

# AUSLEY McMULLEN

ATTORNEYS AND COUNSELORS AT LAW

123 SOUTH CALHOUN STREET  
P.O. BOX 391 (ZIP 32302)  
TALLAHASSEE, FLORIDA 32301  
(850) 224-9115 FAX (850) 222-7560

August 28, 2020

**VIA: ELECTRONIC FILING**

Mr. Adam J. Teitzman  
Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

Re: Environmental Cost Recovery Clause  
FPSC Docket No. 20200007-EI

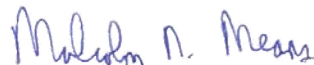
Dear Mr. Teitzman:

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 of M. Ashley Sizemore regarding Environmental Cost Recovery Clause 2021 Projections.
3. Prepared Direct Testimony of Byron T. Burrows regarding Environmental Cost Recovery Clause 2021 Projections.

Thank you for your assistance in connection with this matter.

Sincerely,



Malcolm N. Means

MNM/bmp  
Attachments

cc: All Parties of Record (w/attachment)

## CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Petition and Testimonies, filed on behalf of Tampa Electric Company, has been furnished by electronic mail on this 28th day of August 2020 to the following:

Mr. Charles W. Murphy  
Office of the General Counsel  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850  
[cmurphy@psc.state.fl.us](mailto:cmurphy@psc.state.fl.us)

Mr. Matthew R. Bernier  
Duke Energy Florida, Inc.  
106 East College Avenue, Suite 800  
Tallahassee, FL 32301-7740  
[matthew.bernier@duke-energy.com](mailto:matthew.bernier@duke-energy.com)

Ms. Dianne M. Triplett  
Duke Energy Florida, Inc.  
299 First Avenue North  
St. Petersburg, FL 33701  
[dianne.triplett@duke-energy.com](mailto:dianne.triplett@duke-energy.com)  
[FLRegulatoryLegal@duke-energy.com](mailto:FLRegulatoryLegal@duke-energy.com)

Ms. Maria Moncada, Senior Attorney  
David Lee, Senior Attorney  
Florida Power & Light Company  
700 Universe Boulevard  
Juno Beach, FL 33408-0420  
[maria.moncada@fpl.com](mailto:maria.moncada@fpl.com)  
[David.lee@fpl.com](mailto:David.lee@fpl.com)

Mr. Kenneth Hoffman  
Vice President, Regulatory Relations  
Florida Power & Light Company  
215 South Monroe Street, Suite 810  
Tallahassee, FL 32301-1858  
[ken.hoffman@fpl.com](mailto:ken.hoffman@fpl.com)

Mr. Russell A. Badders  
Vice President & Associate General Counsel  
Gulf Power Company  
One Energy Place  
Pensacola, FL 32520-0100  
[Russell.Badders@nexteraenergy.com](mailto:Russell.Badders@nexteraenergy.com)

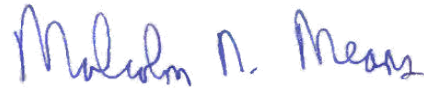
Mr. Steven R. Griffin  
Beggs & Lane  
Post Office Box 12950  
Pensacola, FL 32591  
[srg@beggslane.com](mailto:srg@beggslane.com)

Ms. Patricia Christensen  
J.R. Kelly  
Charles J. Rehwinkel  
Thomas A. (Tad) David  
Mireille Fall-Fry  
Stephanie Morse  
Office of Public Counsel  
111 West Madison Street – Room 812  
Tallahassee, FL 32399-1400  
[christensen.patty@leg.state.fl.us](mailto:christensen.patty@leg.state.fl.us)  
[kelly.jr@leg.state.fl.us](mailto:kelly.jr@leg.state.fl.us)  
[rehwinkel.charles@leg.state.fl.us](mailto:rehwinkel.charles@leg.state.fl.us)  
[david.tad@leg.state.fl.us](mailto:david.tad@leg.state.fl.us)  
[fall-fry.mireille@leg.state.fl.us](mailto:fall-fry.mireille@leg.state.fl.us)  
[morse.stephanie@leg.state.fl.us](mailto:morse.stephanie@leg.state.fl.us)

Mr. Jon C. Moyle, Jr.  
Moyle Law Firm  
118 N. Gadsden Street  
Tallahassee, FL 32301  
[jmoyle@moylelaw.com](mailto:jmoyle@moylelaw.com)  
[mqualls@moyle.law.com](mailto:mqualls@moyle.law.com)

Mr. James W. Brew  
Ms. Laura W. Baker  
Stone Mattheis Xenopoulos & Brew, PC  
1025 Thomas Jefferson Street, NW  
Eighth Floor, West Tower  
Washington, D.C. 20007-5201  
[jbrew@smxblaw.com](mailto:jbrew@smxblaw.com)  
[lwb@smxblaw.com](mailto:lwb@smxblaw.com)

Francesca DiJulio  
50 F Street NW, Eighth Floor  
Washington, DC 20001  
[Francesca.dijulio@sierraclub.org](mailto:Francesca.dijulio@sierraclub.org)



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ATTORNEY

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental Cost )  
Recovery Clause. )  
\_\_\_\_\_ )

DOCKET NO. 20200007-EI

FILED: August 28, 2020

**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 factors proposed for use during the period January 2021 through December 2021, and in support thereof, says:

**Environmental Cost Recovery**

1. Tampa Electric's final true-up amount for the period January 2019 through December 2019 is an over-recovery of \$3,987,915. [See Exhibit No. MAS-1, Document No. 1 (Form 42-1A).]

2. Tampa Electric projects an actual/estimated true-up amount for the January 2020 through December 2020 period, which is based on actual data for the period January 1, 2020 through June 30, 2020 and revised estimates for the period July 1, 2020 through December 31, 2020, to be an under-recovery of \$7,841,176. [See Exhibit No. MAS-2, Document No. 1 (Form 42-1E).]

3. The company's projected environmental cost recovery amount for the period January 1, 2021 through December 31, 2021, including true-up amounts and adjusted for taxes, is \$52,083,641. When spread over projected kilowatt hour sales for the period January 1, 2021 through December 31, 2021, the average environmental cost recovery factor for the new period is 0.267 cents per kWh after application of factors which adjust for variations in line losses. [See Exhibit No. MAS-3, Document No. 7 (Form 42-7P).]

4. The accompanying Prepared Direct Testimony and Exhibits of Byron T. Burrows and M. Ashley Sizemore 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 M. Ashley Sizemore, 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 2021 through December 2021.

DATED this 28<sup>th</sup> day of August 2020.

Respectfully submitted,



---

JAMES D. BEASLEY  
J. JEFFRY WAHLEN  
MALCOLM N. MEANS  
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 28<sup>th</sup> day of August 2020 to the following:

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Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850  
[cmurphy@psc.state.fl.us](mailto:cmurphy@psc.state.fl.us)

Mr. Russell A. Badders  
Vice President & Associate General Counsel  
Gulf Power Company  
One Energy Place  
Pensacola, FL 32520-0100  
[Russell.Badders@nexteraenergy.com](mailto:Russell.Badders@nexteraenergy.com)

Mr. Matthew R. Bernier  
Duke Energy Florida, Inc.  
106 East College Avenue, Suite 800  
Tallahassee, FL 32301-7740  
[matthew.bernier@duke-energy.com](mailto:matthew.bernier@duke-energy.com)

Mr. Steven R. Griffin  
Beggs & Lane  
Post Office Box 12950  
Pensacola, FL 32591  
[srg@beggslane.com](mailto:srg@beggslane.com)

Ms. Dianne M. Triplett  
Duke Energy Florida, Inc.  
299 First Avenue North  
St. Petersburg, FL 33701  
[dianne.triplett@duke-energy.com](mailto:dianne.triplett@duke-energy.com)  
[FLRegulatoryLegal@duke-energy.com](mailto:FLRegulatoryLegal@duke-energy.com)

Ms. Patricia Christensen  
J.R. Kelly  
Charles J. Rehwinkel  
Thomas A. (Tad) David  
Mireille Fall-Fry  
Stephanie Morse  
Office of Public Counsel  
111 West Madison Street – Room 812  
Tallahassee, FL 32399-1400  
[christensen.patty@leg.state.fl.us](mailto:christensen.patty@leg.state.fl.us)  
[kelly.jr@leg.state.fl.us](mailto:kelly.jr@leg.state.fl.us)  
[rehwinkel.charles@leg.state.fl.us](mailto:rehwinkel.charles@leg.state.fl.us)  
[david.tad@leg.state.fl.us](mailto:david.tad@leg.state.fl.us)  
[fall-fry.mireille@leg.state.fl.us](mailto:fall-fry.mireille@leg.state.fl.us)  
[morse.stephanie@leg.state.fl.us](mailto:morse.stephanie@leg.state.fl.us)

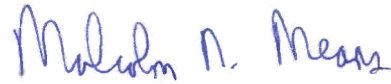
Ms. Maria Moncada, Senior Attorney  
David Lee, Senior Attorney  
Florida Power & Light Company  
700 Universe Boulevard  
Juno Beach, FL 33408-0420  
[maria.moncada@fpl.com](mailto:maria.moncada@fpl.com)  
[David.lee@fpl.com](mailto:David.lee@fpl.com)

Mr. Kenneth Hoffman  
Vice President, Regulatory Relations  
Florida Power & Light Company  
215 South Monroe Street, Suite 810  
Tallahassee, FL 32301-1858  
[ken.hoffman@fpl.com](mailto:ken.hoffman@fpl.com)

Mr. Jon C. Moyle, Jr.  
Moyle Law Firm  
118 N. Gadsden Street  
Tallahassee, FL 32301  
[jmoyle@moylelaw.com](mailto:jmoyle@moylelaw.com)  
[mqualls@moyle.law.com](mailto:mqualls@moyle.law.com)

Mr. James W. Brew  
Ms. Laura W. Baker  
Stone Mattheis Xenopoulos & Brew, PC  
1025 Thomas Jefferson Street, NW  
Eighth Floor, West Tower  
Washington, D.C. 20007-5201  
[jbrew@smxblaw.com](mailto:jbrew@smxblaw.com)  
[lwb@smxblaw.com](mailto:lwb@smxblaw.com)

Francesca DiJulio  
50 F Street NW, Eighth Floor  
Washington, DC 20001  
[Francesca.dijulio@sierraclub.org](mailto:Francesca.dijulio@sierraclub.org)



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ATTORNEY



**BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION**

**DOCKET NO. 20200007-EI  
IN RE: TAMPA ELECTRIC'S ENVIRONMENTAL  
COST RECOVERY**

**PROJECTION  
JANUARY 2021 THROUGH DECEMBER 2021**

**TESTIMONY AND EXHIBIT**

**OF**

**M. ASHLEY SIZEMORE**

**FILED: AUGUST 28, 2020**



1                   **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

2                                   **PREPARED DIRECT TESTIMONY**

3   **OF**

4   **M. ASHLEY SIZEMORE**

5  
6   **Q.**   Please state your name, address, occupation, and  
7           employer.

8  
9   **A.**   My name is M. Ashley Sizemore. My business address is 702  
10           North Franklin Street, Tampa, Florida 33602. I am employed  
11           by Tampa Electric Company ("Tampa Electric" or "company")  
12           in the position of Manager, Rates in the Regulatory  
13           Affairs Department.

14  
15   **Q.**   Have you previously filed testimony in Docket No.  
16           20200007-EI?

17  
18   **A.**   Yes, I submitted direct testimony on June 3, 2020 and  
19           July 31, 2020.

20  
21   **Q.**   Has your job description, education, or professional  
22           experience changed since you last filed testimony?

23  
24   **A.**   No, it has not.  
25

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

2

3 A. The purpose of my testimony is to present, for Commission  
4 review and approval, the calculation of the revenue  
5 requirements and the projected Environmental Cost  
6 Recovery Clause ("ECRC") factors for the period of January  
7 2021 through December 2021. The projected ECRC factors  
8 have been calculated based on the current allocation  
9 methodology. In support of the projected ECRC factors, my  
10 testimony identifies the capital and operating &  
11 maintenance ("O&M") costs associated with environmental  
12 compliance activities for the year 2021.

13

14 Q. Have you prepared an exhibit that shows the determination  
15 of recoverable environmental costs for the period of  
16 January 2021 through December 2021?

17

18 A. Yes. Exhibit No. MAS-3, containing eight documents, was  
19 prepared under my direction and supervision. Document  
20 Nos. 1 through 8 contain Forms 42-1P through 42-8P, which  
21 show the calculation and summary of the O&M and capital  
22 expenditures that support the development of the  
23 environmental cost recovery factors for 2021.

24

25 Q. Are you requesting Commission approval of the projected

1 environmental cost recovery factors for the company's  
2 various rate schedules?

3

4 **A.** Yes. The company requests approval of the ECRC factors  
5 provided in Exhibit No. MAS-3, Document No. 7, on Form  
6 42-7P. The factors were prepared under my direction and  
7 supervision. These annualized factors will apply for the  
8 period January 2021 through December 2021.

9

10 **Q.** What has Tampa Electric calculated as the net true-up to  
11 be applied in the period January 2021 to December 2021?

12

13 **A.** The net true-up applicable for this period is an under-  
14 recovery of \$3,853,261. This consists of a final true-up  
15 over-recovery of \$3,987,915 for the period of January 2019  
16 through December 2019 and an estimated true-up under-  
17 recovery of \$7,841,176 for the current period of January  
18 2020 through December 2020. The detailed calculation  
19 supporting the estimated net true-up was provided on Forms  
20 42-1E through 42-9E of Exhibit No. MAS-2 filed with the  
21 Commission on July 31, 2020.

22

23 **Q.** Did Tampa Electric include any new environmental  
24 compliance projects for ECRC cost recovery for the period  
25 from January 2021 through December 2021?

1     **A.**    No, Tampa Electric is not including costs for any new  
2            environmental projects.

3

4     **Q.**    What are the capital projects included in the calculation  
5            of the ECRC factors for 2021?

6

7     **A.**    Tampa Electric proposes to include for ECRC recovery costs  
8            for the 29 approved capital projects in the calculation  
9            of the 2021 ECRC factors. These projects are listed below.

10

- 11           1)    Big Bend Unit 3 Flue Gas Desulfurization ("FGD")
- 12                Integration
- 13           2)    Big Bend Units 1 and 2 Flue Gas Conditioning
- 14           3)    Big Bend Unit 4 Continuous Emissions Monitors
- 15           4)    Big Bend Fuel Oil Tank No. 1 Upgrade
- 16           5)    Big Bend Fuel Oil Tank No. 2 Upgrade
- 17           6)    Big Bend Unit 1 Classifier Replacement
- 18           7)    Big Bend Unit 2 Classifier Replacement
- 19           8)    Big Bend Section 114 Mercury Testing Platform
- 20           9)    Big Bend Units 1 and 2 FGD
- 21           10)   Big Bend FGD Optimization and Utilization
- 22           11)   Big Bend NO<sub>x</sub> Emissions Reduction
- 23           12)   Big Bend Particulate Matter ("PM") Minimization and
- 24                Monitoring
- 25           13)   Polk NO<sub>x</sub> Emissions Reduction

- 1 14) Big Bend Unit 4 SOFA
- 2 15) Big Bend Unit 1 Pre-SCR
- 3 16) Big Bend Unit 2 Pre-SCR
- 4 17) Big Bend Unit 3 Pre-SCR
- 5 18) Big Bend Unit 1 SCR
- 6 19) Big Bend Unit 2 SCR
- 7 20) Big Bend Unit 3 SCR
- 8 21) Big Bend Unit 4 SCR
- 9 22) Big Bend FGD System Reliability
- 10 23) Mercury Air Toxics Standards ("MATS")
- 11 24) SO<sub>2</sub> Emission Allowances
- 12 25) Big Bend Gypsum Storage Facility
- 13 26) Big Bend Coal Combustion Residuals ("CCR") Rule -
- 14 Phase I
- 15 27) Big Bend CCR Rule - Phase II
- 16 28) Big Bend Unit 1 Section 316(b) Impingement Mortality
- 17 29) Big Bend Effluent Limitations Guidelines ("ELG")
- 18 Rule Compliance

19

20 **Q.** Have you prepared schedules showing the calculation of

21 the recoverable capital project costs for 2021?

22

23 **A.** Yes. Form 42-3P contained in Exhibit No. MAS-3 summarizes

24 the cost estimates for these projects. Form 42-4P, pages

25 1 through 29, provides the calculations resulting in

1 recoverable jurisdictional capital costs of \$44,712,788.

2  
3 **Q.** What O&M projects are included in the calculation of the  
4 ECRC factors for 2021?

5  
6 **A.** Tampa Electric proposes to include for ECRC recovery O&M  
7 costs for 27 approved O&M projects in the calculation of  
8 the ECRC factors for 2021. These projects are listed  
9 below.

- 10 1) Big Bend Unit 3 FGD Integration
- 11 2) Big Bend Units 1 and 2 Flue Gas Conditioning
- 12 3) SO<sub>2</sub> Emission Allowances
- 13 4) Big Bend Units 1 and 2 FGD
- 14 5) Big Bend PM Minimization and Monitoring
- 15 6) Big Bend NO<sub>x</sub> Emissions Reduction
- 16 7) National Pollutant Discharge Elimination System  
17 ("NPDES") Annual Surveillance Fees
- 18 8) Gannon Thermal Discharge Study
- 19 9) Polk NO<sub>x</sub> Emissions Reduction
- 20 10) Bayside SCR Consumables
- 21 11) Big Bend Unit 4 Separated Overfired Air ("SOFA")
- 22 12) Big Bend Unit 1 Pre-SCR
- 23 13) Big Bend Unit 2 Pre-SCR
- 24 14) Big Bend Unit 3 Pre-SCR
- 25 15) Clean Water Act Section 316(b) Phase II Study

- 1           16) Arsenic Groundwater Standard Program
- 2           17) Big Bend Unit 1 SCR
- 3           18) Big Bend Unit 2 SCR
- 4           19) Big Bend Unit 3 SCR
- 5           20) Big Bend Unit 4 SCR
- 6           21) Mercury Air Toxics Standards
- 7           22) Greenhouse Gas Reduction Program
- 8           23) Big Bend Gypsum Storage Facility
- 9           24) Big Bend CCR Rule - Phase I
- 10          25) Big Bend CCR Rule - Phase II
- 11          26) Big Bend Unit 1 Section 316(b) Impingement Mortality
- 12          27) Big Bend ELG Rule Compliance

13

14   **Q.**    Have you prepared a schedule showing the calculation of  
15           the recoverable O&M project costs for 2021?

16

17   **A.**    Yes. Form 42-2P contained in Exhibit No. MAS-3 presents  
18           the recoverable jurisdictional O&M costs for these  
19           projects, which total \$3,480,118 for 2021.

20

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

24

25   **A.**    Yes. Project descriptions and progress reports are

1 provided in Form 42-5P, pages 1 through 34.

2

3 **Q.** What are the total projected jurisdictional costs for  
4 environmental compliance in the year 2021?

5

6 **A.** The total jurisdictional O&M and capital expenditures to  
7 be recovered through the ECRC are calculated on Form 42-  
8 1P of Exhibit No. MAS-3. These expenditures total  
9 \$52,046,167.

10

11 **Q.** How were environmental cost recovery factors calculated?

12

13 **A.** The environmental cost recovery factors were calculated  
14 as shown on Schedules 42-6P and 42-7P. The demand and  
15 energy allocation factors were determined by calculating  
16 the percentage that each rate class contributes to the  
17 total demand or energy and then adjusted for line losses  
18 for each rate class. This information was calculated by  
19 applying historical rate class load research to 2021  
20 projected system demand and energy. Form 42-7P presents  
21 the calculation of the proposed ECRC factors by rate  
22 class.

23

24 **Q.** What are the ECRC billing factors for the period January  
25 2021 through December 2021, for which Tampa Electric is



1 seeking approval?

2

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

6

<u>Rate Class</u>	<u>Factors by Voltage Level</u>
	<u>(¢/kWh)</u>
RS Secondary	0.269
GS, CS Secondary	0.269
GSD, SBF	
Secondary	0.265
Primary	0.262
Transmission	0.260
IS	
Secondary	0.257
Primary	0.254
Transmission	0.252
LS1	0.258
Average Factor	0.267

21

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

24

25 **A.** The environmental cost recovery factors will be effective

1 concurrent with the first billing cycle for January 2021.

