and truck loading, since the yard is being utilized more than originally projected.

Progress Summary: This project was approved by the Commission in Docket No. 20110262-EI, Order No. PSC-2012-0493-PAA-EI, issued September 26, 2012. The project was placed in service in November 2014.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $2,316,204.

Estimated O&M costs for the period January 2018 through December 2018 are $1,663,000.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2018 through December 2018
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend 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. Compliance activities include placing fugitive emissions dust control plans, increasing inspections, installing new groundwater monitoring wells, and closure of certain impoundments at CCR regulated management units.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2017 through December 2017 is $59,761 compared to the original projection of $270,633 resulting in a variance of -77.9 percent. This variance is due to timing change to refine the scope of planned work; the compliance deadlines allow for the work to be completed in 2018 instead of in 2017 as originally planned.

The actual/estimated O&M for the period January 2017 through December 2017 is $3,626,641 compared to the original projection of $3,700,000. The variance is not material.

Progress Summary: The initial phase of the project was approved by the Commission in Docket No. 20150223-EI, Order No. PSC-2016-0068-PAA-EI, issued February 9, 2016. The company submitted its petition for cost recovery of additional CCR rule compliance activities in Docket No. 20170168-EI on July 28, 2017.

Projections: Estimated depreciation plus return for the period January 2018 through December 2018 is $224,233.

Estimated O&M costs for the period January 2018 through December 2018 are $6,125,000.

Tampa Electric Company
Environmental Cost Recovery Clause
January 2018 through December 2018
Description and Progress Report for
Environmental Compliance Activities and Projects

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. Tampa Electric hired an engineering consulting firm to perform the Big Bend ELG Compliance Study, to be completed in 2017, concluding with a determination of the most appropriate ELG compliance measures identified through the study. The rule was subsequently stayed, and future compliance activities are dependent on new rulemaking.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated O&M for the period January 2017 through December 2017 is $197,012 compared to the original projection of $50,000, resulting in a variance of 294.0 percent. This variance is due to greater than projected costs for the ongoing study to determine which technology will enable Tampa Electric to comply with the ELG Rule.

Progress Summary: This project was approved by the Commission in Docket No. 20160027-EI, Order No. PSC-2016-0248-PAA-EI, issued June 28, 2016.

Projections: Estimated O&M costs for the period January 2018 through December 2018 are $0.

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Energy & Demand Allocation % By Rate Class
January 2018 to December 2018

	(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	54.90%	9,247,032	9,247,032	1,923	1.07913	1.05247	9,732,187	2,075	47.46%	56.37%	55.68%
GS, CS	60.53%	947,710	947,710	179	1.07913	1.05245	997,418	193	4.86%	5.24%	5.21%
GSD, SBF	77.87%	8,247,722	8,232,918	1,209	1.07468	1.04884	8,650,569	1,299	42.18%	35.29%	35.82%
IS	100.93%	911,875	895,479	103	1.02898	1.01784	928,138	106	4.53%	2.88%	3.01%
LS1	291.75%	189,780	189,780	7	1.07913	1.05247	199,737	8	0.97%	0.22%	0.28%
TOTAL *		19,544,119	19,512,919	3,421			20,508,049	3,681	100.00%	100.00%	100.00%

Notes:
(1) Average 12 CP load factor based on 2018 Projected calendar data
(2) Projected MWh sales for the period January 2018 to December 2018
(3) Effective sales at secondary level for the period January 2018 to December 2018.
(4) Column 2 / (Column 1 x 8760)
(5) Based on 2018 projected demand losses.
(6) Based on 2018 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 2018 to December 2018

