FILED AUG 30, 2013 DOCUMENT NO. 05158-13 FPSC - COMMISSION CLERK

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 30, 2013

HAND DELIVERED

Ms. Ann Cole, Director Division of Commission Clerk Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Re:

Environmental Cost Recovery Clause

FPSC Docket No. 130007-EI

Dear Ms. Cole:

Enclosed for filing in the above docket, on behalf of Tampa Electric Company, are the original and fifteen (15) copies of each of the following:

- 1. Petition of Tampa Electric Company.
- 2. Prepared Direct Testimony and Exhibit (HTB-3) of Howard T. Bryant.
- 3. Prepared Direct Testimony of Paul L. Carpinone.

Please acknowledge receipt and filing of the above by stamping the duplicate copy of this letter and returning same to this writer.

Thank you for your assistance in connection with this matter.

Sincere

ry Wahlen

COM 5
AFD 2
APA 2
ECQ 3
ENG 3
GCL
IDM
TEL JIW/pp
CLK | Enclosures

CT.RP

cc: All Parties of Record (w/encls.)

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 U. S. Mail or hand delivery (*) on this 40 day of August 2013 to the following:

Mr. Charles W. Murphy*
Senior Attorney
Office of the General Counsel
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Ms. Patricia Christensen Associate Public Counsel Office of Public Counsel 111 West Madison Street – Room 812 Tallahassee, FL 32399-1400

Mr. Jon C. Moyle, Jr. Moyle Law Firm 118 N. Gadsden Street Tallahassee, FL 32301

Mr. John T. Butler Assistant General Counsel - Regulatory Florida Power & Light Company 700 Universe Boulevard (LAW/JB) Juno Beach, FL 33408-0420

Mr. Kenneth Hoffman Vice President, Regulatory Relations Florida Power & Light Company 215 South Monroe Street, Suite 810 Tallahassee, FL 32301-1858

Samuel Miller, Capt., USAF USAF/AFLOA/JACL/ULFSC 139 Barnes Drive, Suite 1 Tyndall AFB, FL 32403-5319 Mr. John T. Burnett Ms. Dianne M. Triplett Duke Energy Florida, Inc. Post Office Box 14042 St. Petersburg, FL 33733

Mr. Paul Lewis, Jr.
Duke Energy Florida, Inc.
106 East College Avenue, Suite 800
Tallahassee, FL 32301-7740

Mr. Gary V. Perko Hopping Green & Sams, P.A. Post Office Box 6526 Tallahassee, FL 32314

Mr. Jeffrey A. Stone Mr. Russell A. Badders Mr. Steven R. Griffin Beggs and Lane Post Office Box 12950 Pensacola, FL 32591-2950

Mr. Robert L. McGee, Jr. Regulatory and Pricing Manager Gulf Power Company One Energy Place Pensacola, FL 32520-0780

Mr. James W. Brew Mr. F. Alvin Taylor Brickfield, Burchette, Ritts & Stone, P.C. 1025 Thomas Jefferson Street, NW Eighth Floor, West Tower Washington, D.C. 20007-5201

ATTORIN

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental Cost)	DOCKET NO. 130007-EI
Recovery Clause.)	
)	FILED: August 30, 2013

PETITION OF TAMPA ELECTRIC COMPANY

Tampa Electric Company ("Tampa Electric" or "the company"), hereby petitions the Commission for approval of the company's environmental cost recovery true-up and the cost recovery factor proposed for use during the period January 2014 through December 2014, and in support thereof, says:

Environmental Cost Recovery

- 1. Tampa Electric had a final true-up amount for the January 2012 through December 2012 period of an under-recovery amount of \$3,702,886. [See Exhibit No. ____ (HTB-1), Document No. 1 (Schedule 42-1A).]
- 2. Tampa Electric projects an estimated/actual true-up amount for the January 2013 through December 2013 period, which is based on actual data for the period January 1, 2013 through June 30, 2013 and revised estimates for the period July 1, 2013 through December 31, 2013, to be an over-recovery of \$1,243,352. [See Exhibit No. ____ (HTB-2), Document No. 1 (Schedule 42-1E), from the filing dated August 2, 2013.]
- 3. The company's projected environmental cost recovery for the period January 1, 2014 through December 31, 2014 total is \$90,936,329 when adjusted for taxes and, when spread over projected kilowatt hour sales for the period January 1, 2014 through December 31, 2014, produces an average environmental cost recovery factor for the new period of 0.496 cents per KWH

after application of the factors which adjust for variations in line losses. [See Exhibit No. _____ (HTB-3), Document No. 7 (Schedule 42-7P).

4. The accompanying Prepared Direct Testimony and Exhibits of Paul L. Carpinone

and Howard T. Bryant 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

Howard T. Bryant, the environmental compliance costs sought to be approved for cost recovery

proposed in this petition are consistent with the provisions of Section 366.8255, Florida Statutes,

and with prior rulings by the Commission with respect to environmental compliance cost recovery

for Tampa Electric and other investor-owned utilities.

WHEREFORE, Tampa Electric Company requests this Commission's approval of the

company's prior period environmental cost recovery true-up calculations and projected

environmental cost recovery charges to be collected during the period January 1, 2014 through

December 31, 2014.

DATED this 30th day of August 2013.

Respectfully submitted,

JAMES D. BEASLEY

J. JEFFRY WAHLEN

Ausley & McMullen

Post Office Box 391

Tallahassee, FL 32302

(850) 224-9115

ATTORNEYS FOR TAMPA ELECTRIC COMPANY

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Petition, filed on behalf of Tampa Electric Company, has been furnished by U. S. Mail or hand delivery (*) on this 30th day of August 2013 to the following:

Mr. Charles W. Murphy*
Senior Attorney
Office of the General Counsel
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Ms. Patricia Christensen Associate Public Counsel Office of Public Counsel 111 West Madison Street – Room 812 Tallahassee, FL 32399-1400

Mr. Jon C. Moyle, Jr. Moyle Law Firm, PA 118 N. Gadsden Street Tallahassee, FL 32301

Mr. John T. Butler Managing Attorney - Regulatory Florida Power & Light Company 700 Universe Boulevard Juno Beach, FL 33408-0420

Mr. Kenneth Hoffman Florida Power & Light Company 215 South Monroe Street, Suite 810 Tallahassee, FL 32301-1859

Mr. Gary V. Perko Hopping Green & Sams, P.A. Post Office Box 6526 Tallahassee, FL 32314

Samuel Miller, Capt., USAF USAF/AFLOA/JACL/ULFSC 139 Barnes Drive, Suite 1 Tyndall AFB, FL 32403-5319 Mr. John T. Burnett Ms. Dianne Triplett Duke Energy Florida, Inc. Post Office Box 14042 St. Petersburg, FL 33733-4042

Mr. Paul Lewis, Jr.
Duke Energy Florida, Inc.
106 East College Avenue, Suite 800
Tallahassee, FL 32301-7740

Mr. Robert L. McGee, Jr. Gulf Power Company One Energy Place Pensacola, FL 32520

Mr. Jeffrey A. Stone Mr. Russell A. Badders Mr. Steven R. Griffin Beggs and Lane Post Office Box 12950 Pensacola, FL 32591-2950

Mr. James W. Brew Mr. F. Alvin Taylor Brickfield, Burchette, Ritts & Stone, P.C. 1025 Thomas Jefferson Street, NW Eighth Floor, West Tower Washington, D.C. 20007-5201

ATTORNEY



BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 130007-EI

ENVIRONMENTAL COST RECOVERY FACTORS

PROJECTIONS

JANUARY 2014 THROUGH DECEMBER 2014

TESTIMONY AND EXHIBIT

OF

HOWARD T. BRYANT

FILED: AUGUST 30, 2013

BEFORE THE PUBLIC SERVICE COMMISSION 1 PREPARED DIRECT TESTIMONY 2 OF 3 HOWARD T. BRYANT 4 5 6 Q. Please state your name, address, occupation and employer. 7 My name is Howard T. Bryant. My business address is 702 A. 8 9 North Franklin Street, Tampa, Florida 33602. 10 employed by Tampa Electric Company ("Tampa Electric" or 11 "company") as Manager, Rates in the Regulatory Affairs Department. 12 13 Q. Please provide a brief outline of your educational 14 15 background and business experience. 16 I graduated from the University of Florida in June 1973 17 Bachelor of Science 18 degree in Business 19 Administration. I have been employed at Tampa Electric 20 since 1981. My work has included various positions in Customer Service, Energy Conservation Services, Demand 21 Side Management ("DSM") Planning, Energy Management and 22 23 Forecasting, and Regulatory Affairs. In my current position I 24 am responsible for the company's Energy Cost 25 Conservation Recovery ("ECCR") clause, the

Environmental Cost Recovery Clause ("ECRC"), and retail rate design.

3

4

5

1

2

Q. Have you previously testified before the Florida Public Service Commission ("Commission")?

6

7

8

9

A. Yes. I have testified before this Commission on conservation and load management activities, DSM goals setting and DSM plan approval dockets, and other ECCR dockets since 1993, and ECRC activities since 2001.