2  
3 **Q.** What capital structure components and cost rates did Tampa  
4 Electric rely on to calculate the revenue requirement rate  
5 of return for January 2021 through December 2021?  
6

7 **A.** To calculate the revenue requirement rate of return found  
8 on Form 42-8P, Tampa Electric used the weighted average  
9 cost of capital ("WACC") methodology approved by the  
10 Commission in Order Nos. PSC-2012-0425-PAA-EU, PSC-2017-  
11 0456-S-EI, and recently issued PSC-2020-0165-PAA-EU,  
12 approving Amended Joint Motion Modifying Weighted Average  
13 Costs of Capital Methodology, issued on May 20, 2020. The  
14 recent order amends the 2012 Order as it authorized the  
15 application of a historical WACC to calculate the rate of  
16 return in a projected future clause recovery period and  
17 this no longer comports with the IRS Normalization Rules  
18 regarding the calculation of the depreciation-related  
19 Accumulated Deferred Income Tax ("ADIT") balance in the  
20 capital structure. As a result, a new methodology was  
21 approved by the Commission whereby a formula more  
22 reflective of the projected period is applied to derive  
23 the WACC for projected period depreciation related ADIT.  
24 Per the recent order, the change is effective with the  
25 2021 projection filing.

1     **Q.**    Are the costs Tampa Electric is requesting for recovery  
2            through the ECRC for the period January 2021 through  
3            December 2021 consistent with the criteria established for  
4            ECRC recovery in Order No. PSC-1994-0044-FOF-EI?

5  
6     **A.**    Yes. The costs for which ECRC recovery is requested meet  
7            the following criteria:

- 8            1)    Such costs were prudently incurred after April 13,  
9                    1993;
- 10           2)    The activities are legally required to comply with  
11                   a governmentally imposed environmental regulation  
12                   enacted, became effective or whose effect was  
13                   triggered after the company's last test year upon  
14                   which rates were based; and,
- 15           3)    Such costs are not recovered through some other cost  
16                   recovery mechanism or through base rates.

17  
18     **Q.**    Please summarize your direct testimony.

19  
20     **A.**    My testimony supports the approval of a final average  
21            ECRC billing factor of 0.267 cents per kWh. This includes  
22            the projected capital and O&M revenue requirements of  
23            \$48,192,906 associated with the company's 35 ECRC  
24            projects and a net true-up under-recovery provision of  
25            \$3,853,261. My testimony also explains that the projected

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25

environmental expenditures for 2021 are appropriate for recovery through the ECRC.

**Q.** Does this conclude your direct testimony?

**A.** Yes, it does.

EXHIBIT TO THE TESTIMONY OF  
M. ASHLEY SIZEMORE

TAMPA ELECTRIC'S ENVIRONMENTAL  
COST RECOVERY

PROJECTION

JANUARY 2021 THROUGH DECEMBER 2021

INDEX  
ENVIRONMENTAL COST RECOVERY  
COMMISSION FORMS

JANUARY 2021 THROUGH DECEMBER 2021

<u>DOCUMENT NO.</u>	<u>TITLE</u>	<u>PAGE</u>
1	Form 42-1P	15
2	Form 42-2P	16
3	Form 42-3P	17
4	Form 42-4P	18
5	Form 42-5P	47
6	Form 42-6P	81
7	Form 42-7P	82
8	Form 42-8P	83

Form 42 - 1P

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

For the Projected Period  
**January 2021 to December 2021**

	Energy (\$)	Demand (\$)	Total (\$)
1. Total Jurisdictional Revenue Requirements for the projected period			
a. Projected O&M Activities (Form 42-2P, Lines 7, 8 & 9)	\$3,375,618	\$104,500	\$3,480,118
b. Projected Capital Projects (Form 42-3P, Lines 7, 8 & 9)	42,617,540	2,095,248	44,712,788
c. Total Jurisdictional Revenue Requirements for the projected period (Lines 1a + 1b)	45,993,158	2,199,748	48,192,906
2. True-up for Estimated Over/(Under) Recovery for the current period January 2020 to December 2020 (Form 42-2E, Line 5 + 6 + 10)	(7,759,917)	(81,259)	(7,841,176)
3. Final True-up for the period January 2019 to December 2019 (Form 42-1A, Line 3)	3,955,082	32,833	3,987,915
4. Total Jurisdictional Amount to Be Recovered/(Refunded) in the projection period January 2021 to December 2021 (Line 1 - Line 2- Line 3)	49,797,993	2,248,174	52,046,167
5. Total Projected Jurisdictional Amount Adjusted for Taxes (Line 4 x Revenue Tax Multiplier)	\$49,833,848	\$2,249,793	\$52,083,641

- Line
1. Total Jurisdictional Revenue Requirements for the projected period
    - a. Projected O&M Activities (Form 42-2P, Lines 7, 8 & 9)
    - b. Projected Capital Projects (Form 42-3P, Lines 7, 8 & 9)
    - c. Total Jurisdictional Revenue Requirements for the projected period (Lines 1a + 1b)
  2. True-up for Estimated Over/(Under) Recovery for the current period January 2020 to December 2020 (Form 42-2E, Line 5 + 6 + 10)
  3. Final True-up for the period January 2019 to December 2019 (Form 42-1A, Line 3)
  4. Total Jurisdictional Amount to Be Recovered/(Refunded) in the projection period January 2021 to December 2021 (Line 1 - Line 2- Line 3)
  5. Total Projected Jurisdictional Amount Adjusted for Taxes (Line 4 x Revenue Tax Multiplier)

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

**O&M Activities**  
 (in Dollars)

Line	Description of O&M Activities	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	Projected Total	Method of Classification
1.	Description of O&M Activities														Energy
a.	Big Bend Unit 3 FGD Integration	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
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 <sub>2</sub> Emissions Allowances	(4)	4	4	(4)	4	4	(4)	4	4	(4)	4	4	15	15
d.	Big Bend Units 1 & 2 FGD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
e.	Big Bend PM Minimization and Monitoring	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	252,000	252,000
f.	Big Bend NO <sub>x</sub> Emissions Reduction	169	169	169	169	169	169	169	169	169	169	169	169	2,028	2,028
g.	NPDES Annual Surveillance Fees	23,500	0	0	0	0	0	0	0	0	0	0	0	23,500	\$23,500
h.	Gannon Thermal Discharge Study	0	0	0	0	0	0	0	0	0	0	0	0	0	0
i.	Polk NO <sub>x</sub> Emissions Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0
j.	Bayside SCR and Ammonia	8,000	8,000	9,000	10,000	11,000	12,000	12,000	12,000	11,000	10,000	8,000	8,000	119,000	119,000
k.	Big Bend Unit 4 SOFA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
l.	Big Bend Unit 1 Pre-SCR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
m.	Big Bend Unit 2 Pre-SCR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
n.	Big Bend Unit 3 Pre-SCR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
o.	Clean Water Act Section 316(b) Phase II Study	5,000	15,000	0	20,000	2,500	2,500	0	0	0	0	0	0	45,000	45,000
p.	Arsenic Groundwater Standard Program	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	36,000	36,000
q.	Big Bend Unit 1 SCR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
r.	Big Bend Unit 2 SCR	8,069	3,999	13,404	11,861	14,428	8,846	11,380	11,029	12,342	26,662	0	0	122,020	122,020
s.	Big Bend Unit 3 SCR	26,583	20,671	51,107	43,282	32,923	39,624	36,347	33,343	33,017	36,233	95,432	75,535	524,097	524,097
t.	Big Bend Unit 4 SCR	109,044	119,025	79,185	88,553	96,344	95,226	99,324	98,337	98,337	80,801	47,763	67,661	1,077,230	1,077,230
u.	Mercury Air Toxics Standards	0	0	3,000	0	0	0	0	0	0	0	0	0	3,000	3,000
v.	Greenhouse Gas Reduction Program	0	0	53,528	0	40,000	0	0	0	0	0	0	0	93,528	93,528
w.	Big Bend Gypsum Storage Facility (East 40)	98,158	98,158	98,158	98,158	98,158	98,158	98,158	98,158	98,158	98,158	98,158	98,158	1,177,899	1,177,899
x.	Big Bend CCR Rule - Phase I	0	0	0	0	0	0	0	0	0	0	0	0	0	0
y.	Big Bend ELG Compliance	400	400	400	400	400	400	400	400	400	400	400	400	4,800	4,800
z.	Big Bend CCR Rule - Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0	0
aa.	Big Bend Unit 1 Sec. 316(b) Impingement Mortality	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.	Total of O&M Activities	302,918	289,427	331,955	296,418	319,927	280,927	278,418	278,427	277,427	276,418	273,927	273,927	3,480,118	\$104,500
3.	Recoverable Costs Allocated to Energy	271,418	271,427	328,955	273,418	314,427	275,427	275,418	275,427	274,427	273,418	270,927	270,927	3,375,618	
4.	Recoverable Costs Allocated to Demand	31,500	18,000	3,000	23,000	5,500	5,500	3,000	3,000	3,000	3,000	3,000	3,000	104,500	
5.	Retail Energy Jurisdictional Factor	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	10,000,000	
6.	Retail Demand Jurisdictional Factor	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	10,000,000	
7.	Jurisdictional Energy Recoverable Costs (A)	271,418	271,427	328,955	273,418	314,427	275,428	275,418	275,427	274,427	273,418	270,927	270,928	3,375,618	
8.	Jurisdictional Demand Recoverable Costs (B)	31,500	18,000	3,000	23,000	5,500	5,500	3,000	3,000	3,000	3,000	3,000	3,000	104,500	
9.	Total Jurisdictional Recoverable Costs for O&M Activities (Lines 7 + 8)	\$302,918	\$289,427	\$331,955	\$296,418	\$319,927	\$280,928	\$278,418	\$278,427	\$277,427	\$276,418	\$273,927	\$273,928	\$3,480,118	\$3,375,618

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



**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

**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	Projected Total	End of Period Total	Method of Classification
1.	a. Big Bend Unit 3 FGD Integration	\$76,549	\$76,359	\$76,171	\$75,981	\$75,791	\$75,603	\$75,413	\$75,224	\$75,035	\$74,845	\$74,657	\$74,467	\$74,277	\$906,095	Energy
	b. Big Bend Units 1 and 2 Flue Gas Conditioning	17,777	17,671	17,565	17,459	17,354	17,247	17,142	17,036	16,929	16,824	12,289	7,749	7,749	193,042	Energy
	c. Big Bend Unit 4 Continuous Emissions Monitors	3,883	3,868	3,853	3,838	3,823	3,807	3,792	3,777	3,762	3,747	3,732	3,716	3,701	45,598	Demand
	d. Big Bend Fuel Oil Tank # 1 Upgrade	5,510	5,476	5,442	5,409	5,375	5,341	5,308	5,274	5,241	5,207	5,173	5,140	5,107	\$63,896	Demand
	e. Big Bend Fuel Oil Tank # 2 Upgrade	9,062	9,007	8,952	8,896	8,841	8,785	8,730	8,675	8,620	8,564	8,509	8,454	8,399	105,098	Demand
	f. Big Bend Unit 1 Classifier Replacement	4,317	4,296	4,275	4,254	4,233	4,212	4,191	4,170	4,149	4,128	4,107	4,086	4,065	69,201	Demand
	g. Big Bend Unit 2 Classifier Replacement	674	672	670	668	666	664	662	660	659	656	655	652	652	50,482	Demand
	h. Big Bend Section 114 Mercury Testing Platform	462,864	461,146	459,427	457,708	455,989	454,270	452,552	450,833	449,114	447,395	445,676	443,957	442,238	5,440,931	Energy
	i. Big Bend Units 1 & 2 FGD	127,323	127,010	126,697	126,385	126,072	125,759	125,446	125,134	124,821	124,508	124,195	123,883	123,570	1,507,233	Energy
	j. Big Bend FGD Optimization and Utilization	40,969	40,902	40,835	40,769	40,701	40,634	40,567	40,501	40,434	40,367	40,301	40,234	40,167	487,214	Energy
	k. Big Bend NO <sub>x</sub> Emissions Reduction	142,586	142,188	141,788	141,388	140,989	140,589	140,190	139,790	139,391	138,992	138,592	138,192	137,793	1,684,675	Energy
	l. Big Bend PM Minimization and Monitoring	8,779	8,749	8,721	8,691	8,662	8,634	8,604	8,576	8,547	8,517	8,489	8,459	8,429	103,428	Energy
	m. Polk NO <sub>x</sub> Emissions Reduction	15,688	15,646	15,604	15,562	15,520	15,478	15,436	15,395	15,352	15,310	15,268	15,227	15,185	185,486	Energy
	n. Big Bend Unit 4 SOFA	10,635	10,598	10,562	10,526	10,490	10,454	10,418	10,382	10,345	10,309	10,273	10,237	10,201	125,229	Energy
	o. Big Bend Unit 1 Pre-SCR	10,189	10,157	10,125	10,093	10,061	10,029	9,998	9,966	9,934	9,902	9,870	9,838	9,806	120,162	Energy
	p. Big Bend Unit 2 Pre-SCR	18,348	18,295	18,243	18,191	18,139	18,086	18,035	17,983	17,930	17,879	17,826	17,774	17,722	216,730	Energy
	q. Big Bend Unit 3 Pre-SCR	608,310	606,281	604,252	602,222	600,194	598,165	596,136	594,108	592,079	590,049	588,021	585,992	583,964	7,165,809	Energy
	r. Big Bend Unit 1 SCR	669,093	667,044	664,994	662,944	660,894	658,843	656,794	654,744	652,694	650,644	648,595	646,545	644,495	7,893,828	Energy
	s. Big Bend Unit 2 SCR	544,920	543,265	541,611	539,957	538,303	536,648	534,994	533,341	531,686	530,032	528,377	526,723	525,069	6,429,857	Energy
	t. Big Bend Unit 3 SCR	437,462	436,198	434,934	433,670	432,406	431,142	429,878	428,614	427,350	426,086	424,822	423,558	422,294	5,199,976	Energy
	u. Big Bend Unit 4 SCR	169,626	169,288	168,950	168,611	168,273	167,934	167,595	167,256	166,918	166,579	166,241	165,903	165,564	2,013,174	Energy
	v. Big Bend FGD System Reliability	66,057	65,911	65,765	65,619	65,473	65,327	65,181	65,035	64,889	64,743	64,597	64,451	64,305	783,036	Energy
	w. Mercury Air Toxics Standards	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(2,688)	Energy
	x. SO <sub>x</sub> Emissions Allowances (B)	167,796	167,456	167,115	166,775	166,434	166,094	165,753	165,413	165,073	164,732	164,392	164,051	163,711	1,991,084	Energy
	y. Big Bend Gypsum Storage Facility	22,963	22,903	22,843	22,783	22,723	22,663	22,603	22,543	22,483	22,423	22,363	22,303	22,243	362,933	Energy
	z. Big Bend CCR Rule - Phase I	23,582	24,287	24,992	25,697	26,402	27,107	27,812	28,517	29,222	29,927	30,632	31,337	32,042	328,169	Energy
	aa. Big Bend CCR Rule - Phase II	30,885	35,485	40,085	44,685	49,285	53,885	58,485	63,085	67,685	72,285	76,885	81,485	86,085	782,650	Energy
	ab. Big Bend ELG Compliance	8,442	11,468	15,484	20,153	24,648	29,845	35,834	42,592	49,140	56,488	64,446	72,904	81,862	6,429,857	Energy
	ac. Big Bend Unit 1 Sec. 316(b) Impingement Mortality	3,709,990	3,710,001	3,711,949	3,713,296	3,713,714	3,715,136	3,718,241	3,723,502	3,735,597	3,745,099	3,759,796	3,756,467	3,756,467	\$42,617,540	Energy
2.	Total Investment Projects - Recoverable Costs	3,609,546	3,598,673	3,587,805	3,577,095	3,566,798	3,556,580	3,546,120	3,536,238	3,526,210	3,516,631	3,503,584	3,488,260	3,471,540	42,617,540	Energy
3.	Recoverable Costs Allocated to Energy	100,444	111,328	124,144	136,201	146,916	158,556	172,121	187,264	207,387	226,468	256,212	268,207	268,207	2,095,248	Demand
4.	Recoverable Costs Allocated to Demand	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	10,000,000	Demand
5.	Retail Energy Jurisdictional Factor	3,609,546	3,598,673	3,587,805	3,577,095	3,566,798	3,556,580	3,546,120	3,536,238	3,526,210	3,516,631	3,503,584	3,488,260	3,471,540	42,617,540	Energy
6.	Retail Demand Jurisdictional Factor	100,444	111,328	124,144	136,201	146,916	158,556	172,121	187,264	207,387	226,468	256,212	268,207	268,207	2,095,248	Demand
7.	Jurisdictional Demand Recoverable Costs (C)	3,609,546	3,598,673	3,587,805	3,577,095	3,566,798	3,556,580	3,546,120	3,536,238	3,526,210	3,516,631	3,503,584	3,488,260	3,471,540	42,617,540	Energy
8.	Jurisdictional Demand Recoverable Costs (D)	100,444	111,328	124,144	136,201	146,916	158,556	172,121	187,264	207,387	226,468	256,212	268,207	268,207	2,095,248	Demand
9.	Total Jurisdictional Recoverable Costs for Investment Projects (Lines 7 + 8)	\$3,709,990	\$3,710,001	\$3,711,949	\$3,713,296	\$3,713,714	\$3,715,136	\$3,718,241	\$3,723,502	\$3,735,597	\$3,745,099	\$3,759,796	\$3,756,467	\$3,756,467	\$44,712,788	Energy

**Notes:**  
 (A) Each project's Total System Recoverable Expenses on Form 42-4P, Line 9  
 (B) Project's Total Return Component on Form 42-4P, 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 2021 to December 2021

Return on Capital Investments, Depreciation and Taxes  
 For Project: Big Bend Unit 3 FGD 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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other - AFUDC (excl from CWIP)		0	0	0	0	0	0	0	0	0	0	0	0	0
2.	Plant-in-Service/Depreciation Base (A)	\$13,763,263	\$13,763,263	\$13,763,263	\$13,763,263	\$13,763,263	\$13,763,263	\$13,763,263	\$13,763,263	\$13,763,263	\$13,763,263	\$13,763,263	\$13,763,263	\$13,763,263	\$13,763,263
3.	Less: Accumulated Depreciation	(6,478,449)	(6,507,287)	(6,536,125)	(6,564,963)	(6,593,801)	(6,622,639)	(6,651,477)	(6,680,315)	(6,709,153)	(6,737,991)	(6,766,829)	(6,795,667)	(6,824,505)	(6,824,505)
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$7,284,814	7,255,976	7,227,138	7,198,300	7,169,462	7,140,624	7,111,786	7,082,948	7,054,110	7,025,272	6,996,434	6,967,596	6,938,758	6,938,758
6.	Average Net Investment		7,270,395	7,241,557	7,212,719	7,183,881	7,155,043	7,126,205	7,097,367	7,068,529	7,039,691	7,010,853	6,982,015	6,953,177	6,953,177
7.	Return on Average Net Investment		\$37,219	\$37,071	\$36,924	\$36,776	\$36,628	\$36,481	\$36,333	\$36,186	\$36,038	\$35,890	\$35,743	\$35,595	\$436,884
	a. Equity Component Grossed Up For Taxes (B)		10,492	10,450	10,409	10,367	10,325	10,284	10,242	10,200	10,159	10,117	10,076	10,034	123,155
	b. Debt Component Grossed Up For Taxes (C)		28,838	28,838	28,838	28,838	28,838	28,838	28,838	28,838	28,838	28,838	28,838	28,838	346,056
8.	Investment Expenses		0	0	0	0	0	0	0	0	0	0	0	0	0
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)		76,549	76,359	76,171	75,981	75,791	75,603	75,413	75,224	75,035	74,845	74,657	74,467	906,095
	a. Recoverable Costs Allocated to Energy		76,549	76,359	76,171	75,981	75,791	75,603	75,413	75,224	75,035	74,845	74,657	74,467	906,095
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		76,549	76,359	76,171	75,981	75,791	75,603	75,413	75,224	75,035	74,845	74,657	74,467	906,095
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)		\$76,549	\$76,359	\$76,171	\$75,981	\$75,791	\$75,603	\$75,413	\$75,224	\$75,035	\$74,845	\$74,657	\$74,467	\$906,095

**Notes:**  
 (A) Applicable depreciable base for Big Bend: accounts 312.45 (\$13,435,775), 315.45 (\$327,307), and 312.40 (\$182).  
 (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830).  
 (C) Line 6 x 1.7317% x 1/12.  
 (D) Applicable depreciation rates are 2.5%, 3.1%, and 3.4%.  
 (E) Line 9a x Line 10  
 (F) Line 9b x Line 11