Rate Class	(1) Percentage of MWh Sales at Generation (%)	(2) 12 CP & 25% 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	47.46%	55.68%	31,396,889	341,595	31,738,484	9,247,032	9,247,032	**0.343**
GS, CS	4.86%	5.21%	3,215,105	31,963	3,247,068	947,710	947,710	**0.343**
GSD, SBF	42.18%	35.82%	27,903,936	219,755	28,123,691	8,247,722	8,232,918	
Secondary								**0.342**
Primary								**0.338**
Transmission								**0.335**
IS	4.53%	3.01%	2,996,795	18,466	3,015,261	911,875	895,479	
Secondary								**0.337**
Primary								**0.333**
Transmission								**0.330**
LS1	0.97%	0.28%	641,698	1,718	643,416	189,780	189,780	**0.339**
TOTAL *	100.00%	100.00%	66,154,423	613,497	66,767,920	19,544,119	19,512,919	**0.342**

* 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. 20170007-EI
ECRC 2018 PROJECTION, FORM 42-7P
EXHIBIT NO. PAR-3, DOCUMENT NO. 7

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Current Period Actual / Estimated Amount
January 2018 to December 2018

Calculation of Revenue Requirement Rate of Return
(In Dollars)

	(1) Jurisdictional Rate Base *Actual May 2017* ($000)	(2) Ratio %	(3) Cost Rate %	(4) Weighted Cost Rate %
Long Term Debt	$ 1,611,554	33.14%	5.12%	1.6968%
Short Term Debt	118,708	2.44%	1.55%	0.0378%
Preferred Stock	0	0.00%	0.00%	0.0000%
Customer Deposits	101,181	2.08%	2.55%	0.0531%
Common Equity	2,031,177	41.77%	10.25%	4.2815%
Accum. Deferred Inc. Taxes & Zero Cost ITC's	988,845	20.34%	0.00%	0.0000%
Deferred ITC - Weighted Cost	11,216	0.23%	7.78%	0.0179%
Total	$ 4,862,681	100.00%		6.09%

ITC split between Debt and Equity:

Long Term Debt	$ 1,611,554	Long Term Debt	42.84%
Short Term Debt	118,708	Short Term Debt	3.16%
Equity - Preferred	0	Equity - Preferred	0.00%
Equity - Common	2,031,177	Equity - Common	54.00%
Total	$ 3,761,439	Total	100.00%

Deferred ITC - Weighted Cost:

Debt = 0.0179% * 46.00%	0.0082%
Equity = 0.0179% * 54.00%	0.0097%
Weighted Cost	0.0179%

Total Equity Cost Rate:

Preferred Stock	0.0000%
Common Equity	4.2815%
Deferred ITC - Weighted Cost	0.0097%
	4.2912%
Times Tax Multiplier	1.632200
Total Equity Component	7.0040%

Total Debt Cost Rate:

Long Term Debt	1.6968%
Short Term Debt	0.0378%
Customer Deposits	0.0531%
Deferred ITC - Weighted Cost	0.0082%
Total Debt Component	1.7959%
	8.7999%

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. 20170007-EI

ENVIRONMENTAL COST RECOVERY FACTORS

PROJECTIONS

JANUARY 2018 THROUGH DECEMBER 2018

TESTIMONY

OF

PAUL L. CARPINONE

FILED: SEPTEMBER 1, 2017

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

PREPARED DIRECT TESTIMONY

OF

PAUL L. 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 and 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 polices 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 2018 through December 2018 projection period are 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 NO_x 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 2018 through December 2018.

A. The Big Bend PM Minimization and Monitoring Program was approved by the Commission in Docket No. 20001186-EI, Order No. PSC-2000-2104-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 2018; however, the O&M expenses associated with existing and recently installed Best Operating Practice (BOP) and best available control technology (BACT) equipment and continued implementation of the BOP procedures are expected to be $611,283.

Q. Please describe the Bid Bend NO_x Emission Reduction program activities and provide the estimated capital and O&M expenses for the period of January 2018 through December 2018.

A. The Big Bend NO_x Emission Reduction program was approved by the Commission in Docket No. 20001186-EI, Order No. PSC-2000-2104-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 2018; however, the company will perform maintenance on the previously approved and installed NO_x reduction equipment. This activity is expected to result in approximately $138,956 of O&M expenses during 2018.