11

10

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

13

14

15

16

17

18

19

20

21

22

23

12

The purpose of my testimony is to present, for Commission A. and approval, the calculation of the revenue review requirements and the projected ECRC factors for the period of January 2014 through December 2014. The projected ECRC factors have been calculated based on the current allocation methodology as well as the allocation methodology proposed by Tama Electric in Docket No. 130040-EI. In support of the projected ECRC factors, my identifies the capital testimony and operating maintenance ("O&M") costs associated with environmental compliance activities for the year 2014.

Q. Have you prepared an exhibit that shows the determination of recoverable environmental costs for the period of January 2014 through December 2014?

A. Yes. Exhibit No. ___ (HTB-3), containing nine documents, was prepared under my direction and supervision.

Document Nos. 1 through 8 contain Forms 42-1P through 42-8P, which show the calculation and summary of O&M and capital expenditures that support the development of the environmental cost recovery factors for 2014 using the current 12 coincident peak ("CP") and 25 percent average demand ("AD") basis. Document No. 9, consisting of two pages, supports the proposed ECRC factors allocated on a 12CP and 50 percent AD basis, as proposed in Docket No. 130040-EI.

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

A. Yes. The ECRC factors, prepared under my direction and supervision, are provided in Exhibit No. ____ (HTB-3), Document No. 7, on Form 42-7P. These annualized factors will apply for the period January through December 2014.

Q. What has Tampa Electric calculated as the net true-up to be applied in the period January 2014 through December 2014?

A. The net true-up applicable for this period is an underrecovery of \$2,459,534. This consists of the final trueup under-recovery of \$3,702,886 for the period of January
2012 through December 2012 and an estimated true-up overrecovery of \$1,243,352 for the current period of January
2013 through December 2013. The detailed calculation
supporting the estimated net true-up was provided on
Forms 42-1E through 42-9E of Exhibit No. ____ (HTB-2)
filed with the Commission on August 1, 2013.

Q. What were the major contributing factors that created the net under-recovery to be applied to the company's ECRC rates for the period January 2014 through December 2014?

A. There were two major contributing factors that created the net under-recovery. First, the increased O&M expense associated with the management of the gypsum production at Big Bend Station. Second, ECRC revenues were less than expected.

Q. Will Tampa Electric include any new environmental

1		compliance projects for ECRC cost recovery for the period
2		from January 2014 through December 2014?
3		
4	A.	No, Tampa Electric is not including any new environmental
5		compliance projects for ECRC cost recovery during 2014.
6		
7	Q.	What are the existing capital projects included in the
8		calculation of the ECRC factors for 2014?
9		
10	A.	Tampa Electric proposes to include for ECRC recovery the
11		25 previously approved capital projects and their
12		projected costs in the calculation of the ECRC factors
13		for 2014. These projects are:
14		
15		1) Big Bend Unit 3 Flue Gas Desulfurization ("FGD")
16		Integration
17		2) Big Bend Units 1 and 2 Flue Gas Conditioning
18		3) Big Bend Unit 4 Continuous Emissions Monitors
19		4) Big Bend Fuel Oil Tank 1 Upgrade
20		5) Big Bend Fuel Oil Tank 2 Upgrade
21		6) Big Bend Unit 1 Classifier Replacement
22		7) Big Bend Unit 2 Classifier Replacement
23		8) Big Bend Section 114 Mercury Testing Platform
24		9) Big Bend Units 1 and 2 FGD
25		10) Big Bend FGD Optimization and Utilization

1		11) Big Bend NO_x Emissions Reduction
2		12) Big Bend Particulate Matter ("PM") Minimization and
3		Monitoring
4		13) Polk NO_x Emissions Reduction
5		14) Big Bend Unit 4 SOFA
6		15) Big Bend Unit 1 Pre-SCR
7		16) Big Bend Unit 2 Pre-SCR
8		17) Big Bend Unit 3 Pre-SCR
9		18) Big Bend Unit 1 SCR
10		19) Big Bend Unit 2 SCR
11		20) Big Bend Unit 3 SCR
12		21) Big Bend Unit 4 SCR
13		22) Big Bend FGD System Reliability
14		23) Clean Air Mercury Rule now known as Mercury Air
15		Toxics Standard ("MATS")
16		24) SO ₂ Emission Allowances
17		25) Big Bend New Gypsum Storage Facility
18		
19		Some of these projects are described in more detail in
20		the direct testimony of Tampa Electric Witness, Paul
21		Carpinone.
22		
23	Q.	Have you prepared schedules showing the calculation of
24		the recoverable capital project costs for 2014?

Form 42-3P contained in Exhibit No. Α. Yes. (HTB-3)1 2 summarizes the cost estimates projected for Form 42-4P, pages 1 through 26, provides the 3 calculations of the costs, which result in recoverable 4 jurisdictional capital costs of \$60,027,417. 5 6 7 What are the existing O&M projects included Q. in calculation of the ECRC factors for 2014? 8 Tampa Electric proposes to include for ECRC recovery the 10 23 previously approved O&M projects and their projected 11 costs in the calculation of the ECRC factors for 2014. 12 These projects are: 13 14 15 1) Big Bend Unit 3 FGD Integration 2) Big Bend Units 1 and 2 Flue Gas Conditioning 16 17 3) SO₂ Emissions Allowances 4) Big Bend Units 1 and 2 FGD 18 5) Big Bend PM Minimization and Monitoring 19 6) Big Bend NO_x Emissions Reduction 20 7) NPDES Annual Surveillance Fees 21 8) Gannon Thermal Discharge Study 22 9) Polk NO_x Emissions Reduction 23 10) Bayside SCR and Ammonia 24

11) Big Bend Unit 4 SOFA

1		12) Big Bend Unit 1 Pre-SCR
2		13) Big Bend Unit 2 Pre-SCR
3		14) Big Bend Unit 3 Pre-SCR
4		15) Clean Water Act Section 316(b) Phase II Study
5		16) Arsenic Groundwater Standard Program
6		17) Big Bend Unit 1 SCR
7	:	18) Big Bend Unit 2 SCR
8		19) Big Bend Unit 3 SCR
9		20) Big Bend Unit 4 SCR
10		21) Clean Air Mercury Rule now known as Mercury Air
11		Toxics Standard
12		22) Greenhouse Gas Reduction Program
L3		23) Big Bend New Gypsum Storage Facility
14		
15		Some of these projects are described in more detail in
۱6		the direct testimony of Tampa Electric Witness, Paul
L7		Carpinone.
L8		
L9	Q.	Have you prepared schedules showing the calculation of
20		the recoverable O&M project costs for 2014?
21		
22	A.	Yes. Form 42-2P contained in Exhibit No (HTB-3)
23		summarizes the recoverable jurisdictional O&M costs for
24		these projects which total \$28,383,951 for 2014.

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

1

2

3

4

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

- Yes. Project descriptions and progress reports, as well as the projected recoverable cost estimates, are provided in Form 42-5P, pages 1 through 31.
 - Q. What are the total projected jurisdictional costs for environmental compliance in the year 2014?
 - A. The total jurisdictional O&M and capital expenditures to be recovered through the ECRC are calculated on Form 42-1P. These expenditures total \$88,411,368.
 - Q. How were environmental cost recovery factors calculated?
 - A. The environmental cost recovery factors were calculated shown on Schedules 42-6P and 42-7P. The allocation factors were calculated by determining the percentage each rate class contributes to the monthly system peaks and then adjusted for losses for each rate class. The energy allocation factors were determined by calculating the percentage that each rate class contributes to total MWH sales and then adjusted for

losses	for	each	rate	cla	ass.	This	infor	mation	n wa	s b	ased
on app	lyin	g his	torica	al 1	rate	class	load	resea	rch	to	the
2014 p	roje	cted	forec	ast	of	system	m dem	nand a	ind	ene	rgy.
Form 4	2-7P	prese	nts t	he	calc	ulation	of t	he pr	opos	sed	ECRC
factors	s bv	rate (class								

Q. What are the ECRC billing factors by rate class based on a 12 CP and 25 percent AD allocation method for the period of January through December 2014 which Tampa Electric is seeking approval?