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
2.	Plant-in-Service/Depreciation Base (A)	\$5,017,734	\$5,017,734	\$5,017,734	\$5,017,734	\$5,017,734	\$5,017,734	\$5,017,734	\$5,017,734	\$5,017,734	\$5,017,734	\$5,017,734	\$5,017,734	\$5,017,734	\$5,017,734
3.	Less: Accumulated Depreciation	(4,760,354)	(4,776,495)	(4,792,636)	(4,808,777)	(4,824,918)	(4,841,059)	(4,857,200)	(4,873,341)	(4,889,482)	(4,905,623)	(4,921,764)	(4,937,905)	(4,954,046)	(4,970,187)
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$257,380	241,239	225,098	208,957	192,816	176,675	160,534	144,393	128,252	112,111	95,970	84,272	77,052	70,000
6.	Average Net Investment		249,310	233,169	217,028	200,887	184,746	168,605	152,464	136,323	120,182	104,041	90,121	80,662	70,000
7.	Return on Average Net Investment		\$1,276	\$1,194	\$1,111	\$1,028	\$946	\$863	\$781	\$698	\$615	\$533	\$461	\$413	\$341
	a. Equity Component Grossed Up For Taxes (B)		360	336	313	290	267	243	220	197	173	150	130	116	100
	b. Debt Component Grossed Up For Taxes (C)		16,141	16,141	16,141	16,141	16,141	16,141	16,141	16,141	16,141	16,141	16,141	16,141	16,141
8.	Investment Expenses		16,141	16,141	16,141	16,141	16,141	16,141	16,141	16,141	16,141	16,141	16,141	16,141	16,141
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)		17,777	17,671	17,565	17,459	17,354	17,247	17,142	17,036	16,929	16,824	16,719	16,614	16,508
	a. Recoverable Costs Allocated to Energy		17,777	17,671	17,565	17,459	17,354	17,247	17,142	17,036	16,929	16,824	16,719	16,614	16,508
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		17,777	17,671	17,565	17,459	17,354	17,247	17,142	17,036	16,929	16,824	16,719	16,614	16,508
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)		\$17,777	\$17,671	\$17,565	\$17,459	\$17,354	\$17,247	\$17,142	\$17,036	\$16,929	\$16,824	\$16,719	\$16,614	\$16,508

**Notes:**

- (A) Applicable depreciable base for Big Bend; accounts 312.41 (\$2,676,217) and 312.42 (\$2,341,517)
- (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)
- (C) Line 6 x 1.7317% 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 2021 to December 2021

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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	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	\$866,211
3.	Less: Accumulated Depreciation	(625,325)	(629,945)	(632,255)	(634,565)	(636,875)	(639,185)	(641,495)	(643,805)	(646,115)	(648,425)	(650,735)	(653,045)	(655,355)	(657,665)
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$240,886	236,266	233,956	231,646	229,336	227,026	224,716	222,406	220,096	217,786	215,476	213,166	210,856	208,546
6.	Average Net Investment	239,731	237,421	235,111	232,801	230,491	228,181	225,871	223,561	221,251	218,941	216,631	214,321	212,011	209,701
7.	Return on Average Net Investment		\$1,227	\$1,215	\$1,204	\$1,192	\$1,180	\$1,168	\$1,156	\$1,144	\$1,133	\$1,121	\$1,109	\$1,097	\$1,085
	a. Equity Component Grossed Up For Taxes (B)		346	343	339	336	333	329	326	323	319	316	313	309	306
	b. Debt Component Grossed Up For Taxes (C)														
8.	Investment Expenses		2,310	2,310	2,310	2,310	2,310	2,310	2,310	2,310	2,310	2,310	2,310	2,310	2,310
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)	3,883	3,868	3,853	3,838	3,823	3,807	3,792	3,777	3,762	3,747	3,732	3,716	3,701	3,686
	a. Recoverable Costs Allocated to Energy	3,883	3,868	3,853	3,838	3,823	3,807	3,792	3,777	3,762	3,747	3,732	3,716	3,701	3,686
	b. Recoverable Costs Allocated to Demand	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)	3,883	3,868	3,853	3,838	3,823	3,807	3,792	3,777	3,762	3,747	3,732	3,716	3,701	3,686
13.	Retail Demand-Related Recoverable Costs (F)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)	\$3,883	\$3,868	\$3,853	\$3,838	\$3,823	\$3,807	\$3,792	\$3,777	\$3,762	\$3,747	\$3,732	\$3,716	\$3,701	\$3,686

**Notes:**

- (A) Applicable depreciable base for Big Bend; account 315.44
- (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)
- (C) Line 6 x 1.7317% 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 2021 to December 2021

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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	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	\$497,578
3.	Less: Accumulated Depreciation	(436,102)	(441,225)	(446,348)	(451,471)	(456,594)	(461,717)	(466,840)	(471,963)	(477,086)	(482,209)	(487,332)	(492,455)	(497,578)	(497,578)
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$61,476	\$6,353	\$5,230	\$4,107	\$4,984	\$3,861	\$3,738	\$2,615	\$2,492	\$1,369	\$10,246	\$5,123	0	0
6.	Average Net Investment	58,915	53,792	48,669	43,546	38,423	33,300	28,177	23,054	17,931	12,808	7,685	2,562		
7.	Return on Average Net Investment		\$302	\$275	\$249	\$223	\$197	\$170	\$144	\$118	\$92	\$66	\$39	\$13	\$1,888
	a. Equity Component Grossed Up For Taxes (B)		85	78	70	63	55	48	41	33	26	18	11	4	532
	b. Debt Component Grossed Up For Taxes (C)														
8.	Investment Expenses		5,123	5,123	5,123	5,123	5,123	5,123	5,123	5,123	5,123	5,123	5,123	5,123	61,476
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)		5,510	5,476	5,442	5,409	5,375	5,341	5,308	5,274	5,241	5,207	5,173	5,140	63,896
	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		5,510	5,476	5,442	5,409	5,375	5,341	5,308	5,274	5,241	5,207	5,173	5,140	63,896
10.	Energy Jurisdictional Factor	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
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)		5,510	5,476	5,442	5,409	5,375	5,341	5,308	5,274	5,241	5,207	5,173	5,140	63,896
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$5,510	\$5,476	\$5,442	\$5,409	\$5,375	\$5,341	\$5,308	\$5,274	\$5,241	\$5,207	\$5,173	\$5,140	\$63,896

**Notes:**

- (A) Applicable depreciable base for Big Bend; account 312.40
- (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)
- (C) Line 6 x 1.7317% x 1/12.
- (D) Applicable depreciation rate is 12.4%
- (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 2021 to December 2021

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	0
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	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	\$818,401
3.	Less: Accumulated Depreciation	(717,286)	(725,712)	(734,138)	(742,564)	(750,990)	(759,416)	(767,842)	(776,268)	(784,694)	(793,120)	(801,546)	(809,972)	(818,401)	(818,401)
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$101,115	\$92,689	\$84,263	\$75,837	\$67,411	\$58,985	\$50,559	\$42,133	\$33,707	\$25,281	\$16,855	\$8,429	\$0	\$0
6.	Average Net Investment		96,902	88,476	80,050	71,624	63,198	54,772	46,346	37,920	29,494	21,068	12,642	4,215	
7.	Return on Average Net Investment		\$496	\$453	\$410	\$367	\$324	\$280	\$237	\$194	\$151	\$108	\$65	\$22	\$3,107
	a. Equity Component Grossed Up For Taxes (B)		140	128	116	103	91	79	67	55	43	30	18	6	876
	b. Debt Component Grossed Up For Taxes (C)														
8.	Investment Expenses														
	a. Depreciation (D)		8,426	8,426	8,426	8,426	8,426	8,426	8,426	8,426	8,426	8,426	8,426	8,426	8,429
	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)		9,062	9,007	8,952	8,896	8,841	8,785	8,730	8,675	8,620	8,564	8,509	8,457	105,098
	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		9,062	9,007	8,952	8,896	8,841	8,785	8,730	8,675	8,620	8,564	8,509	8,457	105,098
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
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)		9,062	9,007	8,952	8,896	8,841	8,785	8,730	8,675	8,620	8,564	8,509	8,457	105,098
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$9,062	\$9,007	\$8,952	\$8,896	\$8,841	\$8,785	\$8,730	\$8,675	\$8,620	\$8,564	\$8,509	\$8,457	\$105,098

**Notes:**

- (A) Applicable depreciable base for Big Bend; account 312.40
- (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)
- (C) Line 6 x 1.7317% x 1/12.
- (D) Applicable depreciation rate is 12.4%
- (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 2021 to December 2021

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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	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	\$1,316,257
3.	Less: Accumulated Depreciation	(1,079,816)	(1,084,204)	(1,088,592)	(1,092,980)	(1,097,368)	(1,101,756)	(1,106,144)	(1,110,532)	(1,114,920)	(1,119,308)	(1,123,696)	(1,128,084)	(1,132,472)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$236,441	232,053	227,665	223,277	218,889	214,501	210,113	205,725	201,337	196,949	192,561	188,173	183,785	
6.	Average Net Investment		234,247	229,859	225,471	221,083	216,695	212,307	207,919	203,531	199,143	194,755	190,367	185,979	
7.	Return on Average Net Investment		\$1,199	\$1,177	\$1,154	\$1,132	\$1,109	\$1,087	\$1,064	\$1,042	\$1,019	\$997	\$975	\$952	\$12,907
	a. Equity Component Grossed Up For Taxes (B)		338	332	325	319	313	306	300	294	287	281	275	268	3,638
	b. Debt Component Grossed Up For Taxes (C)		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
8.	Investment Expenses		0	0	0	0	0	0	0	0	0	0	0	0	0
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)		5,925	5,897	5,867	5,839	5,810	5,781	5,752	5,724	5,694	5,666	5,638	5,608	69,201
	a. Recoverable Costs Allocated to Energy		5,925	5,897	5,867	5,839	5,810	5,781	5,752	5,724	5,694	5,666	5,638	5,608	69,201
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		5,925	5,897	5,867	5,839	5,810	5,781	5,752	5,724	5,694	5,666	5,638	5,608	69,201
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)		\$5,925	\$5,897	\$5,867	\$5,839	\$5,810	\$5,781	\$5,752	\$5,724	\$5,694	\$5,666	\$5,638	\$5,608	\$69,201

**Notes:**

- (A) Applicable depreciable base for Big Bend; account 312.41
- (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)
- (C) Line 6 x 1.7317% x 1/12.
- (D) Applicable depreciation rate is 4.0%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	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	\$984,794
3.	Less: Accumulated Depreciation	(788,166)	(794,238)	(794,238)	(797,274)	(800,310)	(803,346)	(806,382)	(809,418)	(812,454)	(815,490)	(818,526)	(821,562)	(824,598)	(824,598)
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$196,628	193,592	190,556	187,520	184,484	181,448	178,412	175,376	172,340	169,304	166,268	163,232	160,196	160,196
6.	Average Net Investment	195,110	192,074	189,038	186,002	182,966	179,930	176,894	173,858	170,822	167,786	164,750	161,714	158,678	155,642
7.	Return on Average Net Investment		\$999	\$983	\$968	\$952	\$937	\$921	\$906	\$890	\$874	\$859	\$843	\$828	\$812
	a. Equity Component Grossed Up For Taxes (B)		282	277	273	268	264	260	255	251	247	242	238	233	229
	b. Debt Component Grossed Up For Taxes (C)														
8.	Investment Expenses		3,036	3,036	3,036	3,036	3,036	3,036	3,036	3,036	3,036	3,036	3,036	3,036	3,036
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)	4,317	4,296	4,296	4,277	4,256	4,237	4,217	4,197	4,177	4,157	4,137	4,117	4,097	4,077
	a. Recoverable Costs Allocated to Energy	4,317	4,296	4,296	4,277	4,256	4,237	4,217	4,197	4,177	4,157	4,137	4,117	4,097	4,077
	b. Recoverable Costs Allocated to Demand	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)	4,317	4,296	4,296	4,277	4,256	4,237	4,217	4,197	4,177	4,157	4,137	4,117	4,097	4,077
13.	Retail Demand-Related Recoverable Costs (F)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)	\$4,317	\$4,296	\$4,296	\$4,277	\$4,256	\$4,237	\$4,217	\$4,197	\$4,177	\$4,157	\$4,137	\$4,117	\$4,097	\$4,077

**Notes:**

- (A) Applicable depreciable base for Big Bend; account 312.42
- (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)
- (C) Line 6 x 1.7317% x 1/12.
- (D) Applicable depreciation rate is 3.7%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11



**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

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

Line	Description	Beginning of Period Amount	January	February	March	April	May	June	July	August	September	October	November	December	End of Period Total
1.	Investments		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	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	\$120,737
3.	Less: Accumulated Depreciation	(62,419)	(62,711)	(63,003)	(63,295)	(63,587)	(63,879)	(64,171)	(64,463)	(64,755)	(65,047)	(65,339)	(65,631)	(65,923)	(65,923)
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$58,318	\$58,026	\$57,734	\$57,442	\$71,150	\$68,858	\$66,566	\$64,274	\$61,982	\$59,690	\$57,398	\$55,106	\$52,814	\$54,814
6.	Average Net Investment		58,172	57,880	57,588	57,296	57,004	56,712	56,420	56,128	55,836	55,544	55,252	54,960	54,960
7.	Return on Average Net Investment		\$298	\$296	\$295	\$293	\$292	\$290	\$289	\$287	\$286	\$284	\$283	\$281	\$281
	a. Equity Component Grossed Up For Taxes (B)		84	84	83	83	82	82	81	81	81	80	80	79	80
	b. Debt Component Grossed Up For Taxes (C)		0	0	0	0	0	0	0	0	0	0	0	0	0
8.	Investment Expenses		292	292	292	292	292	292	292	292	292	292	292	292	292
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)		674	672	670	668	666	664	662	660	659	656	655	652	652
	a. Recoverable Costs Allocated to Energy		674	672	670	668	666	664	662	660	659	656	655	652	652
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		674	672	670	668	666	664	662	660	659	656	655	652	652
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)		\$674	\$672	\$670	\$668	\$666	\$664	\$662	\$660	\$659	\$656	\$655	\$652	\$652

**Notes:**  
 (A) Applicable depreciable base for Big Bend; account 311.40  
 (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)  
 (C) Line 6 x 1.7317% x 1/12.  
 (D) Applicable depreciation rate is 2.9%  
 (E) Line 9a x Line 10  
 (F) Line 9b x Line 11

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other - AFUDC (excl from CWIP)		0	0	0	0	0	0	0	0	0	0	0	0	0
2.	Plant-in-Service/Depreciation Base (A)	\$95,255,242	\$95,255,242	\$95,255,242	\$95,255,242	\$95,255,242	\$95,255,242	\$95,255,242	\$95,255,242	\$95,255,242	\$95,255,242	\$95,255,242	\$95,255,242	\$95,255,242	\$95,255,242
3.	Less: Accumulated Depreciation	(64,503,293)	(64,765,212)	(65,027,131)	(65,289,050)	(65,550,969)	(65,812,888)	(66,074,807)	(66,336,726)	(66,598,645)	(66,860,564)	(67,122,483)	(67,384,402)	(67,646,321)	(67,908,240)
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$30,751,949	\$30,490,030	\$30,228,111	\$29,966,192	\$29,704,273	\$29,442,354	\$29,180,435	\$28,918,516	\$28,656,597	\$28,394,678	\$28,132,759	\$27,870,840	\$27,608,921	\$27,347,002
6.	Average Net Investment		30,620,989	30,359,070	30,097,151	29,835,232	29,573,313	29,311,394	29,049,475	28,787,556	28,525,637	28,263,718	28,001,799	27,739,880	27,477,961
7.	Return on Average Net Investment		\$156,756	\$155,416	\$154,075	\$152,734	\$151,393	\$150,052	\$148,712	\$147,371	\$146,030	\$144,689	\$143,348	\$142,007	\$140,666
	a. Equity Component Grossed Up For Taxes (B)		44,189	43,811	43,433	43,055	42,677	42,299	41,921	41,543	41,165	40,787	40,409	40,031	39,653
	b. Debt Component Grossed Up For Taxes (C)		261,919	261,919	261,919	261,919	261,919	261,919	261,919	261,919	261,919	261,919	261,919	261,919	261,919
8.	Investment Expenses		0	0	0	0	0	0	0	0	0	0	0	0	0
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)		462,864	461,146	459,427	457,708	455,989	454,270	452,552	450,833	449,114	447,395	445,676	443,957	442,238
	a. Recoverable Costs Allocated to Energy		462,864	461,146	459,427	457,708	455,989	454,270	452,552	450,833	449,114	447,395	445,676	443,957	442,238
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		462,864	461,146	459,427	457,708	455,989	454,270	452,552	450,833	449,114	447,395	445,676	443,957	442,238
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)		\$462,864	\$461,146	\$459,427	\$457,708	\$455,989	\$454,270	\$452,552	\$450,833	\$449,114	\$447,395	\$445,676	\$443,957	\$442,238

**Notes:**  
 (A) Applicable depreciable base for Big Bend: accounts 312.46 (\$94,929,061), 312.45 (\$105,398), and 315.46 (\$220,782)  
 (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)  
 (C) Line 6 x 1.7317% 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 2021 to December 2021

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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
2.	Plant-in-Service/Depreciation Base (A)	\$22,653,929	\$22,653,929	\$22,653,929	\$22,653,929	\$22,653,929	\$22,653,929	\$22,653,929	\$22,653,929	\$22,653,929	\$22,653,929	\$22,653,929	\$22,653,929	\$22,653,929	\$22,653,929
3.	Less: Accumulated Depreciation	(10,488,770)	(10,536,417)	(10,584,064)	(10,631,711)	(10,679,358)	(10,727,005)	(10,774,652)	(10,822,299)	(10,869,946)	(10,917,593)	(10,965,240)	(11,012,887)	(11,060,534)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$12,165,159	\$12,117,512	\$12,069,865	\$12,022,218	\$11,974,571	\$11,926,924	\$11,879,277	\$11,831,630	\$11,783,983	\$11,736,336	\$11,688,689	\$11,641,042	\$11,593,395	
6.	Average Net Investment		12,141,336	12,083,689	12,046,042	11,998,395	11,950,748	11,903,101	11,855,454	11,807,807	11,760,160	11,712,513	11,664,866	11,617,219	
7.	Return on Average Net Investment		\$62,155	\$61,911	\$61,667	\$61,423	\$61,179	\$60,935	\$60,691	\$60,447	\$60,203	\$59,959	\$59,715	\$59,471	\$729,756
	a. Equity Component Grossed Up For Taxes (B)		17,521	17,452	17,383	17,315	17,246	17,177	17,108	17,040	16,971	16,902	16,833	16,765	205,713
	b. Debt Component Grossed Up For Taxes (C)		47,647	47,647	47,647	47,647	47,647	47,647	47,647	47,647	47,647	47,647	47,647	47,647	571,764
8.	Investment Expenses		0	0	0	0	0	0	0	0	0	0	0	0	0
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)		127,323	127,010	126,697	126,385	126,072	125,759	125,446	125,134	124,821	124,508	124,195	123,883	1,507,233
	a. Recoverable Costs Allocated to Energy		127,323	127,010	126,697	126,385	126,072	125,759	125,446	125,134	124,821	124,508	124,195	123,883	1,507,233
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		127,323	127,010	126,697	126,385	126,072	125,759	125,446	125,134	124,821	124,508	124,195	123,883	1,507,233
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)		\$127,323	\$127,010	\$126,697	\$126,385	\$126,072	\$125,759	\$125,446	\$125,134	\$124,821	\$124,508	\$124,195	\$123,883	\$1,507,233

**Notes:**  
 (A) Applicable depreciable base for Big Bend: accounts 312.45 (\$21,855,886), 311.45 (\$40,016), 316.40 (\$71,401), 315.45 (\$594,901), 312.42 (\$1,637), and 312.40 (\$90,088)  
 (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)  
 (C) Line 6 x 1.7317% x 1/12.  
 (D) Applicable depreciation rates are 2.5%, 2.0%, 4.2%, 3.1%, 3.7%, and 3.4%  
 (E) Line 9a x Line 10  
 (F) Line 9b x Line 11