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 2018 through December 2018.

A. In Docket No. 20040750-EI, Order No. PSC-2004-0986-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. 20041376-EI, Order No. PSC-2005-0502-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. Those Pre-SCR technologies include windbox modifications, secondary air controls and coal/air flow controls. The SCR projects at Big Bend Unit 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 2018 through December 2018, 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 2, 3 and 4 SCRs; however, the capital expenditures for Big Bend Unit 1 SCR are projected to be $900,000 for a catalyst replacement. Additionally, the O&M expenses are projected to be $1,498,585 for Big Bend Unit 1 SCR,

$1,629,977 for Big Bend Unit 2 SCR, $1,694,774 for Big Bend Unit 3 SCR and $1,061,162 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 Limitations 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 2018 through December 2018.

A. The Big Bend Unit 3 FGD Integration program was approved by the Commission in Docket No. 19960688-EI, Order No. PSC-1996-1048-FOF-EI, issued August 14, 1996. The Big Bend Units 1 and 2 FGD program was approved by the Commission in Docket No. 19980693-EI, Order No. PSC-1999-0075-FOF-EI, issued January 11, 1999. In these 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 2018 through December 2018 for the Big Bend Unit 3 FGD Integration project; however, O&M expenses are projected to be $4,423,789 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 2018 through December 2018; however, the O&M expenses are projected to be $2,200,000 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 2018 through December 2018.

A. The Gannon Thermal Discharge Study program was approved by the Commission in Docket No. 20010593-EI, Order No. PSC-2001-1847-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 2018 through December 2018, 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. Bayside Power Station will apply for renewal of the National Pollutant Discharge Elimination System (NPDES) Permit in 2018, and at this time, the company anticipates that an additional thermal study will not be required. If a thermal study is required, Tampa Electric will incur O&M expenses and will include them in the true-up filing.

Q. Please describe the Bayside SCR Consumables program activities and provide the estimated O&M expenditures for the period of January 2018 through December 2018.

A. The Bayside SCR Consumables program was approved by the Commission in Docket No. 20021255-EI, Order No. PSC-2003-0469-PAA-EI, issued April 4, 2003. For the period of January 2018 through December 2018, Tampa Electric projects O&M expenses associated with the consumable goods (primarily anhydrous ammonia) to be approximately $203,882.

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 2018 through December 2018.

A. The Clean Water Act Section 316(b) Phase II Study program was approved by the Commission in Docket No. 20041300-EI, Order No. PSC-2005-0164-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 at Big Bend 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. The biological, financial, and technical study elements are underway for Bayside Power Station and will be submitted with the NPDES permit renewal application in February 2018. Retrofits could include the installation of cooling towers or screening facilities. Tampa Electric projects O&M expenditures to be $321,000 for the period of January 2018 through December 2018 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 2018 through December 2018.

A. Tampa Electric's Big Bend FGD System Reliability program was approved by the Commission in Docket No. 20050958-EI, Order No. PSC-2006-0602-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 the SCR systems on the generating units. For the period of January 2018 through December

2018, there are no 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 2018 through December 2018.

A. The Arsenic Groundwater Standard program was approved by the Commission in Docket No. 20050683-EI, Order No. PSC-2006-0138-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 for prudently incurred costs. This groundwater standard applies to Tampa Electric's Bayside, Big Bend and Polk Power Stations.

For the period of January 2018 through December 2018, there are no anticipated O&M expenses at Bayside or Polk Power Stations. Although no O&M expenses are currently anticipated for Big Bend Power Station in 2018, a detailed plan of study is currently underway, which may refine the program's scope of work and require future expenditures.

Q. Please describe the MATS program activities.

A. The MATS program was approved by the Commission in Docket 20120302-EI, Order No. PSC-2013-0191-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 record keeping requirements. Additionally, monitoring of acid gases and particulate matter is 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 MATS program estimated capital and O&M expenditures for the period of January 2018 through December 2018.

A. For 2018, Tampa Electric anticipates capital expenditures of $390,000 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 2018 through December 2018.