A. The computation of the billing factors by metering voltage level utilizing the 12 CP and 25 percent AD methodology is shown in Exhibit No. ___ (HTB-3) Document No. 7, Form 42-7P. In summary, the January through December 2014 proposed ECRC billing factors are as follows:

19	Rate Class	Factor by Voltage
20		Level(¢/kWh)
21	RS Secondary	0.498
22	GS, TS Secondary	0.498
23	GSD, SBF	
24	Secondary	0.496
25	Primary	0.491

1			Transmission		0.486
		T.C. CD.T	TIGHTOMIOSION		0.100
2		IS, SBI			
3			Secondary		0.487
4			Primary		0.482
5			Transmission		0.477
6		LS1			0.493
7		Average Fa	actor		0.496
8					
9	Q.	What are	the ECRC billing	factors by r	ate class based on
10		a 12 CP	and 50 percent	AD allocation	on method for the
11		period of	January through	gh December	2014 which Tampa
12		Electric i	is seeking approve	al?	
13					
14	A.	The compu	utation of the	billing fac	ctors by metering
15		voltage l	evel utilizing	the 12 CP a	and 50 percent AD
16		methodolog	gy is shown in E	xhibit No	_ (HTB-3) Document
17		No. 9, Pro	oposed Allocation	s and Factors	. In summary, the
18		January t	through December	2014 propo	sed ECRC billing
19		factors ar	re as follows:		
20					
21		Rate Class	<u>3</u>	Facto	or by Voltage
22				Le	vel(¢/kWh)
23		RS Seconda	ary		0.497
24		GS, TS Sec	condary		0.498
25		GSD, SBF,	IS, SBI		

1			
1		Secondary	0.495
2		Primary	0.490
3		Transmission	0.485
4		LS1	0.494
5		Average Factor	0.496
6			
7	Q.	When does Tampa Electric propose to be	gin applying these
8		environmental cost recovery factors?	
9			
10	A.	The environmental cost recovery factors	will be effective
11		concurrent with the first billing cycle	for January 2014.
12			
13	Q.	What capital structure, components an	nd cost rates did
14		Tampa Electric rely on to calcul	late the revenue
15		requirement rate of return for Janu	uary 2014 through
16		December 2014?	
17			
18	A.	Tampa Electric relied upon the weighte	ed average cost of
19		capital methodology approved by the C	ommission in Order
20		No. PSC-12-0425-PAA-EU, to calcula	ate the revenue
21		requirement rate of return found on Form	m 42-8P.
22			
23	Q.	Are the costs Tampa Electric is reque	sting for recovery
24		through the ECRC for the period Jan	uary 2014 through
25		December 2014 consistent with criteri	a established for

ECRC recovery in Order No. PSC-94-0044-FOF-EI?

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

1. Such costs were prudently incurred after April 13, 1993;

2. The activities are legally required to comply with a governmentally imposed environmental regulation enacted, became effective or whose effect was triggered after the company's last test year upon which rates are based; and,

3. Such costs are not recovered through some other cost recovery mechanism or through base rates.

Q. Please summarize your testimony.

A. My testimony supports the approval of a final average environmental billing factor credit of 0.496 cents per kWh. This includes the projected capital and 0&M revenue requirements of \$88,411,078 associated with a total of 31 environmental projects and a true-up under-recovery provision of \$2,459,534 that is primarily driven by the combination of 0&M expenditures being greater than anticipated while ECRC revenue was less than expected.

My testimony also explains that the projected environmental expenditures for 2014 are appropriate for recovery through the ECRC.

Q. Does this conclude your testimony?

A. Yes, it does.

INDEX

ENVIRONMENTAL COST RECOVERY COMMISSION FORMS

JANUARY 2014 THROUGH DECEMBER 2014

DOCUMENT NO.	TITLE	PAGE
1	Form 42-1P	16
2	Form 42-2P	17
3	Form 42-3P	18
4	Form 42-4P	19
5	Form 42-5P	44
6	Form 42-6P	75
7	Form 42-7P	76
8	Form 42-8P	77
9	Proposed Allocations and Factors	78

16

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

For the Projected Period January 2014 to December 2014

<u>Line</u>	Energy	Demand	Total
	(\$)	(\$)	(\$)
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) Total Assistational Revenue Requirements for the projected period (Lines 19, 14).	\$27,927,451	\$456,500	\$28,383,951
	59,907,278	120,139	60,027,417
 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 2013 to December 2013 (Form 42-2E, Line 5 + 6 + 10) 	87,834,729	576,639	88,411,368
	1,236,544	6,808	1,243,352
3. Final True-up for the period January 2012 to December 2012 (Form 42-1A, Line 3)	(3,687,186)	(15,700)	(3,702,886)
 Total Jurisdictional Amount to Be Recovered/(Refunded) in the projection period January 2014 to December 2014 (Line 1 - Line 2- Line 3) 	90,285,371	585,531	90,870,902
Total Projected Jurisdictional Amount Adjusted for Taxes (Line 4 x Revenue Tax Multiplier)	\$90,350,376	\$585,953	\$90,936,329

O&M Activities (in Dollars)

Line	e	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total	Method of Demand	Classification Energy
1	Description of O&M Activities															
	Big Bend Unit 3 Flue Gas Desulfurization Integration Big Bend Units 1 & 2 Flue Gas Conditioning SO ₂ Emissions Allowances	\$424,000 0 2,218	\$434,000 0 2,168	\$534,000 0 2,230	\$514,000 0 2,286	\$502,000 0 2,308	\$460,000 0 2,258	\$472,000 0 2,286	\$472,000 0 2,276	\$448,000 0 2,283	\$448,000 0 2,312	\$468,000 0 2,263	\$448,000 0 2,226	\$5,624,000 0 27,114		\$5,624,000 0 27,114
	 d. Big Bend Units 1 & 2 FGD e. Big Bend PM Minimization and Monitoring f. Big Bend NO_x Emissions Reduction q. NPDES Annual Surveillance Fees 	818,225 75,000 25,000 34,500	894,725 75,000 25,000	818,225 75,000 25,000	865,225 75,000 25,000	841,725 75,000 25,000	888,725 75,000 25,000	912,225 75,000 50,000	912,225 75,000 25,000	915,225 75,000 50,000	1,165,225 75,000 25,000	1,018,225 75,000 50,000	915,225 75,000 25,000	10,965,200 900,000 375,000 34,500	34,500	10,965,200 900,000 375,000
	h. Gannon Thermal Discharge Study i. Polk NO _x Reduction i. Beyside SCR and Ammonia	2,060 15,000	2,060 15,000	0 2,060	3,610 15,000	0 3,610	2,060 15,000	2,060 15,000	2,060 15,000	2,060 15,000	3,610 15,000	2,060 15,000	2,060 15,000	0 29,370 150,000	0	29,370 150,000
	k. Big Bend Unit 4 SOFA I. Big Bend Unit 1 Pre-SCR m. Big Bend Unit 2 Pre-SCR	0 0	0 0	0	0 0 0	0 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0		0 0
	n. Big Bend Unit 3 Pre-SCR o. Clean Water Act Section 316(b) Phase II Study p. Arsenic Groundweter Standard Program	0 0 0	0 0 0	0 0 292,000	0 0 0	0 0 0	0 0 80,000	0 0 0	0 0 0	0 0 30,000	0 0 0	0 0 0	0 0 20,000	0 0 422,000	0 422,000	0
	d. Big Bend 1 SCR r. Big Bend 2 SCR s. Big Bend 3 SCR t. Bio Bend 4 SCR	224,143 241,765 147,700 102,352	162,665 222,749 139,293 79,920	242,828 279,302 161,108 89,363	226,307 236,997 166,813 58,546	272,018 278,127 138,491 88,955	261,847 246,099 181,518 112,302	239,750 263,903 184,596 112,910	224,030 258,173 182,159 104,248	77,755 205,945 173,371 101,864	71,186 259,803 146,472 103,814	208,018 209,751 217,962 90,138	196,596 247,064 135,361 96,862	2,407,142 2,949,679 1,974,842 1,141,275		2,407,142 2,949,679 1,974,842 1,141,275
	u. Mecury Air Toxics Standards v. Greenhouse Gas Reduction Program w. Big Bend New Gypsum Storage Facility	36,000 90,000	11,000	11,000 0 0	31,000 24,097 0	11,750 0 0	11,000 0 162,694	31,000 0 167,835	11,000 0 186,569	11,000 0 133,544	31,000 0 134,638	11,750 0 133,962	11,000 0 151,990	218,500 114,097 1,051,232		218,500 114,097 1,051,232
2	2. Total of O&M Activities	2,237,964	2,063,580.00	2,532,116	2,243,881	2,238,984	2,523,503	2,528,565	2,449,740	2,241,046	2,481,059	2,502,129	2,341,384	28,383,951	\$456,500	\$27,927,451
4	Recoverable Costs Allocated to Energy Recoverable Costs Allocated to Demand	2,203,464 34,500	2,063,580	2,240,116 292,000	2,243,881	2,238,984	2,443,503 80,000	2,528,565	2,449,740	2,211,046 30,000	2,481,059	2,502,129	2,321,384 20,000	27,927,451 456,500		
6	Retail Energy Jurisdictional Factor Retail Demand Jurisdictional Factor Jurisdictional Energy Recoverable Costs (A)	1.0000000 1.0000000 2.203.464	1.000000 1.000000 2.063,580	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000 1.0000000 2.528.565	1.0000000 1.0000000 2.449,740	1.0000000 1.0000000 2.211.046	1.0000000 1.0000000 2.481,059	1.000000 1.000000 2.502.129	1.0000000 1.0000000 2.321,384	27,927,451		
8	Jurisdictional Energy Recoverable Costs (A) Jurisdictional Demand Recoverable Costs (B) Total Jurisdictional Recoverable Costs for O&M	34,500	2,063,580	2,240,116 292,000	2,243,881	2,238,984	2,443,503 80,000	2,528,565	2,449,740	30,000	2,481,059	2,502,129	20,000	456,500		
	Activities (Lines 7 + 8)	\$2,237,964	\$2,063,580	\$2,532,116	\$2,243,881	\$2,238,984	\$2,523,503	\$2,528,565	\$2,449,740	\$2,241,046	\$2,481,059	\$2,502,129	\$2,341,384	\$28,383,951		

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

Capital Investment Projects-Recoverable Costs

(in Dollars)