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

Return on Capital Investments, Depreciation and Taxes  
 For Project: Big Bend NO<sub>x</sub> 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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	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	\$3,190,852
3.	Less: Accumulated Depreciation	1,505,355	1,495,171	1,484,987	1,474,803	1,464,619	1,454,435	1,444,251	1,434,067	1,423,883	1,413,699	1,403,515	1,393,331	1,383,147	1,372,963
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$4,696,207	4,686,023	4,675,839	4,665,655	4,655,471	4,645,287	4,635,103	4,624,919	4,614,735	4,604,551	4,594,367	4,584,183	4,573,999	4,563,815
6.	Average Net Investment		4,691,115	4,680,931	4,670,747	4,660,563	4,650,379	4,640,195	4,630,011	4,619,827	4,609,643	4,599,459	4,589,275	4,579,091	4,568,907
7.	Return on Average Net Investment		\$24,015	\$23,963	\$23,911	\$23,859	\$23,806	\$23,754	\$23,702	\$23,650	\$23,598	\$23,546	\$23,494	\$23,442	\$23,390
	a. Equity Component Grossed Up For Taxes (B)		6,770	6,755	6,740	6,726	6,711	6,696	6,681	6,667	6,652	6,637	6,623	6,608	6,594
	b. Debt Component Grossed Up For Taxes (C)		10,184	10,184	10,184	10,184	10,184	10,184	10,184	10,184	10,184	10,184	10,184	10,184	10,184
8.	Investment Expenses		0	0	0	0	0	0	0	0	0	0	0	0	0
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)		40,969	40,902	40,835	40,769	40,701	40,634	40,567	40,501	40,434	40,367	40,301	40,234	40,167
	a. Recoverable Costs Allocated to Energy		40,969	40,902	40,835	40,769	40,701	40,634	40,567	40,501	40,434	40,367	40,301	40,234	40,167
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		40,969	40,902	40,835	40,769	40,701	40,634	40,567	40,501	40,434	40,367	40,301	40,234	40,167
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)		\$40,969	\$40,902	\$40,835	\$40,769	\$40,701	\$40,634	\$40,567	\$40,501	\$40,434	\$40,367	\$40,301	\$40,234	\$40,167

**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 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)
- (C) Line 6 x 1.7317% 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

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
2.	Plant-in-Service/Depreciation Base (A)	\$19,757,750	\$19,757,750	\$19,757,750	\$19,757,750	\$19,757,750	\$19,757,750	\$19,757,750	\$19,757,750	\$19,757,750	\$19,757,750	\$19,757,750	\$19,757,750	\$19,757,750	\$19,757,750
3.	Less: Accumulated Depreciation	(7,275,250)	(7,336,122)	(7,396,994)	(7,457,866)	(7,518,738)	(7,579,610)	(7,640,482)	(7,701,354)	(7,762,226)	(7,823,098)	(7,883,970)	(7,944,842)	(8,005,714)	(8,066,586)
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$12,482,500	\$12,421,628	\$12,360,756	\$12,299,884	\$12,239,012	\$12,178,140	\$12,117,268	\$12,056,396	\$11,995,524	\$11,934,652	\$11,873,780	\$11,812,908	\$11,752,036	\$11,691,164
6.	Average Net Investment		12,452,064	12,391,192	12,330,320	12,269,448	12,208,576	12,147,704	12,086,832	12,025,960	11,965,088	11,904,216	11,843,344	11,782,472	11,721,600
7.	Return on Average Net Investment		\$63,745	\$63,434	\$63,122	\$62,810	\$62,499	\$62,187	\$61,876	\$61,564	\$61,252	\$60,941	\$60,629	\$60,317	\$60,005
	a. Equity Component Grossed Up For Taxes (B)		17,969	17,862	17,794	17,706	17,618	17,530	17,442	17,354	17,267	17,179	17,091	17,003	16,915
	b. Debt Component Grossed Up For Taxes (C)		45,776	45,572	45,428	45,304	45,199	45,117	45,042	44,974	44,915	44,854	44,792	44,729	44,666
8.	Investment Expenses		60,872	60,872	60,872	60,872	60,872	60,872	60,872	60,872	60,872	60,872	60,872	60,872	60,872
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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		60,872	60,872	60,872	60,872	60,872	60,872	60,872	60,872	60,872	60,872	60,872	60,872	60,872
9.	Total System Recoverable Expenses (Lines 7 + 8)		142,586	142,188	141,788	141,388	140,989	140,589	140,190	139,790	139,391	138,992	138,592	138,192	137,792
	a. Recoverable Costs Allocated to Energy		142,586	142,188	141,788	141,388	140,989	140,589	140,190	139,790	139,391	138,992	138,592	138,192	137,792
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		142,586	142,188	141,788	141,388	140,989	140,589	140,190	139,790	139,391	138,992	138,592	138,192	137,792
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)		\$142,586	\$142,188	\$141,788	\$141,388	\$140,989	\$140,589	\$140,190	\$139,790	\$139,391	\$138,992	\$138,592	\$138,192	\$137,792

**Notes:**  
 (A) Applicable depreciable base for Big Bend: accounts 312.41 (\$5,831,465), 312.42 (\$5,153,072), 312.43 (\$7,875,560), 315.41 (\$17,504), 315.44 (\$351,594), and 315.43 (\$528,554)  
 (B) Line 6 x 6.143% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)  
 (C) Line 6 x 1.7317% x 1/12.  
 (D) Applicable depreciation rates are 4.0%, 3.7%, 3.5%, 3.5%, 3.2%, and 3.6%.  
 (E) Line 9a x Line 10  
 (F) Line 9b x Line 11

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

Return on Capital Investments, Depreciation and Taxes  
 For Project: Polk NO<sub>x</sub> 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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	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	\$1,561,473
3.	Less: Accumulated Depreciation	(895,674)	(900,098)	(904,522)	(908,946)	(913,370)	(917,794)	(922,218)	(926,642)	(931,066)	(935,490)	(939,914)	(944,338)	(948,762)	(948,762)
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$665,799	661,375	656,951	652,527	648,103	643,679	639,255	634,831	630,407	625,983	621,559	617,135	612,711	612,711
6.	Average Net Investment		663,587	659,163	654,739	650,315	645,891	641,467	637,043	632,619	628,195	623,771	619,347	614,923	614,923
7.	Return on Average Net Investment		\$3,397	\$3,374	\$3,352	\$3,329	\$3,306	\$3,284	\$3,261	\$3,239	\$3,216	\$3,193	\$3,171	\$3,148	\$39,270
	a. Equity Component Grossed Up For Taxes (B)		958	951	945	938	932	926	919	913	907	900	894	887	11,070
	b. Debt Component Grossed Up For Taxes (C)		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
8.	Investment Expenses		0	0	0	0	0	0	0	0	0	0	0	0	0
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)		8,779	8,749	8,721	8,691	8,662	8,634	8,604	8,576	8,547	8,517	8,489	8,459	103,428
	a. Recoverable Costs Allocated to Energy		8,779	8,749	8,721	8,691	8,662	8,634	8,604	8,576	8,547	8,517	8,489	8,459	103,428
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		8,779	8,749	8,721	8,691	8,662	8,634	8,604	8,576	8,547	8,517	8,489	8,459	103,428
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)		\$8,779	\$8,749	\$8,721	\$8,691	\$8,662	\$8,634	\$8,604	\$8,576	\$8,547	\$8,517	\$8,489	\$8,459	\$103,428

**Notes:**  
 (A) Applicable depreciable base for Polk; account 342.81  
 (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)  
 (C) Line 6 x 1.7317% 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 2021 to December 2021

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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	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	\$2,558,730
3.	Less: Accumulated Depreciation	(1,139,726)	(1,146,123)	(1,152,520)	(1,158,917)	(1,165,314)	(1,171,711)	(1,178,108)	(1,184,505)	(1,190,902)	(1,197,299)	(1,203,696)	(1,210,093)	(1,216,490)	(1,216,490)
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$1,419,004	\$1,412,607	\$1,406,210	\$1,399,813	\$1,393,416	\$1,387,019	\$1,380,622	\$1,374,225	\$1,367,828	\$1,361,431	\$1,355,034	\$1,348,637	\$1,342,240	\$1,342,240
6.	Average Net Investment	1,415,806	1,409,409	1,403,012	1,396,615	1,390,218	1,383,821	1,377,424	1,371,027	1,364,630	1,358,233	1,351,836	1,345,439	1,345,439	1,345,439
7.	Return on Average Net Investment		\$7,248	\$7,215	\$7,182	\$7,150	\$7,117	\$7,084	\$7,051	\$7,019	\$6,986	\$6,953	\$6,920	\$6,888	\$6,855
	a. Equity Component Grossed Up For Taxes (B)		2,043	2,034	2,025	2,015	2,006	1,997	1,988	1,979	1,969	1,960	1,951	1,942	1,933
	b. Debt Component Grossed Up For Taxes (C)		6,397	6,397	6,397	6,397	6,397	6,397	6,397	6,397	6,397	6,397	6,397	6,397	6,397
8.	Investment Expenses		0	0	0	0	0	0	0	0	0	0	0	0	0
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)	15,688	15,646	15,604	15,562	15,520	15,478	15,436	15,395	15,352	15,310	15,268	15,227	15,185	15,143
	a. Recoverable Costs Allocated to Energy	15,688	15,646	15,604	15,562	15,520	15,478	15,436	15,395	15,352	15,310	15,268	15,227	15,185	15,143
	b. Recoverable Costs Allocated to Demand	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)	15,688	15,646	15,604	15,562	15,520	15,478	15,436	15,395	15,352	15,310	15,268	15,227	15,185	15,143
13.	Retail Demand-Related Recoverable Costs (F)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)	\$15,688	\$15,646	\$15,604	\$15,562	\$15,520	\$15,478	\$15,436	\$15,395	\$15,352	\$15,310	\$15,268	\$15,227	\$15,185	\$15,143

**Notes:**

- (A) Applicable depreciable base for Big Bend: account 312.44
- (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)
- (C) Line 6 x 1.7317% 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 2021 to December 2021

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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	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	\$1,649,121
3.	Less: Accumulated Depreciation	(863,521)	(869,018)	(874,515)	(880,012)	(885,509)	(891,006)	(896,503)	(902,000)	(907,497)	(912,994)	(918,491)	(923,988)	(929,485)	(934,982)
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$785,600	780,103	774,606	769,109	763,612	758,115	752,618	747,121	741,624	736,127	730,630	725,133	719,636	714,139
6.	Average Net Investment		782,852	777,355	771,858	766,361	760,864	755,367	749,870	744,373	738,876	733,379	727,882	722,385	716,888
7.	Return on Average Net Investment		\$4,008	\$3,979	\$3,951	\$3,923	\$3,895	\$3,867	\$3,839	\$3,811	\$3,782	\$3,754	\$3,726	\$3,698	\$3,670
	a. Equity Component Grossed Up For Taxes (B)		1,130	1,122	1,114	1,106	1,098	1,090	1,082	1,074	1,066	1,058	1,050	1,042	1,034
	b. Debt Component Grossed Up For Taxes (C)		5,497	5,497	5,497	5,497	5,497	5,497	5,497	5,497	5,497	5,497	5,497	5,497	5,497
8.	Investment Expenses		0	0	0	0	0	0	0	0	0	0	0	0	0
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)		10,635	10,598	10,562	10,526	10,490	10,454	10,418	10,382	10,345	10,309	10,273	10,237	10,201
	a. Recoverable Costs Allocated to Energy		10,635	10,598	10,562	10,526	10,490	10,454	10,418	10,382	10,345	10,309	10,273	10,237	10,201
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		10,635	10,598	10,562	10,526	10,490	10,454	10,418	10,382	10,345	10,309	10,273	10,237	10,201
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)		\$10,635	\$10,598	\$10,562	\$10,526	\$10,490	\$10,454	\$10,418	\$10,382	\$10,345	\$10,309	\$10,273	\$10,237	\$10,201

**Notes:**

- (A) Applicable depreciable base for Big Bend: account 312.41
- (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)
- (C) Line 6 x 1.7317% x 1/12.
- (D) Applicable depreciation rate is 4.0%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11



**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	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	\$1,581,887
3.	Less: Accumulated Depreciation	(769,892)	(774,769)	(779,646)	(784,523)	(789,400)	(794,277)	(799,154)	(804,031)	(808,908)	(813,785)	(818,662)	(823,539)	(828,416)	(828,416)
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$811,995	807,118	802,241	797,364	792,487	787,610	782,733	777,856	772,979	768,102	763,225	758,348	753,471	753,471
6.	Average Net Investment		809,557	804,680	799,803	794,926	790,049	785,172	780,295	775,418	770,541	765,664	760,787	755,910	755,910
7.	Return on Average Net Investment		\$4,144	\$4,119	\$4,094	\$4,069	\$4,044	\$4,019	\$3,995	\$3,970	\$3,945	\$3,920	\$3,895	\$3,870	\$48,084
	a. Equity Component Grossed Up For Taxes (B)		1,168	1,161	1,154	1,147	1,140	1,133	1,126	1,119	1,112	1,105	1,098	1,091	13,554
	b. Debt Component Grossed Up For Taxes (C)		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
8.	Investment Expenses		0	0	0	0	0	0	0	0	0	0	0	0	0
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)		10,189	10,157	10,125	10,093	10,061	10,029	9,998	9,966	9,934	9,902	9,870	9,838	120,162
	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		10,189	10,157	10,125	10,093	10,061	10,029	9,998	9,966	9,934	9,902	9,870	9,838	120,162
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		10,189	10,157	10,125	10,093	10,061	10,029	9,998	9,966	9,934	9,902	9,870	9,838	120,162
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)		\$10,189	\$10,157	\$10,125	\$10,093	\$10,061	\$10,029	\$9,998	\$9,966	\$9,934	\$9,902	\$9,870	\$9,838	\$120,162

**Notes:**

- (A) Applicable depreciable base for Big Bend; account 312.42
- (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)
- (C) Line 6 x 1.7317% x 1/12.
- (D) Applicable depreciation rate is 3.7%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021  
 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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	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	\$2,706,507
3.	Less: Accumulated Depreciation	(1,118,510)	(1,126,463)	(1,134,416)	(1,142,369)	(1,150,322)	(1,158,275)	(1,166,228)	(1,174,181)	(1,182,134)	(1,190,087)	(1,198,040)	(1,205,993)	(1,213,946)	(1,221,899)
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$1,587,997	\$1,580,044	\$1,572,091	\$1,564,138	\$1,556,185	\$1,548,232	\$1,540,279	\$1,532,326	\$1,524,373	\$1,516,420	\$1,508,467	\$1,500,514	\$1,492,561	\$1,484,608
6.	Average Net Investment		1,584,021	1,576,068	1,568,115	1,560,162	1,552,209	1,544,256	1,536,303	1,528,350	1,520,397	1,512,444	1,504,491	1,496,538	1,488,585
7.	Return on Average Net Investment		\$8,109	\$8,068	\$8,028	\$7,987	\$7,946	\$7,905	\$7,865	\$7,824	\$7,783	\$7,743	\$7,702	\$7,661	\$7,621
	a. Equity Component Grossed Up For Taxes (B)		2,286	2,274	2,263	2,251	2,240	2,228	2,217	2,206	2,194	2,183	2,171	2,160	2,149
	b. Debt Component Grossed Up For Taxes (C)		7,953	7,953	7,953	7,953	7,953	7,953	7,953	7,953	7,953	7,953	7,953	7,953	7,953
8.	Investment Expenses		0	0	0	0	0	0	0	0	0	0	0	0	0
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)		18,348	18,295	18,244	18,191	18,139	18,086	18,035	17,983	17,930	17,879	17,826	17,774	17,722
	a. Recoverable Costs Allocated to Energy		18,348	18,295	18,244	18,191	18,139	18,086	18,035	17,983	17,930	17,879	17,826	17,774	17,722
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		18,348	18,295	18,244	18,191	18,139	18,086	18,035	17,983	17,930	17,879	17,826	17,774	17,722
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)		\$18,348	\$18,295	\$18,244	\$18,191	\$18,139	\$18,086	\$18,035	\$17,983	\$17,930	\$17,879	\$17,826	\$17,774	\$17,722

**Notes:**  
 (A) Applicable depreciable base for Big Bend: account 312.43 (\$1,995,677) and 315.43 (\$710,830)  
 (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)  
 (C) Line 6 x 1.7317% x 1/12.  
 (D) Applicable depreciation rate is 3.5% and 3.6%.  
 (E) Line 9a x Line 10  
 (F) Line 9b x Line 11

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
**January 2021 to December 2021**

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	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	\$85,719,102
3.	Less: Accumulated Depreciation	(39,979,614)	(40,288,780)	(40,597,946)	(40,907,112)	(41,216,278)	(41,525,444)	(41,834,610)	(42,143,776)	(42,452,942)	(42,762,108)	(43,071,274)	(43,380,440)	(43,689,606)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$45,739,488	\$45,430,322	\$45,121,156	\$44,811,990	\$44,502,824	\$44,193,658	\$43,884,492	\$43,575,326	\$43,266,160	\$42,956,994	\$42,647,828	\$42,338,662	\$42,029,496	
6.	Average Net Investment		45,584,905	45,275,739	44,966,573	44,657,407	44,348,241	44,039,075	43,729,909	43,420,743	43,111,577	42,802,411	42,493,245	42,184,079	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		\$233,361	\$231,778	\$230,195	\$228,612	\$227,030	\$225,447	\$223,864	\$222,282	\$220,699	\$219,116	\$217,534	\$215,951	\$2,695,869
	b. Debt Component Grossed Up For Taxes (C)		65,783	65,337	64,891	64,444	63,998	63,552	63,106	62,660	62,214	61,767	61,321	60,875	798,948
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)		608,310	606,281	604,252	602,222	600,194	598,165	596,136	594,108	592,079	590,049	588,021	585,992	7,165,809
	a. Recoverable Costs Allocated to Energy		608,310	606,281	604,252	602,222	600,194	598,165	596,136	594,108	592,079	590,049	588,021	585,992	7,165,809
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		608,310	606,281	604,252	602,222	600,194	598,165	596,136	594,108	592,079	590,049	588,021	585,992	7,165,809
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)		\$608,310	\$606,281	\$604,252	\$602,222	\$600,194	\$598,165	\$596,136	\$594,108	\$592,079	\$590,049	\$588,021	\$585,992	\$7,165,809

**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 (\$647,203).
- (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)
- (C) Line 6 x 1.7317% 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

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
**January 2021 to December 2021**

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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
2.	Plant-in-Service/Depreciation Base (A)	\$96,538,133	\$96,538,133	\$96,538,133	\$96,538,133	\$96,538,133	\$96,538,133	\$96,538,133	\$96,538,133	\$96,538,133	\$96,538,133	\$96,538,133	\$96,538,133	\$96,538,133	\$96,538,133
	Less: Accumulated Depreciation	(42,023,760)	(42,336,137)	(42,648,514)	(42,960,891)	(43,273,268)	(43,585,645)	(43,898,022)	(44,210,399)	(44,522,776)	(44,835,153)	(45,147,530)	(45,459,907)	(45,772,284)	
3.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.	Net Investment (Lines 2 + 3 + 4)	\$54,514,373	\$54,201,996	\$53,889,619	\$53,577,242	\$53,264,865	\$52,952,488	\$52,640,111	\$52,327,734	\$52,015,357	\$51,702,980	\$51,390,603	\$51,078,226	\$50,765,849	
5.	Average Net Investment		54,358,184	54,045,807	53,733,430	53,421,063	53,108,676	52,796,299	52,483,922	52,171,545	51,859,168	51,546,791	51,234,414	50,922,037	
6.	Return on Average Net Investment		\$278,273	\$276,674	\$275,075	\$273,476	\$271,877	\$270,277	\$268,678	\$267,079	\$265,480	\$263,881	\$262,282	\$260,683	\$3,233,735
	a. Equity Component Grossed Up For Taxes (B)		78,443	77,983	77,542	77,091	76,640	76,189	75,739	75,288	74,837	74,386	73,936	73,485	911,569
	b. Debt Component Grossed Up For Taxes (C)														
7.	Investment Expenses		312,377	312,377	312,377	312,377	312,377	312,377	312,377	312,377	312,377	312,377	312,377	312,377	3,748,524
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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
8.	Total System Recoverable Expenses (Lines 7 + 8)		669,093	667,044	664,994	662,944	660,894	658,843	656,794	654,744	652,694	650,644	648,595	646,545	7,893,828
	a. Recoverable Costs Allocated to Energy		669,093	667,044	664,994	662,944	660,894	658,843	656,794	654,744	652,694	650,644	648,595	646,545	7,893,828
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	10,000,000
10.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	10,000,000
11.	Retail Energy-Related Recoverable Costs (E)		669,093	667,044	664,994	662,944	660,894	658,843	656,794	654,744	652,694	650,644	648,595	646,545	7,893,828
12.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	0	0	0	0
13.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$669,093	\$667,044	\$664,994	\$662,944	\$660,894	\$658,843	\$656,794	\$654,744	\$652,694	\$650,644	\$648,595	\$646,545	\$7,893,828