A. Tampa Electric's GHG Reduction program was approved by the Commission in Docket No. 20090508-EI, Order No. PSC-2010-0157-PAA-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 for the first time in 2011. Reporting for the EPA's Greenhouse Gas Mandatory Reporting rule will continue in 2018. For 2018, this activity is projected to result in approximately $93,149 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 2018 through December 2018.

A. The Big Bend Gypsum Storage Facility program was approved by the Commission in Docket No. 20110262-EI, Order No. PSC-2012-0493-PAA-EI, issued in 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 2018, Tampa Electric does not anticipate any capital expenditures; however, the projected O&M expenses for this program during 2018 are $1,663,000.

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 2018 through December 2018.

A. On April 17, 2015, the EPA issued a final rule to regulate coal combustion residuals ("CCRs") as non-hazardous 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.

The initial phase of the company's CCR compliance was approved by the Commission in Docket No. 20150223-EI, Order No. PSC-2016-00994-PAA-EI, issued on February 9, 2016. 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 until final closure of these units is complete. 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 2018 are the North and South Economizer Ash impoundments and the slag pond. Work in these areas was originally expected to begin in 2017 and was rescheduled to 2018. This closure project and the closure of the slag pond will begin concurrently in 2018 for efficiency in engineering and construction of these projects. Also in 2018, additional work will be done at the North Gypsum Stackout area, another area where CCRs are managed 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.

On July 28, 2017, in Docket No. 20170168-EI, Tampa Electric requested approval for recovery of costs to close the Big Bend Economizer Ash & Pyrites Ponds ("EAPP"). The engineering and scope studies for the EAPP closure were previously approved by the Commission and have now been completed. The cost estimates provided for the EAPP closure are based on the clean closure option, including disposal of CCRs excavated from these impoundments. After the disposal activities are completed, the company will incur restoration and post-closure monitoring costs, which will be included in future year projected costs.

Tampa Electric anticipates $2,200,000 for capital expenditures and $6,125,000 for O&M expenses for the CCR projects described above. However, project engineering will include more detailed cost evaluations, and these projections will continue to be refined.

Q. Please describe Tampa Electric's Effluent Limitations Guidelines activities and provide the estimated O&M expenditures for the period of January 2018 through December 2018.

A. On November 3, 2015, the EPA published the final Steam Electric Power Generating Effluent Limitations Guidelines ("ELG"), 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 to achieve compliance with the new EPA regulations. The rule requires compliance after November 1, 2018, but no later than December 31, 2023. EPA issued a temporary stay of these compliance deadlines (beginning April 25, 2017) for certain waste streams, including FGD wastewater.

On June 6, 2017, the EPA issued proposed rulemaking to postpone these deadlines until it has completed reconsideration of the 2015 rule. On August 11, 2017, EPA issued a letter to the Utility Water Act Group (UWAG) and the U.S. Small Business Association regarding their petitions to the EPA requesting reconsideration of the rule. In this letter, EPA stated that it would be appropriate to conduct rulemaking to "potentially revise" the limitations for bottom ash transport water and FGD wastewater. Compliance deadlines for these waste streams remain stayed at this time.

The ELG program was approved by the Commission in Docket No. 20160027-EI, Order No. PSC-2016-0248-PAA-EI, issued on June 28, 2016. In that Order, the Commission found that the program meets the requirements for recovery through the ECRC. However, due to the temporary stay and the intent by EPA to initiate rulemaking, Tampa Electric does not anticipate any O&M expenditures for the period January 2018 through December 2018.

Q. Please summarize your testimony.

A. The settlement agreements Tampa Electric had with FDEP and EPA required significant reductions in emissions from Big Bend and Gannon Power Stations. These settlement agreements 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 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 2018. Additionally, my testimony identified other projects that are required for Tampa Electric to meet environmental requirements, and I provided the associated 2018 activities and projected expenditures.

Q. Does this conclude your direct testimony?

A. Yes, it does.