					End of												
	Baradara (A)		Projected	Projected	Projected	Projected	Period		Classification								
Line	Description (A)	-	January	February	March	April	May	June	July	August	September	October	November	December	Total	Demand	Energy
1.	a. Big Bend Unit 3 Flue Gas Desulfurization In	teorati 1	\$110.816	\$110,577	\$110,339	\$110,101	\$109,863	\$109,624	\$109,386	\$109,148	\$108,909	\$108,672	\$109,193	\$108,948	\$1,315,576		\$1,315,576
	 Big Bend Units 1 and 2 Flue Gas Condition 		29,622	29,486	29,350	29,215	29,079	28,945	28,809	28,673	28,538	28,402	28,267	28,131	346,517		346,517
	c. Big Bend Unit 4 Continuous Emissions Mor		5,953	5,934	5,914	5,895	5.875	5,856	5,837	5,817	5,798	5,779	5,780	5,739	70,157		70,157
	d. Big Bend Fuel Oil Tank #1 Upgrade	4	3,851	3,839	3,827	3,815	3,803	3,791	3,780	3.767	3,756	3,744	3,732	3,721	45,426	\$ 45,426	
	e. Big Bend Fuel Oil Tank # 2 Upgrade	5	6,333	6,314	6,294	6,275	6,255	6,236	6,217	6,197	6,177	6,158	6.138	6,119	74,713	74,713	
	f. Big Bend Unit 1 Classifier Replacement	6	9,451	9,414	9,377	9,341	9,304	9,267	9,229	9,193	9.156	9,119	9.083	9,046	110,980		110,980
	 g. Big Bend Unit 2 Classifier Replacement 	7	6,817	6,791	6,766	6,740	6,714	6,689	6,663	6,638	6,613	6,587	6,561	6,536	80,115		80,115
	 h. Big Bend Section 114 Mercury Testing Plat 	form 8	987	984	981	979	976	974	972	970	967	965	962	960	11,677		11,677
	 Big Bend Units 1 & 2 FGD 	9	670,091	670,664	668,901	666,782	664,843	662,870	661,336	659,511	657,894	655,750	653,607	651,463	7,943,512		7,943,512
	 Big Bend FGD Optimization and Utilization 	10	172,086	171,706	171,326	170,945	170,564	170,184	169,804	169,424	169,044	168,663	168,263	167,903	2,039,932		2,039,932
	 k. Big Bend NO_x Emissions Reduction 	11	56,767	56,682	56,596	56,510	56,425	56,339	56,254	56,188	56,082	55,997	55,912	55,826	675,558		675,558
	 Big Bend PM Minimization and Monitoring 	12	152,908	155,817	162,014	166,188	166,250	165,867	165,485	165,102	164,721	184,338	163,956	163,573	1,956,219		1,956,219
	 m. Polk NO_x Emissions Reduction 	13	13,118	13,081	13,044	13,006	12,969	12,932	12,895	12,858	12,821	12,784	12,747	12,710	154,965		154,965
	n. Big Bend Unit 4 SOFA	14	22,801	22,747	22,693	22,840	22,586	22,532	22,478	22,424	22,370	22,317	22,264	22,210	270,082		270.062
	o. Big Bend Unit 1 Pre-SCR	15	15,950	15,904	15,657	15,811	15,765	15,719	15,673	15,626	15,580	15,534	15,488	15,442	188,349		188,349
	 Big Bend Unit 2 Pre-SCR 	16	15,117	15,076	15,035	14,994	14,953	14,912	14,870	14,830	14,789	14,746	14,707	14,666	178,697		178,697
	 q. Big Bend Unit 3 Pre-SCR 	17	26,867	26,800	26,733	26,666	26,599	26,533	26,466	26,399	26,332	26,266	26,199	26,132	317,992		317,992
	r. Big Bend Unit 1 SCR	18	911,460	908,659	906,259	903,656	901,059	698,458	895,858	693,257	890,657	888,056	885,456	882,855	10,765,892		10,765,892
	s. Big Bend Unit 2 SCR	19	953,956	951,411	948,865	946,319	943,773	941,226	938,680	936,134	933,587	931,041	928,495	925,950	11,279,439		11,279,439
	t. Big Bend Unit 3 SCR	20	786,981	784,902	782,824	780,744	778,666	776,587	774,507	772,429	770,350	766,271	766,192	764,112	9,306,565		9,306,565
	u. Big Bend Unit 4 SCR	21	606,490	604,948	603,401	601,857	600,312	598,788	597,224	595,679	594,135	592,590	591,046	589,501	7,175,949		7,175,949
	v. Big Bend FGD System Reliability	22	237,072	236,641	236,211	235,781	235,351	234,920	234,490	234,060	233,630	233,200	232,770	232,340	2,816,466		2,816,466
	w. Mercury Air	23	55,010	64,673	77,917	89,485	94,959	110,935	111,265	111,165	111,010	110,854	110,657	110,459	1,158,369		1,158,369
	x. SO ₂ Emissions Allowances (B)	24	(307)	(307)	(306)	(306)	(305)	(304)	(304)	(303)	(303)	(302)	(302)	(300)	(3,649)		(3,649)
	 Big Bend New Gypsum Storage Facility 	25 _	0	0	. 0	0	85,750	235,290	237,407	236,516	238,557	238,015	237,473	236,931	1,747,939		1,747,939
2.	Total Investment Projects - Recoverable Co	sts	4,870,199	4,872,941	4,880,216	4,883,421	4,962,188	5,115,150	5,105,281	5,093,682	5,081,170	5,067,548	5,054,646	5,040,973	60,027,417	\$ 120,139	\$ 59,907,278
3.	Recoverable Costs Allocated to Energy		4.860.015	4.862.788	4,870,097	4,673,331	4,952,130	5,105,123	5,095,284	5,083,718	5.074.007	5,057,646	F 044 770	F 804 400	FR 007 070		FO 007 070
	Recoverable Costs Allocated to Demand		10,184	10,153	10,121	10,090	10,058	10,027	9,997	9,964	5,071,237 9,933	9,902	5,044,776 9,870	5,031,133 9,640	59,907,278 120,139	120,139	59,907,278
CO ⁴	1,000 totable costs / nocated to bentand		10,104	10,133	10,121	10,030	10,036	10,027	0,001	3,304	9,555	9,902	9,070	3,040	120,139	120,139	
5.	Retail Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000			
6.	Retail Demand Jurisdictional Factor		1.0000000	1.0000000	1,0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000			
													1.000000				
7.	Jurisdictional Energy Recoverable Costs (C)	4,860,015	4,862,788	4,870,097	4,873,331	4,952,130	5,105,123	5,095,264	5,083,718	5,071,237	5,057,646	5,044,776	5,031,133	59,907,278		
6.	Jurisdictional Demand Recoverable Costs	D)	10,184	10,153	10,121	10,090	10,058	10,027	9,997	9,964	9,933	9,902	9,670	9,840	120,139		
		-															
9.	Total Jurisdictional Recoverable Costs for																
	Investment Projects (Lines 7 + 8)	_	\$4,870,199	\$4,672,941	\$4,880,218	\$4,883,421	\$4,962,188	\$5,115,150	\$5,105,281	\$5,093,682	\$5,081,170	\$5,067,548	\$5,054,646	\$5,040,973	\$60,027,417		

Notes:

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



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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	295,484	0	0	\$295,484
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other - AFUDC (excl from CWIP)		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	\$13,614,353	\$13,614,353	\$13,614,353	\$13,614,353	\$13,614,353	\$13,614,353	\$13,614,353	\$13,614,353	\$13,614,353	\$13,614,353	\$13,909,837	\$13,909,837	\$13,909,837	
3.	Less: Accumulated Depreciation	(4,078,138)	(4,106,501)	(4,134,864)	(4,163,227)	(4,191,590)	(4,219,953)	(4,248,316)	(4,276,679)	(4,305,042)	(4,333,405)	(4,361,768)	(4,390,894)	(4,420,020)	
4.	CWIP - Non-Interest Bearing	295,484	295,484	295,484	295,484	295,484	295,484	295,484	295,484	295,484	295,484	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	\$9,831,699	9,803,336	9,774,973	9,746,610	9,718,247	9,689,884	9,661,521	9,633,158	9,604,795	9,576,432	9,548,069	9,518,943	9,489,817	
6.	Average Net Investment		9,817,517	9,789,154	9,760,791	9,732,428	9,704,065	9,675,702	9,647,339	9,618,976	9,590,613	9,562,250	9,533,506	9,504,380	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For 1	Taxes (B)	64,224	64,038	63,853	63,667	63,482	63,296	63,110	62,925	62,739	62,554	62,366	62,175	\$758,429
	 b. Debt Component Grossed Up For Ta 	exes (C)	18,229	18,176	18,123	18,071	18,018	17,965	17,913	17,860	17,807	17,755	17,701	17,647	215,265
8.	Investment Expenses														
0.	a. Depreciation (D)		28,363	28,363	28,363	28,363	28,363	28,363	28,363	28,363	28,363	28,363	29,126	29,126	341,882
	b. Amortization		20,000	20,000	20,000	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	Ō	Ō	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 (Li	ince 7 ± 8\	110,816	110,577	110,339	110,101	109,863	109,624	109,386	109,148	108,909	108,672	109,193	108,948	1,315,576
Э.	a. Recoverable Costs Allocated to Ener		110,816	110,577	110,339	110,101	109,863	109,624	109,386	109,148	108,909	108,672	109,193	108,948	1,315,576
	b. Recoverable Costs Allocated to Dem		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Cos	sts (E)	110,816	110,577	110,339	110,101	109,863	109,624	109,386	109,148	108,909	108,672	109,193	108,948	1,315,576
13.	Retail Demand-Related Recoverable Co		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Lines 12 + 13)	\$110,816	\$110,577	\$110,339	\$110,101	\$109,863	\$109,624	\$109,386	\$109,148	\$108,909	\$108,672	\$109,193	\$108,948	\$1,315,576

- Notes:

 (A) Applicable depreciable base for Big Bend; account 312.45 (\$13,614,353) and 315.45 (\$295,484)

 (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).