**Notes:**  
 (A) Applicable depreciable base for Big Bend: account 311.52 (\$25,208,869), 312.52 (\$54,456,221), 315.52 (\$15,914,427), and 316.52 (\$958,616).  
 (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32850).  
 (C) Line 6 x 1.7317% 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

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	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	\$81,764,602
3.	Less: Accumulated Depreciation	(37,013,361)	(37,265,435)	(37,517,509)	(37,769,583)	(38,021,657)	(38,273,731)	(38,525,805)	(38,777,879)	(39,029,953)	(39,282,027)	(39,534,101)	(39,786,175)	(40,038,249)	(40,290,323)
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$44,751,241	\$44,499,167	\$44,247,093	\$43,985,019	\$43,742,945	\$43,490,871	\$43,238,797	\$42,986,723	\$42,734,649	\$42,482,575	\$42,230,501	\$41,978,427	\$41,726,353	\$41,474,279
6.	Average Net Investment		44,625,204	44,373,130	44,121,056	43,868,982	43,616,908	43,364,834	43,112,760	42,860,686	42,608,612	42,356,538	42,104,464	41,852,390	41,600,316
7.	Return on Average Net Investment		\$228,448	\$227,157	\$225,867	\$224,576	\$223,286	\$221,995	\$220,705	\$219,415	\$218,124	\$216,834	\$215,543	\$214,253	\$212,962
	a. Equity Component Grossed Up For Taxes (B)		64,398	64,034	63,670	63,307	62,943	62,579	62,215	61,852	61,488	61,124	60,760	60,396	60,032
	b. Debt Component Grossed Up For Taxes (C)		252,074	252,074	252,074	252,074	252,074	252,074	252,074	252,074	252,074	252,074	252,074	252,074	252,074
8.	Investment Expenses		0	0	0	0	0	0	0	0	0	0	0	0	0
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)		544,920	543,265	541,611	539,957	538,303	536,648	534,994	533,341	531,686	530,032	528,377	526,723	525,069
	a. Recoverable Costs Allocated to Energy		544,920	543,265	541,611	539,957	538,303	536,648	534,994	533,341	531,686	530,032	528,377	526,723	525,069
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		544,920	543,265	541,611	539,957	538,303	536,648	534,994	533,341	531,686	530,032	528,377	526,723	525,069
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)		\$544,920	\$543,265	\$541,611	\$539,957	\$538,303	\$536,648	\$534,994	\$533,341	\$531,686	\$530,032	\$528,377	\$526,723	\$525,069

**Notes:**  
 (A) Applicable depreciable base for Big Bend: account 311.53 (\$21,669,422), 312.53 (\$45,559,543), 315.53 (\$13,690,954), and 316.53 (\$824,684).  
 (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830).  
 (C) Line 6 x 1.7317% x 1/12.  
 (D) Applicable depreciation rates are 3.1%, 3.9%, 4.0%, and 3.4%.  
 (E) Line 9a x Line 10  
 (F) Line 9b x Line 11

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

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	\$50,000	\$125,000	\$75,000	\$50,000	\$250,000	\$200,000	\$45,000	\$0	\$0	\$795,000
	b. Clearings to Plant		0	0	0	0	0	0	0	550,000	200,000	45,000	0	0	795,000
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
2.	Plant-in-Service/Depreciation Base (A)	\$66,814,861	\$66,814,861	\$66,814,861	\$66,814,861	\$66,814,861	\$66,814,861	\$66,814,861	\$66,814,861	\$67,364,861	\$67,564,861	\$67,609,861	\$67,609,861	\$67,609,861	\$67,609,861
3.	Less: Accumulated Depreciation	(29,385,303)	(29,577,771)	(29,770,239)	(29,962,707)	(30,155,175)	(30,347,643)	(30,540,111)	(30,732,579)	(30,925,047)	(31,118,890)	(31,313,233)	(31,507,689)	(31,702,145)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	50,000	175,000	250,000	300,000	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$37,429,558	\$37,237,090	\$37,044,622	\$36,852,154	\$36,709,686	\$36,642,218	\$36,524,750	\$36,382,282	\$36,439,814	\$36,445,971	\$36,296,628	\$36,102,172	\$35,907,716	
6.	Average Net Investment		37,333,324	37,140,856	36,948,388	36,780,920	36,675,952	36,583,484	36,453,516	36,411,048	36,442,892	36,371,299	36,199,400	36,004,944	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		\$191,119	\$190,133	\$189,148	\$188,291	\$187,753	\$187,280	\$186,615	\$186,397	\$186,560	\$186,194	\$185,314	\$184,318	\$2,249,122
	b. Debt Component Grossed Up For Taxes (C)		53,875	53,597	53,320	53,078	52,926	52,793	52,605	52,544	52,590	52,487	52,239	51,958	634,012
8.	Investment Expenses														
	a. Depreciation (D)		192,468	192,468	192,468	192,468	192,468	192,468	192,468	192,468	193,843	194,343	194,456	194,456	2,316,842
	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)		437,462	436,198	434,936	433,837	433,147	432,541	431,888	431,409	432,983	433,024	432,009	430,732	5,199,976
	a. Recoverable Costs Allocated to Energy		437,462	436,198	434,936	433,837	433,147	432,541	431,888	431,409	432,983	433,024	432,009	430,732	5,199,976
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		437,462	436,198	434,936	433,837	433,147	432,541	431,888	431,409	432,983	433,024	432,009	430,732	5,199,976
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)		\$437,462	\$436,198	\$434,936	\$433,837	\$433,147	\$432,541	\$431,888	\$431,409	\$432,983	\$433,024	\$432,009	\$430,732	\$5,199,976

**Notes:**  
 (A) Applicable depreciable base for Big Bend: account 311.54 (\$16,857,250), 312.54 (\$38,069,546), 315.54 (\$10,642,027), 316.54 (\$687,934), 315.40 (\$558,103), and 312.44 (\$795,000)  
 (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)  
 (C) Line 6 x 1.7317% x 1/12.  
 (D) Applicable depreciation rates are 2.4%, 3.8%, 3.8%, 3.8%, 3.3%, 3.7%, and 3.0%  
 (E) Line 9a x Line 10  
 (F) Line 9b x Line 11

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
2.	Plant-in-Service/Depreciation Base (A)	\$24,467,806	\$24,467,806	\$24,467,806	\$24,467,806	\$24,467,806	\$24,467,806	\$24,467,806	\$24,467,806	\$24,467,806	\$24,467,806	\$24,467,806	\$24,467,806	\$24,467,806	\$24,467,806
3.	Less: Accumulated Depreciation	(6,453,865)	(6,505,447)	(6,557,029)	(6,608,611)	(6,660,193)	(6,711,775)	(6,763,357)	(6,814,939)	(6,866,521)	(6,918,103)	(6,969,685)	(7,021,267)	(7,072,849)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$18,013,941	17,962,359	17,910,777	17,859,195	17,807,613	17,756,031	17,704,449	17,652,867	17,601,285	17,549,703	17,498,121	17,446,539	17,394,957	
6.	Average Net Investment	17,988,150	17,936,588	17,884,986	17,833,404	17,781,822	17,730,240	17,678,658	17,627,076	17,575,494	17,523,912	17,472,330	17,420,748		
7.	Return on Average Net Investment		\$92,086	\$91,822	\$91,558	\$91,294	\$91,030	\$90,766	\$90,501	\$90,237	\$89,973	\$89,709	\$89,445	\$89,181	\$1,087,602
	a. Equity Component Grossed Up For Taxes (B)		25,958	25,884	25,810	25,735	25,661	25,586	25,512	25,437	25,363	25,288	25,214	25,140	306,588
	b. Debt Component Grossed Up For Taxes (C)		0	0	0	0	0	0	0	0	0	0	0	0	0
8.	Investment Expenses		51,582	51,582	51,582	51,582	51,582	51,582	51,582	51,582	51,582	51,582	51,582	51,582	618,984
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)		169,626	169,288	168,950	168,611	168,273	167,934	167,595	167,256	166,918	166,579	166,241	165,903	2,013,174
	a. Recoverable Costs Allocated to Energy		169,626	169,288	168,950	168,611	168,273	167,934	167,595	167,256	166,918	166,579	166,241	165,903	2,013,174
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		169,626	169,288	168,950	168,611	168,273	167,934	167,595	167,256	166,918	166,579	166,241	165,903	2,013,174
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)		\$169,626	\$169,288	\$168,950	\$168,611	\$168,273	\$167,934	\$167,595	\$167,256	\$166,918	\$166,579	\$166,241	\$165,903	\$2,013,174

**Notes:**

- (A) Applicable depreciable base for Big Bend: account 312.45 (\$23,011,597) and 312.44 (\$1,456,209).
- (B) Line 6 x 6.143% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830).
- (C) Line 6 x 1.7317% x 1/12.
- (D) Applicable depreciation rate is 2.5% and 3.0%.
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other - AFUDC (excl from CWIP)		0	0	0	0	0	0	0	0	0	0	0	0	0
2.	Plant-in-Service/Depreciation Base (A)	\$8,621,413	\$8,621,413	\$8,621,413	\$8,621,413	\$8,621,413	\$8,621,413	\$8,621,413	\$8,621,413	\$8,621,413	\$8,621,413	\$8,621,413	\$8,621,413	\$8,621,413	\$8,621,413
3.	Less: Accumulated Depreciation	(1,955,259)	(1,977,555)	(1,999,851)	(2,022,147)	(2,044,443)	(2,066,739)	(2,089,035)	(2,111,331)	(2,133,627)	(2,155,923)	(2,178,219)	(2,200,515)	(2,222,811)	(2,222,811)
4.	CWIP - Non-Interest Bearing	13,614	13,614	13,614	13,614	13,614	13,614	13,614	13,614	13,614	13,614	13,614	13,614	13,614	13,614
5.	Net Investment (Lines 2 + 3 + 4)	\$6,679,769	6,657,473	6,635,177	6,612,881	6,590,585	6,568,289	6,545,993	6,523,697	6,501,401	6,479,105	6,456,809	6,434,513	6,412,217	6,412,217
6.	Average Net Investment		6,668,621	6,646,325	6,624,029	6,601,733	6,579,437	6,557,141	6,534,845	6,512,549	6,490,253	6,467,957	6,445,661	6,423,365	6,423,365
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		\$34,138	\$34,024	\$33,910	\$33,796	\$33,682	\$33,568	\$33,454	\$33,339	\$33,225	\$33,111	\$32,997	\$32,883	\$402,127
	b. Debt Component Grossed Up For Taxes (C)		9,623	9,591	9,559	9,527	9,495	9,463	9,430	9,398	9,366	9,334	9,302	9,269	113,357
8.	Investment Expenses														
	a. Depreciation (D)		22,296	22,296	22,296	22,296	22,296	22,296	22,296	22,296	22,296	22,296	22,296	22,296	267,552
	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)		66,057	65,911	65,765	65,619	65,473	65,327	65,180	65,033	64,887	64,741	64,595	64,448	783,036
	a. Recoverable Costs Allocated to Energy		66,057	65,911	65,765	65,619	65,473	65,327	65,180	65,033	64,887	64,741	64,595	64,448	783,036
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		66,057	65,911	65,765	65,619	65,473	65,327	65,180	65,033	64,887	64,741	64,595	64,448	783,036
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)		\$66,057	\$65,911	\$65,765	\$65,619	\$65,473	\$65,327	\$65,180	\$65,033	\$64,887	\$64,741	\$64,595	\$64,448	\$783,036

**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), 312.45 (\$2,053,017), 312.46 (\$1,242,315), 315.44 (\$16,035), 315.45 (\$40,217) and 315.46 (\$50,784), 311.40 (\$13,216), 345.81 (\$2,232), 312.54 (\$210,295) and 395.00 (\$35,016)  
 (B) Line 6 x 6.143% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)  
 (C) Line 6 x 1.7317% x 1/12.  
 (D) Applicable depreciation rate is 3.0%, 2.2%, 3.7%, 3.5%, 3.3%, 2.5%, 3.3%, 3.2%, 3.1%, 3.5%, 2.9%, 2.9%, 3.3%, 3.8%, and 14.3%  
 (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 2021 to December 2021**

For Project: SO<sub>2</sub> 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	0
	c. Auction Proceeds/Other		0	0	0	0	0	0	0	0	0	0	0	0	0
2.	Working Capital Balance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. FERC 158.1 Allowance Inventory	0	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	0
	c. FERC 182.3 Other Regl. Assets - Losses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	d. FERC 254.01 Regulatory Liabilities - Gains	(34,246)	(34,238)	(34,238)	(34,238)	(34,229)	(34,229)	(34,229)	(34,221)	(34,221)	(34,212)	(34,212)	(34,212)	(34,212)	(34,212)
3.	Total Working Capital Balance	(34,246)	(34,238)	(34,238)	(34,238)	(34,229)	(34,229)	(34,229)	(34,221)	(34,221)	(34,212)	(34,212)	(34,212)	(34,212)	(34,212)
4.	Average Net Working Capital Balance		(\$34,242)	(\$34,238)	(\$34,238)	(\$34,233)	(\$34,229)	(\$34,229)	(\$34,225)	(\$34,221)	(\$34,221)	(\$34,217)	(\$34,212)	(\$34,212)	(\$34,212)
5.	Return on Average Net Working Capital Balance		(\$175)	(\$175)	(\$175)	(\$175)	(\$175)	(\$175)	(\$175)	(\$175)	(\$175)	(\$175)	(\$175)	(\$175)	(\$175)
	a. Equity Component Grossed Up For Taxes (A)		(49)	(49)	(49)	(49)	(49)	(49)	(49)	(49)	(49)	(49)	(49)	(49)	(49)
	b. Debt Component Grossed Up For Taxes (B)		(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)
6.	Total Return Component		(273)	(273)	(273)	(273)	(273)	(273)	(273)	(273)	(273)	(273)	(273)	(273)	(273)
7.	Expenses:														
	a. Gains		1	2	3	4	5	6	7	8	9	10	11	12	12
	b. Losses		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. SO <sub>2</sub> Allowance Expense		(4)	4	4	(4)	4	4	(4)	4	4	(4)	4	4	15
	d. Net Expenses (D)		(4)	4	4	(4)	4	4	(4)	4	4	(4)	4	4	15
9.	Total System Recoverable Expenses (Lines 6 + 8)		(228)	(220)	(220)	(228)	(220)	(220)	(228)	(220)	(220)	(228)	(220)	(220)	(2,673)
	a. Recoverable Costs Allocated to Energy		(228)	(220)	(220)	(228)	(220)	(220)	(228)	(220)	(220)	(228)	(220)	(220)	(2,673)
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		(228)	(220)	(220)	(228)	(220)	(220)	(228)	(220)	(220)	(228)	(220)	(220)	(2,672)
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)		(228)	(220)	(220)	(228)	(220)	(220)	(228)	(220)	(220)	(228)	(220)	(220)	(2,672)
			(\$228)	(\$220)	(\$220)	(\$228)	(\$220)	(\$220)	(\$228)	(\$220)	(\$220)	(\$228)	(\$220)	(\$220)	(\$2,672)

**Notes:**  
 (A) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)  
 (B) Line 6 x 1.7317% 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

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

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		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	a. Expenditures/Additions		0	0	0	0	0	0	0	0	0	0	0	0	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	0
	d. Other - AFUDC (excl from CWIP)		0	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	\$21,467,359
3.	Less: Accumulated Depreciation	(3,777,423)	(3,829,302)	(3,881,181)	(3,933,060)	(3,984,939)	(4,036,818)	(4,088,697)	(4,140,576)	(4,192,455)	(4,244,334)	(4,296,213)	(4,348,092)	(4,399,971)	(4,399,971)
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$17,689,936	17,638,057	17,586,178	17,534,299	17,482,420	17,430,541	17,378,662	17,326,783	17,274,904	17,223,025	17,171,146	17,119,267	17,067,388	17,067,388
6.	Average Net Investment		17,663,997	17,612,118	17,560,239	17,508,360	17,456,481	17,404,602	17,352,723	17,300,844	17,248,965	17,197,086	17,145,207	17,093,328	17,093,328
7.	Return on Average Net Investment		\$90,426	\$90,161	\$89,895	\$89,630	\$89,364	\$89,099	\$88,833	\$88,567	\$88,302	\$88,036	\$87,771	\$87,505	\$1,067,589
	a. Equity Component Grossed Up For Taxes (B)		25,491	25,416	25,341	25,266	25,191	25,116	25,041	24,967	24,892	24,817	24,742	24,667	300,947
	b. Debt Component Grossed Up For Taxes (C)		64,935	64,745	64,554	64,364	64,173	63,982	63,791	63,600	63,409	63,218	63,027	62,836	62,838
8.	Investment Expenses		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
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)		167,796	167,456	167,115	166,775	166,434	166,094	165,753	165,413	165,073	164,732	164,392	164,051	1,991,084
	a. Recoverable Costs Allocated to Energy		167,796	167,456	167,115	166,775	166,434	166,094	165,753	165,413	165,073	164,732	164,392	164,051	1,991,084
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)		167,796	167,456	167,115	166,775	166,434	166,094	165,753	165,413	165,073	164,732	164,392	164,051	1,991,084
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)		\$167,796	\$167,456	\$167,115	\$166,775	\$166,434	\$166,094	\$165,753	\$165,413	\$165,073	\$164,732	\$164,392	\$164,051	\$1,991,084

Notes:  
 (A) Applicable depreciable base for Big Bend: accounts 311, 40  
 (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)  
 (C) Line 6 x 1.7317% x 1/12.  
 (D) Applicable depreciation rate is 2.9%  
 (E) Line 9a x Line 10  
 (F) Line 9b x Line 11

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

Return on Capital Investments, Depreciation and Taxes  
 For Project: Big Bend CCR Rule - Phase I  
 (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		\$421,000	\$389,000	\$165,000	\$45,000	\$2,500	\$2,500	\$0	\$0	\$0	\$0	\$0	\$0	\$1,025,000
	a. Expenditures/Additions		0	600,000	115,000	35,000	0	0	0	0	0	2,361,187	0	0	3,111,187
	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	0
	d. Other - AFUDC (excl from CWIP)		0	0	0	0	0	0	0	0	0	0	0	0	0
2.	Plant-in-Service/Depreciation Base (A)	\$830,303	\$930,303	\$1,530,303	\$1,645,303	\$1,680,303	\$1,680,303	\$1,680,303	\$1,680,303	\$1,680,303	\$1,680,303	\$4,041,490	\$4,041,490	\$4,041,490	\$4,041,490
3.	Less: Accumulated Depreciation	(77,769)	(80,073)	(82,377)	(86,381)	(90,711)	(95,140)	(99,569)	(103,998)	(108,427)	(112,856)	(117,285)	(128,404)	(139,523)	(139,523)
4.	CWIP - Non-Interest Bearing	2,086,187	2,507,187	2,296,187	2,346,187	2,356,187	2,358,687	2,361,187	2,361,187	2,361,187	2,361,187	0	0	0	0
5.	Net Investment (Lines 2 + 3 + 4)	\$2,938,721	3,357,417	3,744,113	3,905,109	3,945,779	3,943,850	3,941,921	3,937,492	3,933,063	3,928,634	3,924,205	3,913,086	3,901,967	3,901,967
6.	Average Net Investment		3,148,069	3,550,765	3,824,611	3,925,444	3,944,814	3,942,885	3,939,706	3,935,277	3,930,848	3,926,419	3,918,645	3,907,526	3,907,526
7.	Return on Average Net Investment		\$16,116	\$18,177	\$19,579	\$20,095	\$20,194	\$20,185	\$20,168	\$20,146	\$20,123	\$20,100	\$20,061	\$20,004	\$20,004
	a. Equity Component Grossed Up For Taxes (B)		4,543	5,124	5,519	5,665	5,693	5,690	5,685	5,679	5,673	5,666	5,655	5,639	5,639
	b. Debt Component Grossed Up For Taxes (C)		2,304	2,304	4,004	4,330	4,429	4,429	4,429	4,429	4,429	4,429	11,119	11,119	11,119
8.	Investment Expenses		0	0	0	0	0	0	0	0	0	0	0	0	0
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	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)		22,963	25,605	29,102	30,090	30,316	30,304	30,282	30,254	30,225	30,195	36,835	36,762	362,933
	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		22,963	25,605	29,102	30,090	30,316	30,304	30,282	30,254	30,225	30,195	36,835	36,762	362,933
10.	Energy Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
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)		22,963	25,605	29,102	30,090	30,316	30,304	30,282	30,254	30,225	30,195	36,835	36,762	362,933
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$22,963	\$25,605	\$29,102	\$30,090	\$30,316	\$30,304	\$30,282	\$30,254	\$30,225	\$30,195	\$36,835	\$36,762	\$362,933