 (C) Line 6 x 2.2281% x 1/12.

 (D) Applicable depreciation rate is 2.5% and 3.1%

 (E) Line 9a x Line 10

 (E) Line 9b x Line 11

 - (F) Line 9b x Line 11

Form 42-4P Page 2 of 25

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount January 2014 to December 2014

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments a. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other		\$0 0 0	\$0											
2. 3. 4. 5.	Plant-in-Service/Depreciation Base (A) Less: Accumulated Depreciation CWIP - Non-Interest Bearing Net Investment (Lines 2 + 3 + 4)	\$5,017,734 (3,404,510) 0 \$1,613,224	\$5,017,734 (3,420,651) 0 1,597,083	\$5,017,734 (3,436,792) 0 1,580,942	\$5,017,734 (3,452,933) 0 1,564,801	\$5,017,734 (3,469,074) 0 1,548,660	\$5,017,734 (3,485,215) 0 1,532,519	\$5,017,734 (3,501,356) 0 1,516,378	\$5,017,734 (3,517,497) 0 1,500,237	\$5,017,734 (3,533,638) 0 1,484,096	\$5,017,734 (3,549,779) 0 1,467,955	\$5,017,734 (3,565,920) 0 1,451,814	\$5,017,734 (3,582,061) 0 1,435,673	\$5,017,734 (3,598,202) 0 1,419,532	
6.	Average Net Investment		1,605,154	1,589,013	1,572,872	1,558,731	1,540,590	1,524,449	1,508,308	1,492,167	1,476,026	1,459,885	1,443,744	1,427,603	
7.	Return on Average Net Investment a. Equity Component Grossed Up For T b. Debt Component Grossed Up For Ta		10,501 2,980	10,395 2,950	10,289 2,920	10,184 2,890	10,078 2,860	9,973 2,831	9,867 2,801	9,761 2,771	9,656 2,741	9,550 2,711	9,445 2,681	9,339 2,651	\$119,038 33,787
8.	Investment Expenses a. Depreciation (D) b. Amortization c. Dismantlement d. Property Taxes e. Other		16,141 0 0 0	16,141 0 0 0 0	16,141 0 0 0	193,692 0 0 0									
9.	Total System Recoverable Expenses (Li a. Recoverable Costs Allocated to Energib. Recoverable Costs Allocated to Dem	gy .	29,622 29,622 0	29,486 29,486 0	29,350 29,350 0	29,215 29,215 0	29,079 29,079 0	28,945 28,945 0	28,809 28,809 0	28,673 28,673 0	28,538 28,538 0	28,402 28,402 0	28,267 28,267 0	28,131 28,131 0	346,517 346,517 0
10. 11.	Energy Jurisdictional Factor Demand Jurisdictional Factor		1.0000000 1.0000000												
12. 13. 14.	Retail Energy-Related Recoverable Cos Retail Demand-Related Recoverable Co Total Jurisdictional Recoverable Costs (sts (F)	29,622 0 \$29,622	29,486 0 \$29,486	29,350 0 \$29,350	29,215 0 \$29,215	29,079 0 \$29,079	28,945 0 \$28,945	28,809 0 \$28,809	28,673 0 \$28,673	28,538 0 \$28,538	28,402 0 \$28,402	28,267 0 \$28,267	28,131 0 \$28,131	346,517 0 \$346,517

- Notes:

 (A) Applicable depreciable base for Big Bend; accounts 312.41 (\$2,676,217) and 312.42 (\$2,341,517)

 (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).

 (C) Line 6 x 2.2281% 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

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments a. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other		\$0 0 0	\$0											
2. 3. 4. 5.	Plant-in-Service/Depreciation Base (A) Less: Accumulated Depreciation CWIP - Non-Interest Bearing Net Investment (Lines 2 + 3 + 4)	\$866,211 (431,285) 0 \$434,926	\$866,211 (433,595) 0 432,616	\$866,211 (435,905) 0 430,306	\$866,211 (438,215) 0 427,996	\$866,211 (440,525) 0 425,686	\$866,211 (442,835) 0 423,376	\$866,211 (445,145) 0 421,066	\$866,211 (447,455) 0 418,756	\$866,211 (449,765) 0 416,446	\$866,211 (452,075) 0 414,136	\$866,211 (454,385) 0 411,826	\$866,211 (456,695) 0 409,516	\$866,211 (459,005) 0 407,206	
6.	Average Net Investment		433,771	431,461	429,151	426,841	424,531	422,221	419,911	417,601	415,291	412,981	410,671	408,361	
7.	Return on Average Net Investment a. Equity Component Grossed Up For Ta b. Debt Component Grossed Up For Tax		2,838 805	2,823 801	2,807 797	2,792 793	2,777 788	2,762 784	2,747 780	2,732 775	2,717 771	2,702 767	2,687 763	2,671 758	\$33,055 9,382
8.	Investment Expenses a. Depreciation (D) b. Amortization c. Dismantlement d. Property Taxes e. Other		2,310 0 0 0 0	2,310 0 0 0	2,310 0 0 0	2,310 0 0 0 0	2,310 0 0 0	2,310 0 0 0 0	2,310 0 0 0	2,310 0 0 0	2,310 0 0 0	2,310 0 0 0	2,310 0 0 0	2,310 0 0 0	27,720 0 0 0
9.	Total System Recoverable Expenses (Lin a. Recoverable Costs Allocated to Energ b. Recoverable Costs Allocated to Dema	У	5,953 5,953 0	5,934 5,934 0	5,914 5,914 0	5,895 5,895 0	5,875 5,875 0	5,856 5,856 0	5,837 5,837 0	5,817 5,817 0	5,798 5,798 0	5,779 5,779 0	5,760 5,760 0	5,739 5,739 0	70,157 70,157 0
10. 11.	Energy Jurisdictional Factor Demand Jurisdictional Factor		1.0000000 1.0000000												
12. 13. 14.	Retail Energy-Related Recoverable Costs Retail Demand-Related Recoverable Cost Total Jurisdictional Recoverable Costs (L	ts (F)	5,953 0 \$5,953	5,934 0 \$5,934	5,914 0 \$5,914	5,895 0 \$5,895	5,875 0 \$5,875	5,856 0 \$5,856	5,837 0 \$5,837	5,817 0 \$5,817	5,798 0 \$5,798	5,779 0 \$5,779	5,760 0 \$5,760	5,739 0 \$5,739	70,157 0 \$70,157

- (A) Applicable depreciable base for Big Bend; account 315.44
- (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).
- (C) Line 6 x 2.2281% 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 2014 to December 2014

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	 b. Clearings to Plant 		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	\$497,578	\$497,578	\$497,578	\$497,578	\$497,578	\$497,578	\$497,578	\$497,578	\$497,578	\$497,578	\$497,578	\$497,578	\$497,578	
3.	Less: Accumulated Depreciation	(206,272)	(207,682)	(209,092)	(210,502)	(211,912)	(213,322)	(214,732)	(216,142)	(217,552)	(218,962)	(220,372)	(221,782)	(223,192)	
4.	CWIP - Non-Interest Bearing	0	0	00	0	0	0	0	0	00	0	0	. 0	0	
5.	Net Investment (Lines 2 + 3 + 4)	\$291,306	289,896	288,486	287,076	285,666	284,256	282,846	281,436	280,026	278,616	277,206	275,796	274,386	
6.	Average Net Investment		290,601	289,191	287,781	286,371	284,961	283,551	282,141	280,731	279,321	277,911	276,501	275,091	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Ta		1,901	1,892	1,883	1,873	1,864	1,855	1,846	1,836	1,827	1,818	1,809	1,800	\$22,204
	b. Debt Component Grossed Up For Tax	œs (C)	540	537	534	532	529	526	524	521	519	516	513	511	6,302
8.	Investment Expenses														
	a. Depreciation (D)		1,410	1,410	1,410	1,410	1,410	1,410	1,410	1,410	1,410	1,410	1,410	1,410	16,920
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	. 0		0	00	0	0	0	0
9.	Total System Recoverable Expenses (Lin	nes 7 + 8)	3,851	3,839	3,827	3,815	3,803	3,791	3,780	3,767	3,756	3,744	3,732	3,721	45,426
	 a. Recoverable Costs Allocated to Energy 		0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Recoverable Costs Allocated to Dema	and	3,851	3,839	3,827	3,815	3,803	3,791	3,780	3,767	3,756	3,744	3,732	3,721	45,426
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Cost	s (E)	0	0	0	0	0	0	0	0	0	0	0	0	0
13.	Retail Demand-Related Recoverable Cos		3,851	3,839	3,827	3,815	3,803	3,791	3,780	3,767	3,756	3,744	3,732	3,721	45,426
14.	Total Jurisdictional Recoverable Costs (L	ines 12 + 13)	\$3,851	\$3,839	\$3,827	\$3,815	\$3,803	\$3,791	\$3,780	\$3,767	\$3,756	\$3,744	\$3,732	\$3,721	\$45,426

- (A) Applicable depreciable base for Big Bend; account 312.40
- (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).
- (C) Line 6 x 2.2281% x 1/12. (D) Applicable depreciation rate is 3.4% (E) Line 9a x Line 10
- (F) Line 9b x Line 11

Form 42-4P Page 5 of 25

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2014 to December 2014

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	 a. Expenditures/Additions 		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		U	0	0	U	U	U	U	U	0	U	U	· ·	
2.	Plant-in-Service/Depreciation Base (A)	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	
3.	Less: Accumulated Depreciation	(339,280)	(341,599)	(343,918)	(346,237)	(348,556)	(350,875)	(353,194)	(355,513)	(357,832)	(360,151)	(362,470)	(364,789)	(367,108)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	\$479,121	476,802	474,483	472,164	469,845	467,526	465,207	462,888	460,569	458,250	455,931	453,612	451,293	
6.	Average Net Investment		477,962	475,643	473,324	471,005	468,686	466,367	464,048	461,729	459,410	457,091	454,772	452,453	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxe	s (B)	3,127	3,112	3,096	3,081	3,066	3,051	3,036	3,021	3,005	2,990	2,975	2,960	\$36,520
	b. Debt Component Grossed Up For Taxes	(C)	887	883	879	875	870	866	862	857	853	849	844	840	10,365
8.	Investment Expenses														
0.	a. Depreciation (D)		2,319	2,319	2,319	2.319	2,319	2,319	2,319	2,319	2,319	2,319	2,319	2,319	27,828
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	00	0	0
9.	Total System Recoverable Expenses (Lines	7 + 8\	6.333	6,314	6,294	6,275	6,255	6,236	6,217	6,197	6,177	6,158	6,138	6,119	74,713
Э.	a. Recoverable Costs Allocated to Energy	7 . 0,	0,000	0,014	0	0,2.0	0,200	0	0	0	0	0	0	0	0
	b. Recoverable Costs Allocated to Demand		6,333	6,314	6,294	6,275	6,255	6,236	6,217	6,197	6,177	6,158	6,138	6,119	74,713
4.5			4 0000000	4 0000000	4.0000000	4.0000000	1 0000000	4.0000000	4.0000000	4.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1,0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.00000000	1.00000000	1.00000000	1,0000000	1.0000000	1.00000000	1.0000000	1.0000000	1.0000000	1.000000	
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		6,333	6,314	6,294	6,275	6,255	6,236	6,217	6,197	6,177	6,158	6,138	6,119	74,713
14.	Total Jurisdictional Recoverable Costs (Line	s 12 + 13)	\$6,333	\$6,314	\$6,294	\$6,275	\$6,255	\$6,236	\$6,217	\$6,197	\$6,177	\$6,158	\$6,138	\$6,119	\$74,713

- (A) Applicable depreciable base for Big Bend; account 312.40
- (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).
- (C) Line 6 x 2.2281% x 1/12.
 (D) Applicable depreciation rate is 3.4%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

Form 42-4P Page 6 of 25

Tampa Electric Company Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2014 to December 2014

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments a. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other		\$0 0 0	\$0											
2. 3. 4. 5.	Plant-in-Service/Depreciation Base (A) Less: Accumulated Depreciation CWIP - Non-Interest Bearing Net Investment (Lines 2 + 3 + 4)	\$1,316,257 (711,224) 0 \$605,033	\$1,316,257 (715,612) 0 600,645	\$1,316,257 (720,000) 0 596,257	\$1,316,257 (724,388) 0 591,869	\$1,316,257 (728,776) 0 587,481	\$1,316,257 (733,164) 0 583,093	\$1,316,257 (737,552) 0 578,705	\$1,316,257 (741,940) 0 574,317	\$1,316,257 (746,328) 0 569,929	\$1,316,257 (750,716) 0 565,541	\$1,316,257 (755,104) 0 561,153	\$1,316,257 (759,492) 0 556,765	\$1,316,257 (763,880) 0 552,377	
6.	Average Net Investment		602,839	598,451	594,063	589,675	585,287	580,899	576,511	572,123	567,735	563,347	558,959	554,571	
7.	Return on Average Net Investment a. Equity Component Grossed Up For T b. Debt Component Grossed Up For Ta		3,944 1,119	3,915 1,111	3,886 1,103	3,858 1,095	3,829 1,087	3,800 1,079	3,771 1,070	3,743 1,062	3,714 1,054	3,685 1,046	3,657 1,038	3,628 1,030	\$45,430 12,894
8.	Investment Expenses a. Depreciation (D) b. Amortization c. Dismantlement d. Property Taxes e. Other		4,388 0 0 0	4,388 0 0 0 0	4,388 0 0 0	4,388 0 0 0	4,388 0 0 0	4,388 0 0 0 0	4,388 0 0 0	4,388 0 0 0 0	4,388 0 0 0	4,388 0 0 0	4,388 0 0 0	4,388 0 0 0	52,656 0 0 0
9.	Total System Recoverable Expenses (Li a. Recoverable Costs Allocated to Energib. Recoverable Costs Allocated to Dem	gy	9,451 9,451 0	9,414 9,414 0	9,377 9,377 0	9,341 9,341 0	9,304 9,304 0	9,267 9,267 0	9,229 9,229 0	9,193 9,193 0	9,156 9,156 0	9,119 9,119 0	9,083 9,083 0	9,046 9,046 0	110,980 110,980 0
10. 11.	Energy Jurisdictional Factor Demand Jurisdictional Factor		1.0000000 1.0000000												
12. 13. 14.	Retail Energy-Related Recoverable Cos Retail Demand-Related Recoverable Co Total Jurisdictional Recoverable Costs (I	sts (F)	9,451 0 \$9,451	9,414 0 \$9,414	9,377 0 \$9,377	9,341 0 \$9,341	9,304 0 \$9,304	9,267 0 \$9,267	9,229 0 \$9,229	9,193 0 \$9,193	9,156 0 \$9,156	9,119 0 \$9,119	9,083 0 \$9,083	9,046 0 \$9,046	110,980 0 \$110,980

- (A) Applicable depreciable base for Big Bend; account 312.41
 (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).
- (C) Line 6 x 2.2281% x 1/12.
- (D) Applicable depreciation rate is 4.0%
 (E) Line 9a x Line 10
- (F) Line 9b x Line 11

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments a. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other		\$0 0 0	\$0 0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0 0	\$0						
2. 3. 4. 5.	Plant-in-Service/Depreciation Base (A) Less: Accumulated Depreciation CWIP - Non-Interest Bearing Net Investment (Lines 2 + 3 + 4)	\$984,794 (533,142) 0 \$451,652	\$984,794 (536,178) 0 448,616	\$984,794 (539,214) 0 445,580	\$984,794 (542,250) 0 442,544	\$984,794 (545,286) 0 439,508	\$984,794 (548,322) 0 436,472	\$984,794 (551,358) 0 433,436	\$984,794 (554,394) 0 430,400	\$984,794 (557,430) 0 427,364	\$984,794 (560,466) 0 424,328	\$984,794 (563,502) 0 421,292	\$984,794 (566,538) 0 418,256	\$984,794 (569,574) 0 415,220	
6.	Average Net Investment		450,134	447,098	444,062	441,026	437,990	434,954	431,918	428,882	425,846	422,810	419,774	416,738	
7.	Retum on Average Net Investment a. Equity Component Grossed Up For Tab b. Debt Component Grossed Up For Tab		2,945 836	2,925 830	2,905 825	2,885 819	2,865 813	2,845 808	2,825 802	2,806 796	2,786 791	2,766 785	2,746 779	2,726 774	\$34,025 9,658
8.	Investment Expenses a. Depreciation (D) b. Amortization c. Dismantlement d. Property Taxes e. Other		3,036 0 0 0	36,432 0 0 0											
9.	Total System Recoverable Expenses (Lir a. Recoverable Costs Allocated to Energ b. Recoverable Costs Allocated to Dema	ay .	6,817 6,817 0	6,791 6,791 0	6,766 6,766 0	6,740 6,740 0	6,714 6,714 0	6,689 6,689 0	6,663 6,663 0	6,638 6,638 0	6,613 6,613 0	6,587 6,587 0	6,561 6,561 0	6,536 6,536 0	80,115 80,115 0
10. 11.	Energy Jurisdictional Factor Demand Jurisdictional Factor		1.0000000 1.0000000												
12. 13. 14.	Retail Energy-Related Recoverable Cost Retail Demand-Related Recoverable Cost Total Jurisdictional Recoverable Costs (L	sts (F)	6,817 0 \$6,817	6,791 0 \$6,791	6,766 0 \$6,766	6,740 0 \$6,740	6,714 0 \$6,714	6,689 0 \$6,689	6,663 0 \$6,663	6,638 0 \$6,638	6,613 0 \$6,613	6,587 0 \$6,587	6,561 0 \$6,561	6,536 0 \$6,536	80,115 0 \$80,115