**Notes:**  
 (A) Applicable depreciable base for Big Bend: accounts 311.40 (\$261,568), 312.44 (\$668,735), and 312.40 (\$3,111,187)  
 (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)  
 (C) Line 6 x 1.7317% x 1/12.  
 (D) Applicable depreciation rate is 2.9%, 3.0%, and 3.4%  
 (E) Line 9a x Line 10  
 (F) Line 9b x Line 11

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
 January 2021 to December 2021

Return on Capital Investments, Depreciation and Taxes  
 For Project: Big Bend CCR Rule - Phase II  
 (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		\$130,000	\$85,000	\$160,000	\$41,368	\$37,000	\$8,000	\$5,000	\$5,000	\$0	\$0	\$0	\$0	\$471,368
	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	0
	d. Other - AFUDC (excl from CWIP)		0	0	0	0	0	0	0	0	0	0	0	0	0
2.	Plant-in-Service/Depreciation Base (A)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,999,853	\$3,999,853	\$3,999,853	\$3,999,853
3.	Less: Accumulated Depreciation	0	0	0	0	0	0	0	0	0	0	0	(10,000)	(20,000)	0
4.	CWIP - Non-Interest Bearing	3,528,485	3,658,485	3,743,485	3,903,485	3,944,853	3,981,853	3,989,853	3,994,853	3,999,853	3,999,853	3,999,853	3,999,853	3,999,853	3,999,853
5.	Net Investment (Lines 2 + 3 + 4)	\$3,528,485	3,658,485	3,743,485	3,903,485	3,944,853	3,981,853	3,989,853	3,994,853	3,999,853	3,999,853	3,999,853	3,999,853	3,999,853	3,979,853
6.	Average Net Investment	3,593,485	3,700,985	3,823,485	3,924,169	3,963,353	3,985,853	3,992,353	3,997,353	3,999,853	3,999,853	3,999,853	3,999,853	3,994,853	3,984,853
7.	Return on Average Net Investment		\$18,396	\$18,946	\$19,573	\$20,089	\$20,289	\$20,405	\$20,438	\$20,463	\$20,476	\$20,476	\$20,451	\$20,399	\$240,401
	a. Equity Component Grossed Up For Taxes (B)		5,186	5,341	5,518	5,663	5,719	5,752	5,761	5,769	5,772	5,772	5,765	5,750	67,768
	b. Debt Component Grossed Up For Taxes (C)		0	0	0	0	0	0	0	0	0	0	0	0	0
8.	Investment Expenses		0	0	0	0	0	0	0	0	0	0	0	0	20,000
	a. Depreciation (D)		0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)	23,582	24,287	25,091	25,752	26,008	26,157	26,199	26,232	26,232	26,248	26,248	26,216	26,149	328,169
	a. Recoverable Costs Allocated to Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Recoverable Costs Allocated to Demand	23,582	24,287	25,091	25,752	26,008	26,157	26,199	26,232	26,232	26,248	26,248	26,216	26,149	328,169
10.	Energy Jurisdictional Factor	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
11.	Demand Jurisdictional Factor	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
12.	Retail Energy-Related Recoverable Costs (E)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.	Retail Demand-Related Recoverable Costs (F)	23,582	24,287	25,091	25,752	26,008	26,157	26,199	26,232	26,232	26,248	26,248	26,216	26,149	328,169
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)	\$23,582	\$24,287	\$25,091	\$25,752	\$26,008	\$26,157	\$26,199	\$26,232	\$26,232	\$26,248	\$26,248	\$26,216	\$26,149	\$328,169

**Notes:**

- (A) Applicable depreciable base for Big Bend; accounts 312.44
- (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)
- (C) Line 6 x 1.7317% 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 2021 to December 2021

Return on Capital Investments, Depreciation and Taxes  
 For Project: Big Bend ELG Compliance  
 (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		\$890,366	\$512,033	\$885,870	\$890,299	\$885,870	\$1,063,044	\$1,266,794	\$1,314,333	\$1,240,218	\$1,281,475	\$1,257,935	\$1,328,804	\$12,817,041
	b. Clearings to Plant	0	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	0	0
	d. Other - AFUDC (excl from CWIP)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.	Plant-in-Service/Depreciation Base (A)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3.	Less: Accumulated Depreciation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.	CWIP - Non-Interest Bearing	4,261,136	5,151,502	5,663,535	6,549,405	7,439,704	8,325,574	9,388,618	10,655,412	11,969,745	13,209,963	14,491,438	15,749,373	17,078,177	17,078,177
5.	Net Investment (Lines 2 + 3 + 4)	\$4,261,136	5,151,502	5,663,535	6,549,405	7,439,704	8,325,574	9,388,618	10,655,412	11,969,745	13,209,963	14,491,438	15,749,373	17,078,177	17,078,177
6.	Average Net Investment	4,706,319	5,407,518	5,407,518	6,106,470	6,994,554	7,882,639	8,857,096	10,022,015	11,312,578	12,589,854	13,850,700	15,120,405	16,413,775	16,413,775
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)	\$24,093	\$27,682	\$27,682	\$31,261	\$35,807	\$40,353	\$45,342	\$51,305	\$57,912	\$64,451	\$70,905	\$77,405	\$84,026	\$610,542
	b. Debt Component Grossed Up For Taxes (C)	6,792	7,803	7,803	8,812	10,094	11,375	12,782	14,463	16,325	18,168	19,988	21,820	23,686	172,108
8.	Investment Expenses														
	a. Depreciation (D)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Amortization	0	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	0
	d. Property Taxes	0	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	0
9.	Total System Recoverable Expenses (Lines 7 + 8)	30,885	35,485	35,485	40,073	45,901	51,728	58,124	65,768	74,237	82,619	90,893	99,225	107,712	782,650
	a. Recoverable Costs Allocated to Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Recoverable Costs Allocated to Demand	30,885	35,485	35,485	40,073	45,901	51,728	58,124	65,768	74,237	82,619	90,893	99,225	107,712	782,650
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	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	1,0000000	1,0000000
12.	Retail Energy-Related Recoverable Costs (E)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.	Retail Demand-Related Recoverable Costs (F)	30,885	35,485	35,485	40,073	45,901	51,728	58,124	65,768	74,237	82,619	90,893	99,225	107,712	782,650
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)	\$30,885	\$35,485	\$35,485	\$40,073	\$45,901	\$51,728	\$58,124	\$65,768	\$74,237	\$82,619	\$90,893	\$99,225	\$107,712	\$782,650

**Notes:**  
 (A) Applicable depreciable base for Big Bend: accounts TBD depending on type of plant added  
 (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)  
 (C) Line 6 x 1.7317% x 1/12.  
 (D) Applicable depreciation rate is TBD depending on type of plant added  
 (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 2021 to December 2021

Return on Capital Investments, Depreciation and Taxes  
 For Project: Big Bend Unit 1 Sec. 316(b) Impingement Mortality  
 (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		\$470,042	\$452,000	\$772,000	\$651,000	\$719,000	\$865,000	\$960,000	\$1,100,000	\$2,508,912	\$821,239	\$670,000	\$467,807	\$10,457,000
	b. Clearings to Plant	0	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	0	0
	d. Other - AFUDC (excl from CWIP)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.	Plant-in-Service/Depreciation Base (A)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3.	Less: Accumulated Depreciation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.	CWIP - Non-Interest Bearing	1,051,430	1,521,472	1,973,472	2,745,472	3,396,472	4,115,472	4,960,472	5,940,472	7,040,472	9,549,384	10,370,623	11,040,623	11,508,430	11,508,430
5.	Net Investment (Lines 2 + 3 + 4)	\$1,051,430	1,521,472	1,973,472	2,745,472	3,396,472	4,115,472	4,960,472	5,940,472	7,040,472	9,549,384	10,370,623	11,040,623	11,508,430	11,508,430
6.	Average Net Investment	1,286,451	1,747,472	2,359,472	3,070,972	3,755,972	4,547,972	5,460,472	6,490,472	7,755,972	9,294,928	10,705,623	12,274,527	14,000,000	14,000,000
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)	\$6,586	\$8,946	\$12,079	\$15,721	\$19,228	\$23,282	\$27,954	\$33,226	\$39,366	\$46,464	\$54,988	\$64,805	\$75,717	\$87,996
	b. Debt Component Grossed Up For Taxes (C)	1,856	2,522	3,405	4,432	5,420	6,563	7,880	9,366	10,972	12,790	14,733	16,805	19,000	21,333
8.	Investment Expenses														
	a. Depreciation (D)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Amortization	0	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	0
	d. Property Taxes	0	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	0
9.	Total System Recoverable Expenses (Lines 7 + 8)	8,442	11,468	15,484	20,153	24,648	29,845	35,834	42,592	50,332	59,254	69,361	80,605	93,000	107,329
	a. Recoverable Costs Allocated to Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Recoverable Costs Allocated to Demand	8,442	11,468	15,484	20,153	24,648	29,845	35,834	42,592	50,332	59,254	69,361	80,605	93,000	
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	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	1,0000000	1,0000000
12.	Retail Energy-Related Recoverable Costs (E)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.	Retail Demand-Related Recoverable Costs (F)	8,442	11,468	15,484	20,153	24,648	29,845	35,834	42,592	50,332	59,254	69,361	80,605	93,000	
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)	\$8,442	\$11,468	\$15,484	\$20,153	\$24,648	\$29,845	\$35,834	\$42,592	\$50,332	\$59,254	\$69,361	\$80,605	\$93,000	\$107,329

**Notes:**  
 (A) Applicable depreciable base for Big Bend: accounts TBD depending on type of plant added  
 (B) Line 6 x 6.1431% x 1/12. Based on ROE of 10.25% and weighted income tax rate of 24.522% (expansion factor of 1.32830)  
 (C) Line 6 x 1.7317% x 1/12.  
 (D) Applicable depreciation rate is TBD depending on type of plant added  
 (E) Line 9a x Line 10  
 (F) Line 9b x Line 11

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** Big Bend Unit 3 Flue Gas Desulfurization Integration

**Project Description:**

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

**Project Accomplishments:**

**Fiscal Expenditures:** The actual/estimated depreciation plus return for the period January 2020 through December 2020, is \$924,091 compared to the original projection of \$925,246.

The actual/estimated O&M costs for the period January 2020 through December 2020 are \$280,339 compared to the original projection of \$390,754. The variance is -28.3 percent and is due to Big Bend Unit 3 operating less than originally projected. As a result, less maintenance is required.

**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:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$906,095.

There are not any projected O&M costs for the period January 2021 through December 2021.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

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

**Project Description:**

The existing electrostatic precipitators were not designed for the range of fuels needed for compliance with the Clean Air Act Amendments (“CAA”). 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 CAA 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<sub>2</sub> is converted to SO<sub>3</sub>. 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 2020 through December 2020 is \$221,125 compared to the original projection of \$221,202.

There are not any actual/estimated O&M costs projected, nor are there any projected O&M costs in the original projection for the period January 2020 through December 2020.

**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:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$193,042.

There are not any O&M costs projected for the period of January 2021 through December 2021.



**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** Big Bend Unit 4 Continuous Emissions Monitors

**Project Description:**

Continuous emissions monitors (“CEMs”) were installed on the flue gas inlet and outlet of Big Bend Unit 4 to monitor compliance with the CAAA requirements. The monitors are capable of measuring, recording and electronically reporting SO<sub>2</sub>, NO<sub>x</sub> 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 2020 through December 2020 is \$47,462 compared to the original projection of \$47,504.

**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:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$45,598.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** Big Bend Unit 1 Classifier Replacement

**Project Description:**

The boiler modifications at Big Bend Unit 1 are part of Tampa Electric's NO<sub>x</sub> 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<sub>x</sub> levels.

**Project Accomplishments:**

**Fiscal Expenditures:** The actual/estimated depreciation plus return for the period January 2020 through December 2020 is \$73,018 compared to the original projection of \$73,061.

**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:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$69,201.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** Big Bend Unit 2 Classifier Replacement

**Project Description:**

The boiler modifications at Big Bend Unit 2 are part of Tampa Electric's NO<sub>x</sub> 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<sub>x</sub> levels.

**Project Accomplishments:**

**Fiscal Expenditures:** The actual/estimated depreciation plus return for the period January 2020 through December 2020 is \$53,081 compared to the original projection of \$53,118.

**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:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$50,482.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** Big Bend Units 1 & 2 FGD

**Project Description:**

The Big Bend Units 1 & 2 FGD system consists of equipment capable of removing SO<sub>2</sub> 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 was required by January 1, 2000. The CAAA impose SO<sub>2</sub> 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 2020 through December 2020 is \$5,648,115 compared to the original projection of \$5,653,336.

The actual/estimated O&M costs for the period January 2020 through December 2020 are \$138,950 compared to the original estimate of \$250,146, resulting in a variance of -44.5 percent. This variance is due to Big Bend Units 1 and 2 operating less than projected. As a result, less maintenance is required.

**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:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$5,440,931.

There are not any O&M costs projected for the period January 2021 through December 2021.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** Big Bend Section 114 Mercury Testing Platform

**Project Description:**

The Mercury Emissions Information Collection Effort is mandated by the EPA. The EPA asserts that Section 114 of the CAAA grants 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 2020 through December 2020, is \$8,161 compared to the original projection of \$8,169.

**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:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$7,958.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** Big Bend FGD Optimization and Utilization

**Project Description:**

In order to meet the requirements of the FDEP Consent Final Judgment and the EPA Consent Decree, Tampa Electric was required to optimize the SO<sub>2</sub> 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 2020 through December 2020 is \$1,536,807 compared to the original projection of \$1,538,736.

**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:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$1,507,233.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** Big Bend PM Minimization and Monitoring

**Project Description:**

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

**Project Accomplishments:**

**Fiscal Expenditures:** The actual/estimated depreciation plus return for the period January 2020 through December 2020 is \$1,726,237 compared to the original projection of \$1,728,246.

The actual/estimated O&M costs for the period January 2020 through December 2020 are \$301,141 compared to the original projection of \$398,500, resulting in a variance of -24.4 percent. This variance is due to Big Bend Units operating less than projected. As a result, less maintenance is required.

**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:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$1,684,675.

The estimated O&M costs for the period January 2021 through December 2021 are \$252,000.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** Big Bend NO<sub>x</sub> 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<sub>x</sub> emissions at Big Bend Station. By 2002, the Consent Decree required the company to achieve at least a 30 percent reduction beyond 1998 NO<sub>x</sub> emission levels for Big Bend Units 1 and 2 and at least a 15 percent reduction in NO<sub>x</sub> emissions from Big Bend Unit 3. Tampa Electric identified and completed projects that were the first steps to decrease NO<sub>x</sub> 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 2020 through December 2020 is \$490,945 compared to the original projection of \$491,669.

The actual/estimated O&M costs for the period January 2020 through December 2020 are \$6,006 compared to the original projection of \$12,000, resulting in a variance of -50.0 percent. The variance in expenditures associated with the Big Bend NO<sub>x</sub> Emissions Reduction project is due to planned outages for Units 3 and 4 that were not included in the estimate. This resulted in fewer hours of unit operation than originally estimated. Due to the reduced operation, less maintenance is needed.

**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:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$487,214.

The estimated O&M costs projected for the period January 2021 through December 2021 are \$2,028.



**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

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

**Project Description:**

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

The scope of work for this project included cleaning and inspecting the tank in accordance with API 653 specifications, coating the internal floor plus 30 inches up the tank wall, installing an AEI 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 2020 through December 2020 is \$68,615 compared to the original projection of \$68,637.

**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 has been retired.

**Projections:** The estimated depreciation plus return for the period January 2021 through December 2021 is projected to be \$63,896.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

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

**Project Description:**

The Big Bend Fuel Oil Tank No. 2 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 AEI 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 2020 through December 2020 is \$112,855 compared to the original projection of \$112,892.

**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 has been retired.

**Projections:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$105,098.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** SO<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub>) equal to the number of tons of SO<sub>2</sub> 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 2020 through December 2020 is (\$2,658) compared to the original projection of (\$2,664).

The actual/estimated O&M costs for the period January 2020 through December 2020 are (\$18) compared to the original projection of \$71. The variance is not material.

**Progress Summary:** SO<sub>2</sub> emission allowances are being used by Tampa Electric to meet compliance standards for Phase I of the CAAA.

**Project Projections:** The estimated return on average net working capital for the period January 2021 through December 2021 is (\$2,688).

The estimated O&M costs for the period January 2021 through December 2021 are \$15.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** National Pollutant Discharge Elimination System (“NPDES”) Annual Surveillance Fees

**Project Description:**

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

**Project Accomplishments:**

**Fiscal Expenditures:** The actual/estimated O&M costs for the period January 2020 through December 2020 is \$34,500 compared to the original projection of \$34,500.

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

**Projections:** The estimated O&M costs for the period January 2021 through December 2021 are \$23,500.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** Gannon Thermal Discharge Study

**Project Description:**

This project was a direct requirement from the FDEP in conjunction with the renewal of Tampa Electric's Industrial Wastewater Facility Permit under the provisions of Chapter 403, Florida Statutes, and applicable rules of the Florida Administrative Code, which constitute authorization for the company's Gannon Station facility to discharge to waters of the State under the NPDES. The FDEP permit is Permit No. FL0000809. Specifically, Tampa Electric was required to perform a 316(a) determination for Gannon Station to ensure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife within 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:** There are not any actual/estimated O&M costs projected, nor were there any in the original projection for the period January 2020 through December 2020.

**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 not any O&M costs projected for the period January 2021 through December 2021.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** Polk NO<sub>x</sub> Emissions Reduction

**Project Description:**

This project was designed to meet a lower NO<sub>x</sub> 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<sub>2</sub> 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 2020 through December 2020 is \$106,750 compared to the original projection of \$106,858.

There are not any actual/estimated O&M costs projected, nor were there any in the original projection for the period January 2020 through December 2020.

**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:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$103,428.

There are not any O&M costs projected for the period of January 2021 through December 2021.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** Bayside SCR Consumables

**Project Description:**

This project is necessary to achieve the NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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 costs for the period January 2020 through December 2020 are \$93,185 compared to the original projection of \$119,000. The variance is -21.7 percent. The variance is due to less consumables required than originally expected.

**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:** The estimated O&M costs for the period January 2021 through December 2021 are projected to be \$119,000.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** Big Bend Unit 4 Separated Overfire Air ("SOFA")

**Project Description:**

This project is necessary to assist in achieving the NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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 2020 through December 2020 is \$189,720 compared to the original projection of \$189,948.

There are not any actual/estimated O&M costs projected, nor were there any in the original projection for the period January 2020 through December 2020.

**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:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$185,486.

There are not any O&M costs projected for the period of January 2021 through December 2021.



**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**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<sub>x</sub> emissions at Big Bend Station on a per unit basis at prescribed times from 2018 through 2020. Thus, the installation of cost-effective SCR technology on the generating units was necessary to meet NO<sub>x</sub> emissions requirements. This project was a necessary precursor to an SCR system designed to reduce inlet NO<sub>x</sub> 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 2020 through December 2020 is \$129,410 compared to the original projection of \$129,539.

The actual/estimated O&M costs for this project for the period January 2020 through December 2020 are \$5,400 compared to the original projection of \$10,800. The variance is -50.0 percent and is due to Unit 1 running on natural gas rather than coal.

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

**Projections:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$125,229.

There are not any O&M costs projected for the period of January 2021 through December 2021.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**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<sub>x</sub> emissions at Big Bend Station on a per unit basis at prescribed times from 2020 through 2020. Thus, the installation of cost-effective SCR technology on the generating units was necessary to meet NO<sub>x</sub> emissions requirements. This project was a necessary precursor to an SCR system designed to reduce inlet NO<sub>x</sub> 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 2020 through December 2020 is \$123,724 compared to the original projection of \$123,858.

The actual/estimated O&M costs for this project for the period January 2020 through December 2020 are \$6,175 compared to the original projection of \$10,800. The variance is -42.8 percent and is due to less maintenance being required than previously estimated.

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

**Projections:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$120,162.

There are not any O&M costs projected for the period of January 2021 through December 2021.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**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<sub>x</sub> emissions at Big Bend Station on a per unit basis at prescribed times from 2020 through 2020. Thus, the installation of cost-effective SCR technology on the generating units was necessary to meet NO<sub>x</sub> emissions requirements. This project was a necessary precursor to an SCR system designed to reduce inlet NO<sub>x</sub> 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 2020 through December 2020 is \$222,214 compared to the original projection of \$222,468.

The actual/estimated O&M costs for the period January 2020 through December 2020 are \$6,815 compared to the original projection of \$12,000. The variance is -43.2 percent and is due to Big Bend Unit 3 burning natural gas rather than coal. As a result, less maintenance was required than originally estimated.