- (A) Applicable depreciable base for Big Bend; account 312.42
- (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).
- (C) Line 6 x 2.2281% x 1/12.
- (D) Applicable depreciation rate is 3.7%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

Form 42-4P Page 8 of 25

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments a. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other		\$0 0 0	\$0											
2. 3. 4. 5.	Plant-in-Service/Depreciation Base (A) Less: Accumulated Depreciation CWIP - Non-Interest Bearing Net Investment (Lines 2 + 3 + 4)	\$120,737 (37,891) 0 \$82,846	\$120,737 (38,183) 0 82,554	\$120,737 (38,475) 0 82,262	\$120,737 (38,767) 0 81,970	\$120,737 (39,059) 0 81,678	\$120,737 (39,351) 0 81,386	\$120,737 (39,643) 0 81,094	\$120,737 (39,935) 0 80,802	\$120,737 (40,227) 0 80,510	\$120,737 (40,519) 0 80,218	\$120,737 (40,811) 0 79,926	\$120,737 (41,103) 0 79,634	\$120,737 (41,395) 0 79,342	
6.	Average Net Investment		82,700	82,408	82,116	81,824	81,532	81,240	80,948	80,656	80,364	80,072	79,780	79,488	
7.	Return on Average Net Investment a. Equity Component Grossed Up For Ta b. Debt Component Grossed Up For Ta		541 154	539 153	537 152	535 152	533 151	531 151	530 150	528 150	526 149	524 149	522 148	520 148	\$6,366 1,807
8.	Investment Expenses a. Depreciation (D) b. Amortization c. Dismantlement d. Property Taxes e. Other		292 0 0 0	292 0 0 0 0	3,504 0 0 0										
9.	Total System Recoverable Expenses (Lina. Recoverable Costs Allocated to Energib. Recoverable Costs Allocated to Dema	gy .	987 987 0	984 984 0	981 981 0	979 979 0	976 976 0	974 974 0	972 972 0	970 970 0	967 967 0	965 965 0	962 962 0	960 960 0	11,677 11,677 0
10. 11.	Energy Jurisdictional Factor Demand Jurisdictional Factor		1.0000000 1.0000000												
12. 13. 14.	Retail Energy-Related Recoverable Cost Retail Demand-Related Recoverable Cost Total Jurisdictional Recoverable Costs (L	sts (F)	987 0 \$987	984 0 \$984	981 0 \$981	979 0 \$979	976 0 \$976	974 0 \$974	972 0 \$972	970 0 \$970	967 0 \$967	965 0 \$965	962 0 \$962	960 0 \$960	11,677 0 \$11,677

- Notes;

 (A) Applicable depreciable base for Big Bend; account 311.40

 (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).

 (C) Line 6 x 2.2281% 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 2014 to December 2014

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

b. Clean c. Retire d. Other	vtion	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
b. Clean c. Retire d. Other	nents														
c. Retire d. Other	enditures/Additions		\$357,776	\$52,498	\$2,970	\$0	\$0	\$30,000	\$0	\$15,000	\$0	\$0	\$0	\$0	\$458,244
d. Other	irings to Plant		\$357,776	\$52,498	\$2,970	0	0	87,257	0	75,512	0	0	0	0	576,013
			0	0	0	0	0	0	0	0	0	0	0	0	
2 Plant-in-9	r - AFUDC (excl from CWIP)		0	0	0	21,257	36,000	19,512	41,000	0	0	0	0	0	117,769
	-Service/Depreciation Base (A)	\$92,225,821	\$92,583,597	\$92,636,095	\$92,639,065	\$92,639,065	\$92,639,065	\$92,726,322	\$92,726,322	\$92,801,834	\$92,801,834	\$92,801,834	\$92,801,834	\$92,801,834	
Less: Ac	Accumulated Depreciation	(42,689,308)	(42,942,929)	(43,197,534)	(43,452,283)	(43,707,040)	(43,961,797)	(44,216,554)	(44,471,551)	(44,726,548)	(44,981,753)	(45,236,958)	(45,492,163)	(45,747,368)	
	Non-Interest Bearing	0	0	0	0	0	0	0	0	0	00	0	0	00	
Net inves	estment (Lines 2 + 3 + 4)	\$49,536,514	49,640,669	49,438,582	49,186,783	48,932,026	48,677,269	48,509,769	48,254,772	48,075,287	47,820,082	47,564,877	47,309,672	47,054,467	
6. Average	e Net Investment		49,588,591	49,539,615	49,312,672	49,059,404	48,804,647	48,593,519	48,382,270	48,165,029	47,947,684	47,692,479	47,437,274	47,182,069	
7. Return o	on Average Net Investment														
	ity Component Grossed Up For Ta		324,396	324,076	322,591	320,934	319,268	317,887	316,505	315,084	313,662	311,992	310,323	308,653	\$3,805,371
b. Debt 0	t Component Grossed Up For Tax	es (C)	92,074	91,983	91,561	91,091	90,618	90,226	89,834	89,430	89,027	88,553	88,079	87,605	1,080,081
8. Investme	nent Expenses														
	reciation (D)		253,621	254,605	254,749	254,757	254,757	254,757	254,997	254,997	255,205	255,205	255,205	255,205	3,056,060
b. Amort	ortization		0	0	0	0	0	0	0	0	0	0	0	0	0
c. Disma	nantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
d. Prope	perty Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
e. Other	er		00_	0	0	0	0	0	0	. 0	0	0	0	0	0
9. Total Svs	vstem Recoverable Expenses (Lin	es 7 + 8)	670,091	670,664	668,901	666,782	664,643	662,870	661,336	659,511	657.894	655,750	653,607	651,463	7,943,512
	overable Costs Allocated to Energ		670,091	670,664	668,901	666,782	664,643	662,870	661,336	659,511	657,894	655,750	653,607	651,463	7,943,512
	overable Costs Allocated to Dema		0	0	0	0	0	0	0	0	0	0	0	0	0
10. Energy J	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	
	d Jurisdictional Factor			1.000000											
40 8-4-75			1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
	Balata d Bassa sanabla Cast	· (F)													7 042 512
13. Retail De	Energy-Related Recoverable Costs Demand-Related Recoverable Cos		1.0000000	1.0000000	1.0000000	1.0000000 666,782	1.0000000 664,643	1.0000000 662,870	1.0000000	1.0000000 659,511	657,894	1.0000000 655,750 0	653,607	1.0000000 651,463	7,943,512 0

Notes:

- (A) Applicable depreciable base for Big Bend; account 312.46
 (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).
 (C) Line 6 x 2.2281% x 1/12.
 (D) Applicable depreciation rates are 3.3%
 (E) Line 9a x Line 10

- (F) Line 9b x Line 11

Form 42-4P

Page 9 of 25

End of

Tampa Electric Company Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2014 to December 2014

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments a. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other		\$0 0 0	\$0											
2. 3. 4. 5.	Plant-in-Service/Depreciation Base (A) Less: Accumulated Depreciation CWIP - Non-Interest Bearing Net Investment (Lines 2 + 3 + 4)	\$21,739,737 (6,617,773) 0 \$15,121,964	\$21,739,737 (6,663,047) 0 15,076,690	\$21,739,737 (6,708,321) 0 15,031,416	\$21,739,737 (6,753,595) 0 14,986,142	\$21,739,737 (6,798,869) 0 14,940,868	\$21,739,737 (6,844,143) 0 14,895,594	\$21,739,737 (6,889,417) 0 14,850,320	\$21,739,737 (6,934,691) 0 14,805,046	\$21,739,737 (6,979,965) 0 14,759,772	\$21,739,737 (7,025,239) 0 14,714,498	\$21,739,737 (7,070,513) 0 14,669,224	\$21,739,737 (7,115,787) 0 14,623,950	\$21,739,737 (7,161,061) 0 14,578,676	
6.	Average Net Investment		15,099,327	15,054,053	15,008,779	14,963,505	14,918,231	14,872,957	14,827,683	14,782,409	14,737,135	14,691,861	14,646,587	14,601,313	
7.	Return on Average Net Investment a. Equity Component Grossed Up For Ta b. Debt Component Grossed Up For Tax		98,776 28,036	98,480 27,952	98,184 27,868	97,888 27,783	97,591 27,699	97,295 27,615	96,999 27,531	96,703 27,447	96,407 27,363	96,110 27,279	95,814 27,195	95,518 27,111	\$1,165,765 330,879
8.	Investment Expenses a. Depreciation (D) b. Amortization c. Dismantlement d. Property Taxes e. Other	,	45,274 0 0 0	45,274 0 0 0	45,274 0 0 0	45,274 0 0 0	45,274 0 0 0 0	45,274 0 0 0	543,288 0 0 0						
9.	Total System Recoverable Expenses (Lin a. Recoverable Costs Allocated to Energ b. Recoverable Costs Allocated to Dema)y	172,086 172,086 0	171,706 171,706 0	171,326 171,326 0	170,945 170,945 0	170,564 170,564 0	170,184 170,184 0	169,804 169,804 0	169,424 169,424 0	169,044 169,044 0	168,663 168,663 0	168,283 168,283 0	167,903 167,903 0	2,039,932 2,039,932 0
10. 11.	Energy Jurisdictional Factor Demand Jurisdictional Factor		1.0000000 1.0000000												
12. 13. 14.	Retail Energy-Related Recoverable Costs Retail Demand-Related Recoverable Cost Total Jurisdictional Recoverable Costs (L	sts (F)	172,086 0 \$172,086	171,706 0 \$171,706	171,326 0 \$171,326	170,945 0 \$170,945	170,564 0 \$170,564	170,184 0 \$170,184	169,804 0 \$169,804	169,424 0 \$169,424	169,044 0 \$169,044	168,663 0 \$168,663	168,283 0 \$168,283	167,903 0 \$167,903	2,039,932 0 \$2,039,932