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

**Projections:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$216,730.

There are not any O&M costs projected for the period of January 2021 through December 2021.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**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 meet 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 costs for the period January 2020 through December 2020 are \$28,110 compared to the original projection of \$40,000, resulting in a variance of -29.7 percent. The variance is due to delayed final NPDES Permits for the Big Bend and Bayside Power Stations compared to the estimated timeline. The work will be performed once the permits are received.

**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.

**Projections:** The estimated O&M costs for the period January 2021 through December 2021 are \$45,000.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**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<sub>x</sub> emissions at Big Bend Station on a per unit basis at prescribed times. The installation of cost-effective SCR technology on the generating units was necessary to meet NO<sub>x</sub> emissions requirements.

**Project Accomplishments:**

**Fiscal Expenditures:** The actual/estimated depreciation plus return for the period January 2020 through December 2020 is \$7,398,711 compared to the original projection of \$7,406,274.

The actual/estimated O&M costs for the period January 2020 through December 2020 are \$87,529 compared to the original projection of \$164,668, resulting in a variance of -46.8 percent. This variance is due to fewer operating hours and use of natural gas rather than coal, resulting in lower expenditures for SCR consumables and maintenance than previously estimated.

**Progress Summary:** This project was approved by the Commission in Docket No. 20041376-EI, Order No. PSC-2005-0502-CO-EI, issued May 9, 2005. The project is complete and in service.

**Projections:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$7,165,809.

There are not any O&M costs projected for the period January 2021 through December 2021.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**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<sub>x</sub> emissions at Big Bend Station on a per unit basis at prescribed times. The installation of cost-effective SCR technology on the generating units was necessary to meet NO<sub>x</sub> emissions requirements.

**Project Accomplishments:**

**Fiscal Expenditures:** The actual/estimated depreciation plus return for the period January 2020 through December 2020 is \$8,118,899 compared to the original projection of \$8,127,778.

The actual/estimated O&M costs for the period January 2020 through December 2020 are \$252,179 compared to the original projection of \$329,616, resulting in a variance of -23.5 percent. This variance is due to Big Bend Unit 2 operating for fewer hours than originally projected. As a result, less maintenance is required.

**Progress Summary:** This project was approved by the Commission in Docket No. 20041376-EI, Order No. PSC-2005-0502-CO-EI, issued May 9, 2005. The project is complete and in service.

**Projections:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$7,893,828.

The estimated O&M costs for the period January 2021 through December 2021 are \$122,020.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**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<sub>x</sub> emissions at Big Bend Station on a per unit basis at prescribed times. The installation of cost-effective SCR technology on the generating units was necessary to meet NO<sub>x</sub> emissions requirements.

**Project Accomplishments:**

**Fiscal Expenditures:** The actual/estimated depreciation plus return for the period January 2020 through December 2020 is \$6,610,540 compared to the original projection of \$6,617,819.

The actual/estimated O&M costs for the period January 2020 through December 2020 are \$457,095 compared to the original projection of \$716,027, resulting in a variance of -36.2 percent. This variance is due to Big Bend Unit 3 operating for fewer hours than originally projected. As a result, less maintenance is required.

**Progress Summary:** This project was approved by the Commission in Docket No. 20041376-EI, Order No. PSC-2005-0502-CO-EI, issued May 9, 2005. The project is complete and in service.

**Projections:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$6,429,857.

The estimated O&M costs for the period January 2021 through December 2021 are \$524,097.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**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<sub>x</sub> emissions at Big Bend Station on a per unit basis at prescribed times. The installation of cost-effective SCR technology on the generating units was necessary to meet NO<sub>x</sub> emissions requirements.

**Project Accomplishments:**

**Fiscal Expenditures:** The actual/estimated depreciation plus return for the period January 2020 through December 2020 is \$5,300,112 compared to the original projection of \$5,306,154.

The actual/estimated O&M costs for the period January 2020 through December 2020 are \$727,138 compared to the original projection of \$968,634, resulting in a variance of -24.9 percent. This variance is due to Big Bend Unit 4 operating for fewer hours than originally projected. As a result, less maintenance is required.

**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:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$5,199,976.

The estimated O&M costs for the period January 2021 through December 2021 are \$1,077,230.



**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**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 costs for the period January 2020 through December 2020 are \$15,858 compared to the original projection of \$0. The variance is due to a site-wide groundwater evaluation recently requested by FDEP as a standard compliance activity. The evaluation was not included in the previous estimate.

**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:** The estimated O&M costs for the period of January 2021 through December 2021 are \$36,000.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**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 2020 through December 2020 is \$2,039,210 compared to the original projection of \$2,041,735.

**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:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$2,013,174.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**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 2020 through December 2020 is \$795,655 compared to the original projection of \$801,028.

The actual/estimated O&M costs for the period January 2020 through December 2020 are \$1,873 compared to the original projection of \$27,000, resulting in a variance of -93.1 percent. The variance is due to less contractor services costs required for MATS monitoring activity than originally projected.

**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:** The estimated depreciation plus return for the period January 2021 through December 2021 is projected to be \$783,036.

The estimated O&M costs for the period January 2021 through December 2021 are projected to be \$3,000.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**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 costs for the period January 2020 through December 2020 is \$93,149 compared to the original projection of \$93,150.

**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:** The estimated O&M costs for the period January 2021 through December 2021 are \$93,528.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**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 2020 through December 2020 is \$2,017,798 compared to the original projection of \$2,020,559.

The actual/estimated O&M costs for the period January 2020 through December 2020 are \$796,177 compared to the original projection of \$947,064, resulting in a variance of -15.9 percent. The variance is due to a reduction in coal generation, compared to the original projection, so the amount of gypsum storage processing is reduced.

**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:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$1,991,084.

The estimated O&M costs for the period January 2021 through December 2021 are \$1,177,899.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** Big Bend Coal Combustion Residuals (“CCR”) Rule - Phase I & II

**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 2020 through December 2020 for Phase I and Phase II is \$162,574 and \$108,456 compared to the original projections of \$185,453 and \$59,446, respectively. The variances are due to timing differences in the project schedules when compared to the original projections.

The actual/estimated O&M costs for the period January 2020 through December 2020 for Phase I and Phase II are \$6,381 and \$14,257,611, respectively, compared to the original projections of \$0 and \$4,916,092, resulting in variances of 100% and 190%, respectively. The variance for Phase II is due to timing differences in the project schedule when compared to the original projection. The variance for Phase I is due to costs associated with temporary groundwater monitoring wells that were not included in the previous estimate.

**Progress Summary:** Phase I was approved by the Commission in Docket No. 20150223-EI, Order No. PSC-2016-0068-PAA-EI, issued February 9, 2016. Phase II was approved by the Commission in Docket No. 20170168-EI, Order No. 2017-0483-PAA-EI, issued December 22, 2017.

**Projections:** Estimated depreciation plus return for the period January 2021 through December 2021 for Phase I and Phase II is \$362,933 and \$328,169, respectively.

There are not any O&M costs projected for the period January 2021 through December 2021.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Description:**

On November 3, 2015, the EPA published the ELG Rule with an effective date of January 4, 2016. The ELG Rule 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, 2020, and no later than December 31, 2023. Tampa Electric hired an engineering consulting firm to perform the Big Bend ELG Compliance Study, completed in 2018, that concluded with a determination of the most appropriate ELG compliance measures identified.

**Project Accomplishments:**

**Fiscal Expenditures:** The actual/estimated depreciation plus return for the period January 2020 through December 2020 for Big Bend ELG Compliance is \$79,304 compared to the original projection of \$145,834. The variance is due to timing differences in the project schedule when compared to the original projection. Project activities have occurred more slowly than originally projected due to permitting delays. FDEP issued its permit regarding the project on April 10, 2020. The project expenditures are still needed and will be incurred in the future.

The actual/estimated O&M costs for the period January 2020 through December 2020 for Big Bend ELG Compliance are \$515, compared to \$0 in the original projection. The variance is due to more sampling being required to refine wastewater treatment requirements for injectate than previously estimated.

**Progress Summary:** The Study program was approved by the Commission in Docket No. 20160027-EI, Order No. PSC-2016-0248-PAA-EI, issued June 28, 2016, and it is now complete. The Compliance Project was approved by the Commission in Docket No. 2018007-EI, Order No. PSC-2018-0594-FOF-EI, issued December 20, 2018.

**Projections:** The ELG Rule Compliance program estimated depreciation plus return for the period January 2021 through December 2021 is \$782,650.

The estimated O&M costs projected for the period of January 2021 through December 2021 are \$4,800.

**Tampa Electric Company**  
**Environmental Cost Recovery Clause**  
**January 2021 through December 2021**  
**Description and Progress Report for**  
**Environmental Compliance Activities and Projects**

**Project Title:** Big Bend Unit 1 Section 316(b) Impingement Mortality

**Project Description:**

In August 2014, the Environmental Protection Agency (“EPA”) published their final rule regarding Section 316(b) of the Clean Water Act. The rule became effective in October 2014. The rule establishes requirements for cooling water intake structures (“CWIS”) at existing facilities. Section 316(b) requires that the location, design, construction, and capacity of CWIS reflect the best technology available (“BTA”) for minimizing adverse environmental impacts. For this project, compliance activities include modifying the existing Big Bend Unit 1 CWIS to reduce impingement mortality of affected living organisms.

**Project Accomplishments:**

**Fiscal Expenditures:** The actual/estimated depreciation plus return for the period January 2020 through December 2020 is \$31,605, compared to the original projection of \$119,004. The variance is due to timing differences in the project schedule when compared to the original projection.

There are no actual/estimated O&M costs for the period January 2020 through December 2020, nor was there an original projection.

**Progress Summary:** This project was approved by the Commission in Docket No. 2018007-EI, Order No. PSC-2018-0594-FOF-EI, issued December 20, 2018.

**Projections:** The estimated depreciation plus return for the period January 2021 through December 2021 is \$452,502.

There are not any O&M costs projected for the period of January 2021 through December 2021.



**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Energy & Demand Allocation % By Rate Class  
**January 2021 to December 2021**

Rate Class	(1) Average 12 CP Load Factor at Meter (%)	(2) Projected Sales at Meter (MWh)	(3) Effective Sales at Secondary Level (MWh)	(4) Projected Avg 12 CP at Meter (MW)	(5) Demand Loss Expansion Factor	(6) Energy Loss Expansion Factor	(7) Projected Sales at Generation (MWh)	(8) Projected Avg 12 CP at Generation (MW)	(9) Percentage of MWh Sales at Generation (%)	(10) Percentage of 12 CP Demand at Generation (%)	(11) Allocation Factor (%)
RS	53.49%	9,684,803	9,684,803	2,067	1.08051	1.05263	10,194,472	2,233	49.67%	58.72%	58.02%
GS, CS	56.42%	902,049	902,049	182	1.08051	1.05261	949,504	197	4.63%	5.18%	5.14%
GSD, SBF	74.99%	7,904,382	7,890,117	1,203	1.07583	1.04913	8,292,733	1,295	40.41%	34.05%	34.54%
IS	145.94%	927,861	911,152	73	1.02893	1.01716	943,787	75	4.60%	1.97%	2.17%
LS1	578.30%	134,246	134,246	3	1.08051	1.05263	141,311	3	0.69%	0.08%	0.13%
<b>TOTAL *</b>		<b>19,553,341</b>	<b>19,522,367</b>	<b>3,528</b>			<b>20,521,807</b>	<b>3,803</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

- Notes:
- (1) Average 12 CP load factor based on 2021 Projected calendar data
  - (2) Projected MWh sales for the period January 2021 to December 2021
  - (3) Effective sales at secondary level for the period January 2021 to December 2021.
  - (4) Column 2 / (Column 1 x 8760)
  - (5) Based on 2021 projected demand losses.
  - (6) Based on 2021 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

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Energy & Demand Allocation % By Rate Class  
**January 2021 to December 2021**

Rate Class	(1) Percentage of MWh Sales at Generation (%)	(2) 12 CP & 1/13 Allocation Factor (%)	(3) Energy- Related Costs (\$)	(4) Demand- Related Costs (\$)	(5) Total Environmental Costs (\$)	(6) Projected Sales at Meter (MWh)	(7) Effective Sales at Secondary Level (MWh)	(8) Environmental Cost Recovery Factors (¢/kWh)
RS	49.67%	58.02%	24,752,472	1,305,330	26,057,802	9,684,803	9,684,803	0.269
GS, CS	4.63%	5.14%	2,307,307	115,639	2,422,946	902,049	902,049	0.269
GSD, SBF	40.41%	34.54%	20,137,858	777,079	20,914,937	7,904,382	7,890,117	
Secondary Primary Transmission								0.265 0.262 0.260
IS	4.60%	2.17%	2,292,357	48,821	2,341,178	927,861	911,152	
Secondary Primary Transmission								0.257 0.254 0.252
LS1	0.69%	0.13%	343,854	2,925	346,779	134,246	134,246	0.258
<b>TOTAL *</b>	<b>100.00%</b>	<b>100.00%</b>	<b>49,833,848</b>	<b>2,249,793</b>	<b>52,083,641</b>	<b>19,553,341</b>	<b>19,522,367</b>	<b>0.267</b>

\* 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)

**Tampa Electric Company**  
 Environmental Cost Recovery Clause (ECRC)  
 Calculation of the Projected Period Amount  
January 2021 to December 2021

Form 42 - 8P

**Calculation of Revenue Requirement Rate of Return**  
 (in Dollars)

	(1)	(2)	(3)	(4)
	Jurisdictional Rate Base 2021 Adj. FESR (\$000)	Ratio %	Cost Rate %	Weighted Cost Rate %
Long Term Debt	\$ 2,505,932	35.87%	4.33%	1.5517%
Short Term Debt	152,497	2.18%	2.50%	0.0546%
Preferred Stock	0	0.00%	0.00%	0.0000%
Customer Deposits	89,536	1.28%	2.43%	0.0311%
Common Equity	3,076,748	44.04%	10.25%	4.5140%
Accum. Deferred Inc. Taxes & Zero Cost ITC's	969,489	13.88%	0.00%	0.0000%
Deferred ITC - Weighted Cost	<u>192,214</u>	<u>2.75%</u>	7.46%	<u>0.2051%</u>
<b>Total</b>	<b>\$ <u>6,986,416</u></b>	<b><u>100.00%</u></b>		<b><u>6.36%</u></b>

**ITC split between Debt and Equity:**

Long Term Debt	\$ 2,505,932	Long Term Debt	46.00%
Equity - Preferred	0	Equity - Preferred	0.00%
Equity - Common	<u>3,076,748</u>	Equity - Common	<u>54.00%</u>
<b>Total</b>	<b>\$ <u>5,582,680</u></b>	<b>Total</b>	<b><u>100.00%</u></b>

**Deferred ITC - Weighted Cost:**

Debt = 0.2051% * 46.00%	0.0943%
Equity = 0.2051% * 54.00%	<u>0.1108%</u>
Weighted Cost	<u>0.2051%</u>

**Total Equity Cost Rate:**

Preferred Stock	0.0000%
Common Equity	4.5140%
Deferred ITC - Weighted Cost	<u>0.1108%</u>
	4.6248%
Times Tax Multiplier	1.32830
Total Equity Component	<u>6.1431%</u>

**Total Debt Cost Rate:**

Long Term Debt	1.5517%
Short Term Debt	0.0546%
Customer Deposits	0.0311%
Deferred ITC - Weighted Cost	<u>0.0943%</u>
Total Debt Component	<u>1.7317%</u>
	<u><u>7.8748%</u></u>

**Notes:**

Column (1) - Per Order No. PSC-2020-0165-PAA-EU, issued May 20, 2020, approving amended joint motion modifying WACC methodology.  
 Column (2) - Column (1) / Total Column (1)  
 Column (3) - Per Order No. PSC-2020-0165-PAA-EU, issued May 20, 2020, approving amended joint motion modifying WACC methodology.  
 Column (4) - Column (2) x Column (3)



**BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION**

**DOCKET NO. 20200007-EI**

**ENVIRONMENTAL COST RECOVERY FACTORS**

**PROJECTIONS**

**JANUARY 2021 THROUGH DECEMBER 2021**

**TESTIMONY  
OF  
BYRON T. BURROWS**

**FILED: AUGUST 28, 2020**

1                   **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

2                                   **PREPARED DIRECT TESTIMONY**

3   **OF**

4   **BYRON T. BURROWS**

5  
6   **Q.**   Please state your name, address, occupation, and  
7           employer.

8  
9   **A.**   My name is Byron T. Burrows. My business address is 702  
10           North Franklin Street, Tampa, Florida 33602. I am employed  
11           by Tampa Electric Company ("Tampa Electric" or "company")  
12           as Manager, Air Programs in the Environmental Services  
13           Department.

14  
15   **Q.**   Please provide a brief outline of your educational  
16           background and business experience.

17  
18   **A.**   I received a Bachelor of Science degree in Civil  
19           Engineering from the University of South Florida in 1995.  
20           I have been a Registered Professional Engineer in the  
21           state of Florida since 1999. Prior to joining Tampa  
22           Electric, I worked in environmental consulting for  
23           sixteen years. In January 2001, I joined TECO Power  
24           Services as Manager-Environmental with primary  
25           responsibility for all power plant environmental

1           permitting and I have primarily worked in the areas of  
2           environmental, health and safety. In 2005, I became  
3           Manager of Air Programs. My responsibilities include air  
4           permitting and compliance as well as the development and  
5           administration of the company's environmental policies  
6           and goals. I am also responsible for ensuring resources,  
7           procedures, and programs comply with applicable  
8           environmental requirements, and that rules and polices  
9           are in place, function properly, and are consistently  
10          applied throughout the company.

11  
12       **Q.**    What is the purpose of your testimony in this proceeding?

13  
14       **A.**    The purpose of my testimony is to demonstrate that the  
15          activities for which Tampa Electric seeks cost recovery  
16          through the Environmental Cost Recovery Clause ("ECRC")  
17          for the January 2021 through December 2021 projection  
18          period are activities related to programs previously  
19          approved by the Commission for recovery through the ECRC.

20  
21       **Q.**    Please provide an overview of the environmental  
22          compliance requirements that are the result of the Consent  
23          Final Judgment ("CFJ") entered into with the Florida  
24          Department of Environmental Protection ("FDEP") and the  
25          Consent Decree ("CD") lodged with the U.S. Environmental

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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<sub>2</sub>"), particulate matter ("PM") and nitrogen oxides ("NO<sub>x</sub>") 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 (0570039-128-AV). The projects that are now required under the operating permit are listed below.

- Big Bend PM Minimization Program
- Big Bend NO<sub>x</sub> 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?

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

5  
6 **Q.** Please describe the Big Bend PM Minimization and  
7 Monitoring program activities and provide the estimated  
8 capital and O&M expenditures for the period of January  
9 2021 through December 2021.

10  
11 **A.** The Big Bend PM Minimization and Monitoring Program was  
12 approved by the Commission in Docket No. 20001186-EI,  
13 Order No. PSC-2000-2104-PAA-EI, issued November 6, 2000.  
14 In the Order, the Commission found that the program met  
15 the requirements for recovery through the ECRC. Tampa  
16 Electric had previously identified various projects to  
17 improve precipitator performance and reduce PM emissions  
18 as required by the Orders. Tampa Electric does not  
19 anticipate any capital expenditures for this program  
20 during 2021; however, the O&M expenses associated with  
21 existing and recently installed Best Operating Practice  
22 ("BOP") and best available control technology ("BACT")  
23 equipment and continued implementation of the BOP  
24 procedures are expected to be \$252,000.

25



1     **Q.**    Please describe the Big Bend NO<sub>x</sub> Emission Reduction  
2            program activities and provide the estimated capital and  
3            O&M expenses for the period of January 2021 through  
4            December 2021.

5  
6     **A.**    The Big Bend NO<sub>x</sub> Emission Reduction program was approved  
7            by the Commission in Docket No. 20001186-EI, Order No.  
8            PSC-2000-2104-PAA-EI, issued November 6, 2000. In the  
9            Order, the Commission found that the program met the  
10           requirements for recovery through the ECRC. Tampa  
11           Electric does not anticipate any capital expenditures in  
12           2021; however, the company will perform maintenance on  
13           the previously approved and installed NO<sub>x</sub> reduction  
14           equipment. This activity is expected to result in  
15           approximately \$2,028 of O&M expenses during 2021.

16  
17    **Q.**    Please describe the Big Bend Units 1 through 3 Pre-SCR  
18            and the Big Bend Units 1 through 4 SCR projects and  
19            provide estimated capital and O&M expenditures for the  
20            period of January 2021 through December 2021.

21  
22    **A.**    In Docket No. 20040750-EI, Order No. PSC-2004-0986-PAA-  
23            EI, issued October 11, 2004, the Commission approved cost  
24            recovery of the Big Bend Units 1 through 3 Pre-SCR and  
25            the Big Bend Unit 4 SCR projects. The Big Bend Units 1

1 through 3 SCR projects were approved by the Commission in  
2 Docket No. 20041376-EI, Order No. PSC-2005-0502-PAA-EI,  
3 issued May 9, 2005. The purpose of the Pre-SCR  
4 technologies is to reduce inlet NO<sub>x</sub> concentrations to the  
5 SCR systems, thereby mitigating overall SCR capital and  
6 O&M expenses. Those Pre-SCR technologies include windbox  
7 modifications, secondary air controls, and coal/air flow  
8 controls. The SCR projects at Big Bend Unit 1 through 4  
9 encompass the design, procurement, installation, and  
10 annual O&M expenses associated with an SCR system for  
11 each unit. The SCRs for Big Bend Units 1 through 4 were  
12 placed in-service April 2010, September 2009, July 2008,  
13 and May 2007, respectively.

14  
15 For the period of January 2021 through December 2021,  
16 there are not any capital or O&M expenditures anticipated  
17 for the Big Bend Units 1 through 3 Pre-SCR projects. There  
18 are not any anticipated capital expenditures for Big Bend  
19 Units 1 through 3 SCRs. For the Big Bend Unit 4 SCR,  
20 capital expenditures of \$795,000, associated with  
21 expansion joint replacement, are expected to be incurred.  
22 There are no O&M expenses anticipated for Big Bend Unit  
23 1 SCR. The O&M expenses are projected to be \$122,020 for  
24 Big Bend Unit 2 SCR, \$524,097 for Big Bend Unit 3 SCR,  
25 and \$1,077,230 for Big Bend Unit 4 SCR. These expenses

1 are primarily associated with ammonia purchases and  
2 maintenance.

3  
4 **Q.** Please identify and describe the other Commission-  
5 approved programs, or those pending Commission approval,  
6 that you will discuss.

7  
8 **A.** The programs previously approved by the Commission that  
9 I will discuss include the following projects:

- 10 1) Big Bend Unit 3 Flue Gas Desulfurization ("FGD")  
11 Integration.
- 12 2) Big Bend Units 1 and 2 FGD
- 13 3) Gannon Thermal Discharge Study
- 14 4) Bayside SCR Consumables
- 15 5) Clean Water Act Section 316(b) Phase II Study
- 16 6) Big Bend FGD System Reliability
- 17 7) Arsenic Groundwater Standard
- 18 8) Mercury and Air Toxics Standards ("MATS")
- 19 9) Greenhouse Gas ("GHG") Reduction Program
- 20 10) Big Bend Gypsum Storage Facility
- 21 11) Coal Combustion Residuals ("CCR") Rule
- 22 12) Big Bend Unit 1 Section 316(b) Impingement Mortality
- 23 13) Big Bend Effluent Limitations Guidelines ("ELG")  
24 Rule Compliance

25

1 Q. Please describe the Big Bend Unit 3 FGD Integration and  
2 the Big Bend Units 1 and 2 FGD activities and provide the  
3 estimated capital and O&M expenditures for the period of  
4 January 2021 through December 2021.

5  
6 A. The Big Bend Unit 3 FGD Integration program was approved  
7 by the Commission in Docket No. 19960688-EI, Order No.  
8 PSC-1996-1048-FOF-EI, issued August 14, 1996. The Big  
9 Bend Units 1 and 2 FGD program was approved by the  
10 Commission in Docket No. 19980693-EI, Order No. PSC-1999-  
11 0075-FOF-EI, issued January 11, 1999. In these Orders,  
12 the Commission found that the programs met the  
13 requirements for recovery through the ECRC. The programs  
14 were implemented to meet the SO<sub>2</sub> emission requirements of  
15 the Phase I and II Clean Air Act Amendments ("CAAA") of  
16 1990.

17  
18 The company does not anticipate any capital or O&M  
19 expenditures during January 2021 through December 2021  
20 for the Big Bend Unit 3 FGD Integration project. There  
21 are not any anticipated capital or O&M expenditures for  
22 the Big Bend Units 1 & 2 FGD project during January 2021  
23 through December 2021.

24  
25 Q. Please describe the Gannon Thermal Discharge Study

1 program activities and provide the estimated O&M  
2 expenditures for the period of January 2021 through  
3 December 2021.

4  
5 **A.** The Gannon Thermal Discharge Study program was approved  
6 by the Commission in Docket No. 20010593-EI, Order No.  
7 PSC-2001-1847-PAA-EI, issued September 14, 2001. In that  
8 Order, the Commission found that the program met the  
9 requirements for recovery through the ECRC. For the period  
10 of January 2021 through December 2021, there are not any  
11 projected O&M expenditures for this program. In the intent  
12 to issue the permit renewal, dated August 9, 2013, FDEP  
13 indicated that the proposed NPDES permit authorizes a  
14 thermal variance under Section 316(a) of the Clean Water  
15 Act for the permit period. Bayside Power Station applied  
16 for renewal of the National Pollutant Discharge  
17 Elimination System ("NPDES") Permit in February 2018, and  
18 the permit is still pending. At this time, the company  
19 anticipates that an additional thermal study will not be  
20 required. If a thermal study is required, Tampa Electric  
21 will incur O&M expenses and will include them in the true-  
22 up filing.

23  
24 **Q.** Please describe the Bayside SCR Consumables program  
25 activities and provide the estimated O&M expenditures for

1 the period of January 2021 through December 2021.

2  
3 **A.** The Bayside SCR Consumables program was approved by the  
4 Commission in Docket No. 20021255-EI, Order No. PSC-2003-  
5 0469-PAA-EI, issued April 4, 2003. For the period of  
6 January 2021 through December 2021, Tampa Electric  
7 projects O&M expenses associated with the consumable  
8 goods, primarily anhydrous ammonia, to be approximately  
9 \$119,000.

10  
11 **Q.** Please describe the Clean Water Act Section 316(b) Phase  
12 II Study Program activities and provide the estimated O&M  
13 expenditures for the period of January 2021 through  
14 December 2021.

15  
16 **A.** The Clean Water Act Section 316(b) ("Section 316(b)") Phase  
17 II Study program was approved by the Commission in Docket  
18 No. 20041300-EI, Order No. PSC-2005-0164-PAA-EI, issued  
19 February 10, 2005. The final rule adopted under Section  
20 316(b), the Cooling Water Intake Structures ("CWIS") Rule,  
21 became effective October 14, 2014. The rule establishes  
22 requirements for CWIS at existing facilities. Section  
23 316(b) requires that the location, design, construction,  
24 and capacity of CWIS reflect the best technology available  
25 ("BTA") for minimizing adverse environmental impacts. Tampa

1 Electric is currently finalizing its compliance strategy  
2 for the CWIS Rule at Big Bend Station and is working with  
3 the regulating authority to determine the need and  
4 scheduling for biological, financial, and technical study  
5 elements necessary to comply with the rule. These elements  
6 will ultimately be used by the regulating authority to  
7 determine the necessity of cooling water system retrofits.

8  
9 At this time, CWIS Rule compliance alternatives for Bayside  
10 Power Station are also being evaluated. The biological,  
11 financial, and technical study elements have been  
12 identified for Bayside Power Station and submitted with the  
13 station's NPDES permit renewal application in February  
14 2018. Retrofits could include the installation of cooling  
15 towers or screening facilities.

16  
17 The estimated Clean Water Act Section 316(b) Phase II Study  
18 related O&M expenses for Big Bend Station and Bayside Power  
19 Station for the period January 2021 through December 2021  
20 are \$45,000.

21  
22 For Big Bend Unit 1, which will be repowered to a clean,  
23 natural gas-fired combined cycle unit, the permit will  
24 require installation of impingement mortality controls as  
25 part of the Big Bend Unit 1 Modernization. Therefore, in

1 Order No. PSC-2018-0594-FOF-EI, issued on December 20,  
2 2018, the Commission approved cost recovery for the Big  
3 Bend Unit 1 Section 316(b) Impingement Mortality project.

4  
5 The estimated O&M expense for NPDES Annual Surveillance  
6 Fees for Big Bend, Bayside, and Polk generating plants for  
7 the period January 2021 through December 2021 are \$23,500.

8  
9 **Q.** Are other plants expected to require retrofits to comply  
10 with Section 316(b)?

11  
12 **A.** As stated earlier, compliance alternatives for the Bayside  
13 Power Station are also being evaluated.

14  
15 **Q.** Please describe the Big Bend Unit 1 Section 316(b)  
16 Impingement Mortality project activities and provide the  
17 estimated capital and O&M expenditures for the period of  
18 January 2021 through December 2021.

19  
20 **A.** The Big Bend Unit 1 Section 316(b) Impingement Mortality  
21 project was approved by the Commission in Docket No.  
22 20180007-EI, Order No. PSC-2018-0594-FOF-EI, issued  
23 December 20, 2018. In that Order, the Commission found that  
24 the program met the requirements for recovery through the  
25 ECRC and granted Tampa Electric cost recovery for prudently



1 incurred costs. For the period of January 2021 through  
2 December 2021, Tampa Electric projects capital expenditures  
3 for the Big Bend Unit 1 Section 316(b) Impingement Mortality  
4 Project to be \$10,457,000. There are no O&M expenses  
5 anticipated during 2021.

6  
7 **Q.** Please describe the Big Bend FGD System Reliability  
8 program activities and provide the estimated capital  
9 expenditures for the period of January 2021 through  
10 December 2021.

11  
12 **A.** Tampa Electric's Big Bend FGD System Reliability program  
13 was approved by the Commission in Docket No. 20050958-EI,  
14 Order No. PSC-2006-0602-PAA-EI, issued July 10, 2006. The  
15 Commission granted cost recovery approval for prudent  
16 costs associated with this project. For the period of  
17 January 2021 through December 2021, there are no  
18 anticipated capital expenditures for this project.

19  
20 **Q.** Please describe the Arsenic Groundwater Standard program  
21 activities and provide the estimated O&M expenditures for  
22 the period of January 2021 through December 2021.

23  
24 **A.** The Arsenic Groundwater Standard program was approved by  
25 the Commission in Docket No. 20050683-EI, Order No. PSC-

1 2006-0138-PAA-EI, issued February 23, 2006. In that  
2 Order, the Commission found that the program met the  
3 requirements for recovery through the ECRC and granted  
4 Tampa Electric cost recovery for prudently incurred  
5 costs. This groundwater standard applies to Tampa  
6 Electric's Bayside, Big Bend, and Polk Power Stations. A  
7 detailed plan of study was submitted to the FDEP, and  
8 after reviewing the study, FDEP requested a site wide  
9 groundwater evaluation. Tampa Electric submitted the  
10 results of this evaluation in 2020 and a proposal for  
11 modification of the site groundwater monitoring network  
12 to evaluate ongoing compliance. The proposal is under  
13 review by FDEP. For the period of January 2021 through  
14 December 2021, the anticipated O&M expenses associated  
15 with the program are \$36,000.

16  
17 **Q.** Please describe the MATS program activities.

18  
19 **A.** The MATS program was approved by the Commission in Docket  
20 No. 20120302-EI, Order No. PSC-2013-0191-PAA-EI, issued  
21 May 6, 2013. In that Order, the Commission found that the  
22 program met the requirements for recovery through the ECRC  
23 and granted Tampa Electric approval for cost recovery of  
24 prudently incurred costs. Additionally, the Commission  
25 granted the subsumption of the previously approved CAMR

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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 2021 through December 2021.

**A.** For 2021, Tampa Electric does not anticipate capital

1 expenditures under the MATS program in 2021. O&M  
2 expenditures are projected to be approximately \$3,000 for  
3 testing requirements and equipment maintenance.  
4

5 **Q.** Please describe the GHG Reduction program activities and  
6 provide the estimated O&M expenditures for the period of  
7 January 2021 through December 2021.  
8

9 **A.** Tampa Electric's GHG Reduction program, which was  
10 approved by the Commission in Docket No. 20090508-EI,  
11 Order No. PSC-2010-0157-PAA-EI, issued March 22, 2010, is  
12 a result of the EPA's GHG Mandatory Reporting Rule  
13 requiring annual reporting of greenhouse gas emissions.  
14 Tampa Electric was required to report greenhouse gas  
15 emissions for the first time in 2011. Reporting for the  
16 EPA's GHG Mandatory Reporting Rule will continue in 2021.  
17 For 2021, this activity is projected to result in  
18 approximately \$93,528 of O&M expenditures.  
19

20 **Q.** Please describe the Big Bend Gypsum Storage Facility  
21 activities and provide the estimated capital and O&M  
22 expenditures for the period of January 2021 through  
23 December 2021.  
24

25 **A.** The Big Bend Gypsum Storage Facility program was approved

1 by the Commission in Docket No. 20110262-EI, Order No.  
2 PSC-2012-0493-PAA-EI, issued September 26, 2012. In that  
3 Order, the Commission found that the program meets the  
4 requirements for recovery through the ECRC. The project  
5 was placed in service in November 2014. For 2021, Tampa  
6 Electric does not anticipate any capital expenditures;  
7 however, the projected O&M expenses for this program  
8 during 2021 are \$1,177,899.

9  
10 **Q.** Please describe the company's EPA CCR Rule compliance  
11 activities and provide the estimated capital and O&M  
12 expenditures for the period of January 2021 through  
13 December 2021.

14  
15 **A.** On April 17, 2015, the EPA issued a final rule to regulate  
16 CCR as non-hazardous waste under Subtitle D of the  
17 Resource Conservation and Recovery Act ("RCRA"). The  
18 rule, which became effective on October 19, 2015, covers  
19 all operational CCR disposal facilities, as well as  
20 inactive impoundments which contain CCR and liquids. The  
21 Big Bend Unit 4 Economizer Ash Ponds, the East Coalfield  
22 Stormwater Pond (converted former slag fines pond), and  
23 the North Gypsum Stackout Area are regulated under the  
24 rule.

25

1 The initial phase of the company's CCR compliance was  
2 approved by the Commission in Docket No. 20150223-EI,  
3 Order No. PSC-2016-0068-PAA-EI, issued February 9, 2016.  
4 In that Order, the Commission found that the CCR Rule -  
5 Phase I program met the requirements for recovery through  
6 the ECRC. Incremental ongoing O&M expenses resulting from  
7 the groundwater monitoring program, berm inspections, and  
8 general maintenance of regulated units were approved  
9 under the Order. In order to determine the best option to  
10 remain in compliance with the new rule, the company  
11 evaluated whether to continue operation of the regulated  
12 CCR units or close them. Tampa Electric, for Phase II of  
13 the project, chose a combination of closure and retrofit  
14 projects to remain in compliance with the CCR Rule, as  
15 discussed later in this section.

16  
17 Two CCR retrofit projects were also approved for Tampa  
18 Electric's CCR Rule - Phase I program under Order No.  
19 PSC-2016-0068-PAA-EI. These included: 1) removal of  
20 remaining residual slag from the East Coalfield  
21 Stormwater Runoff Pond and lining the pond to continue  
22 operating it as part of the station's stormwater system;  
23 and 2) installing secondary stormwater containment  
24 facilities and lining drainage ditches for the North  
25 Gypsum Stackout Area to make it fully compliant with the

1 rule's requirements.

2  
3 Phase II of Tampa Electric's CCR Rule program was approved  
4 by the Commission in Docket No. 20170168-EI, Order No.  
5 2017-0483-PAA-EI, issued December 22, 2017. In that  
6 Order, the Commission found that the Phase II program met  
7 the requirements for recovery through the ECRC. Expenses  
8 for the Economizer Ash Pond System Closure project, which  
9 includes removal and offsite disposal of all CCR and  
10 restoration of the area to original grade, were approved  
11 by the Commission's Order.

12  
13 The Economizer Ash Pond System Closure began in the fourth  
14 quarter of 2018 with initial dewatering and removal of  
15 CCR for disposal. Due to the large amount of CCR in the  
16 Economizer Ash Ponds which will need to be dewatered and  
17 shipped to the landfill, this project is expected to  
18 continue through 2021. The East Coalfield Stormwater  
19 Runoff Pond (slag pond) closure and retrofit were  
20 originally scheduled to be completed in 2019 but were  
21 delayed due to unusually high rainfall amounts throughout  
22 the year. The project has now commenced and is scheduled  
23 to be completed in early 2021. The North Gypsum Stackout  
24 Area Drainage Improvements Project was also delayed, but  
25 is now underway, with completion also expected in 2021.

1 Tampa Electric expects to incur \$1,025,000 and \$471,368  
2 in 2021 capital expenditures for CCR Rule - Phase I and  
3 Phase II projects, respectively. The company does not  
4 expect to incur O&M expenses for the CCR Rule - Phase I  
5 or Phase II programs in 2021.

6  
7 **Q.** Please describe Tampa Electric's ELG Rule activities,  
8 both study and compliance related, and provide the  
9 estimated capital and O&M expenditures for the period of  
10 January 2021 through December 2021.

11  
12 **A.** On November 3, 2015, the EPA published the final Steam  
13 Electric Power Generating ELG Rule, with an effective date  
14 of January 4, 2016. The ELG establish limits for  
15 wastewater discharges from FGD processes, fly ash, and  
16 bottom ash transport water, leachate from ponds and  
17 landfills containing CCR, gasification processes, and  
18 flue gas mercury controls. Big Bend Station's FGD system  
19 is affected by this rule. The blow-downstream from the  
20 FGD system is currently sent to a physical chemical  
21 treatment system to remove solids, some metals, and  
22 ammonia and adjust pH prior to discharge to Tampa Bay via  
23 the once through condenser cooling system water. This  
24 treatment system will need to be modified or replaced to  
25 achieve compliance with the new EPA regulations. The rule



1 requires compliance after November 1, 2018, but no later  
2 than December 31, 2023. EPA issued a temporary stay of  
3 these compliance deadlines beginning April 25, 2017 for  
4 certain waste streams, including FGD wastewater.

5  
6 The Big Bend ELG Study Program ("Study") was approved by  
7 the Commission in Docket No. 20160027-EI, Order No. PSC-  
8 2016-0248-PAA-EI, issued June 28, 2016, and confirmed in  
9 Consummating Order No. PSC-2016-0290-CO-EI issued July 25,  
10 2016 in the same docket.

11  
12 The Study, which was completed in 2018, identified viable  
13 technologies to treat the Tampa Electric Big Bend Station  
14 combined effluent streams in order to bring the streams  
15 into compliance with the more stringent requirements under  
16 the ELG Rule and resulted in the selection of the deep well  
17 injection solution.

18  
19 The Big Bend ELG Compliance project was approved by the  
20 Commission in Docket No. 20180007-EI, Order No. PSC-2018-  
21 0594-FOF-EI, issued December 20, 2018. In that Order, the  
22 Commission found that the program met the requirements for  
23 recovery through the ECRC and granted Tampa Electric cost  
24 recovery for prudently incurred costs.

25 On June 6, 2017, the EPA issued proposed rulemaking to

1           postpone these deadlines until it has completed  
2           reconsideration of the 2015 rule. On August 11, 2017, EPA  
3           issued a letter to the Utility Water Act Group ("UWAG")  
4           and the U.S. Small Business Association regarding  
5           petitions received by the EPA requesting reconsideration  
6           of the rule. In this letter, EPA stated that it would be  
7           appropriate to conduct rulemaking to "potentially revise"  
8           the limitations for bottom ash transport water and FGD  
9           wastewater. The compliance deadlines for these waste  
10          streams were revised to be as soon as possible after  
11          November 1, 2021, but no later than December 31, 2023.  
12          Tampa Electric expects that the selected compliance  
13          option will continue to be required as the best option  
14          for customers even if some changes are made to the rule.  
15          For the year January 2021 through December 2021, Tampa  
16          Electric projects capital expenditures to be \$12,817,041.  
17          The company projects \$4,800 in O&M expenditures for this  
18          project for the period.

19  
20       **Q.** Please summarize your testimony.

21  
22       **A.** The settlement agreements Tampa Electric had with FDEP  
23       and EPA required significant reductions in emissions from  
24       Big Bend and Gannon Power Stations. These settlement  
25       agreements have been terminated due to the company having

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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 (0570039-128-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 2021. Additionally, my testimony identified other projects that are required for Tampa Electric to meet environmental requirements, and I provided the associated 2021 activities and projected expenditures.

**Q.** Does this conclude your direct testimony?

**A.** Yes, it does.