- (A) Applicable depreciable base for Big Bend; accounts 312.45 (\$21,699,919)and 311.45 (\$39,818)
 (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 36.575% (expansion factor of 1.628002).
 (C) Line 6 x 2.2281% x 1/12.
- (D) Applicable depreciation rates are 2.5% and 2.0%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1,	Investments a. Expenditures/Additions b. Clearings to Plant		\$0 0	\$0											
	c. Retirements d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2. 3. 4.	Plant-in-Service/Depreciation Base (A) Less: Accumulated Depreciation CWIP - Non-Interest Bearing	\$3,190,852 2,360,811 0	\$3,190,852 2,350,627 0	\$3,190,852 2,340,443 0	\$3,190,852 2,330,259 0	\$3,190,852 2,320,075 0	\$3,190,852 2,309,891 0	\$3,190,852 2,299,707 0	\$3,190,852 2,289,523 0	\$3,190,852 2,279,339 0	\$3,190,852 2,269,155 0	\$3,190,852 2,258,971 0	\$3,190,852 2,248,787 0	\$3,190,852 2,238,603 0	
5.	Net Investment (Lines 2 + 3 + 4)	\$5,551,663	5,541,479	5,531,295	5,521,111	5,510,927	5,500,743	5,490,559	5,480,375	5,470,191	5,460,007	5,449,823	5,439,639	5,429,455	
6.	Average Net Investment		5,546,571	5,536,387	5,526,203	5,516,019	5,505,835	5,495,651	5,485,467	5,475,283	5,465,099	5,454,915	5,444,731	5,434,547	
7.	Return on Average Net Investment a. Equity Component Grossed Up For Ta b. Debt Component Grossed Up For Tax		36,284 10,299	36,218 10,280	36,151 10,261	36,084 10,242	36,018 10,223	35,951 10,204	35,885 10,185	35,818 10,166	35,751 10,147	35,685 10,128	35,618 10,110	35,551 10,091	\$431,014 122,336
8.	Investment Expenses a. Depreciation (D) b. Amortization c. Dismantlement d. Property Taxes e. Other		10,184 0 0 0	122,208 0 0 0											
9.	Total System Recoverable Expenses (Lir a. Recoverable Costs Allocated to Energ b. Recoverable Costs Allocated to Dema	Iy	56,767 56,767 0	56,682 56,682 0	56,596 56,596 0	56,510 56,510 0	56,425 56,425 0	56,339 56,339 0	56,254 56,254 0	56,168 56,168 0	56,082 56,082 0	55,997 55,997 0	55,912 55,912 0	55,826 55,826 0	675,558 675,558 0
10. 11.	Energy Jurisdictional Factor Demand Jurisdictional Factor		1.0000000 1.0000000												
12. 13. 14.	Retail Energy-Related Recoverable Cost Retail Demand-Related Recoverable Cost Total Jurisdictional Recoverable Costs (L	ts (F)	56,767 0 \$56,767	56,682 0 \$56,682	56,596 0 \$56,596	56,510 0 \$56,510	56,425 0 \$56,425	56,339 0 \$56,339	56,254 0 \$56,254	56,168 0 \$56,168	56,082 0 \$56,082	55,997 0 \$55,997	55,912 0 \$55,912	55,826 0 \$55,826	675,558 0 \$675,558

- Notes:

 (A) Applicable depreciable base for Big Bend; accounts 312.41 (\$1,675,171), 312.42 (\$1,075,718), and 312.43 (\$439,963).

 (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).

 (C) Line 6 x 2.2281% 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

Form 42-4P Page 12 of 25

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
		T GROOT STIOGRE	oundary	Tobradiy	Maion	- дрії	ividy	Julie	July	August	September	October	IAOAGUIDEL	December	Total
1.	investments														
	 a. Expenditures/Additions 		\$196,190	\$587,760	\$978,990	\$105,753	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,868,693
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	1,959,110	\$1,959,110
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	\$15,110,013	\$15,110,013	\$15,110,013	\$15.110.013	\$15,110,013	\$15,110,013	\$15,110,013	\$15,110,013	\$15,110,013	\$15,110,013	\$15.110.013	\$ 15,110,013	\$17.069.123	
3.	Less: Accumulated Depreciation	(2,488,824)	(2,534,341)	(2,579,858)	(2,625,375)	(2,670,892)	(2,716,409)	(2,761,926)	(2,807,443)	(2,852,960)	(2,898,477)	(2,943,994)	(2,989,511)	(3,035,028)	
4.	CWIP - Non-Interest Bearing	90,417	286,607	874,367	1,853,357	1,959,110	1,959,110	1,959,110	1,959,110	1,959,110	1,959,110	1,959,110	1,959,110	0	
5.	Net Investment (Lines 2 + 3 + 4)	\$12,711,606	12,862,279	13,404,522	14,337,995	14,398,231	14,352,714	14,307,197	14,261,680	14,216,163	14,170,646	14,125,129	14,079,612	14,034,095	
6.	Average Net Investment		12,786,942	13,133,400	13,871,258	14,368,113	14,375,472	14,329,955	14,284,438	14,238,921	14,193,404	14,147,887	14,102,370	14,056,853	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For T.	axes (B)	83,649	85,915	90,742	93,993	94,041	93,743	93,445	93,147	92,850	92,552	92,254	91.956	\$1,098,287
	b. Debt Component Grossed Up For Tax	xes (C)	23,742	24,385	25,755	26,678	26,692	26,607	26,523	26,438	26,354	26,269	26,185	26,100	311,728
8.	Investment Expenses														
	a. Depreciation (D)		45,517	45,517	45,517	45,517	45,517	45,517	45,517	45,517	45,517	45,517	45.517	45,517	546,204
	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 (Lie		152,908	155,817	162,014	166,188	166,250	165,867	165,485	165,102	164,721	164,338	163,956	163,573	1,956,219
	 a. Recoverable Costs Allocated to Energy 		152,908	155,817	162,014	166,188	166,250	165,867	165,485	165,102	164,721	164,338	163,956	163,573	1,956,219
	b. Recoverable Costs Allocated to Dema	and	0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Cost	s (E)	152,908	155,817	162,014	166,188	166,250	165,867	165,485	165,102	164,721	164.338	163.956	163,573	1,956,219
13.	Retail Demand-Related Recoverable Cos		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (L	ines 12 + 13)	\$152,908	\$155,817	\$162,014	\$166,188	\$166,250	\$165,867	\$165,485	\$165,102	\$164,721	\$164,338	\$163,956	\$163,573	\$1,956,219

- (A) Applicable depreciable base for Big Bend; accounts 312.41 (\$3,403,228), 312.42 (\$5,153,072), 312.43 (\$7,546,026), 315.41 (\$17,504), 315.44 (\$351,594), and 315.43 (\$528,554) (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).
- (C) Line 6 x 2.2281% 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 2014 to December 2014

Form 42-4P Page 13 of 25

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments a. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other		\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0							
2. 3. 4. 5.	Plant-in-Service/Depreciation Base (A) Less: Accumulated Depreciation CWIP - Non-Interest Bearing Net Investment (Lines 2 + 3 + 4)	\$1,561,473 (524,058) 0 \$1,037,415	\$1,561,473 (528,482) 0 1,032,991	\$1,561,473 (532,906) 0 1,028,567	\$1,561,473 (537,330) 0 1,024,143	\$1,561,473 (541,754) 0 1,019,719	\$1,561,473 (546,178) 0 1,015,295	\$1,561,473 (550,602) 0 1,010,871	\$1,561,473 (555,026) 0 1,006,447	\$1,561,473 (559,450) 0 1,002,023	\$1,561,473 (563,874) 0 997,599	\$1,561,473 (568,298) 0 993,175	\$1,561,473 (572,722) 0 988,751	\$1,561,473 (577,146) 0 984,327	
6.	Average Net Investment	\$1,007,410	1,035,203	1,030,779	1,026,355	1,021,931	1,017,507	1,013,083	1,008,659	1,004,235	999,811	995,387	990,963	986,539	
7.	Return on Average Net Investment a. Equity Component Grossed Up For Ta b. Debt Component Grossed Up For Tax		6,772 1,922	6,743 1,914	6,714 1,906	6,685 1,897	6,656 1,889	6,627 1,881	6,598 1,873	6,569 1,865	6,541 1,856	6,512 1,8 4 8	6,483 1,840	6,454 1,832	\$79,354 22,523
8.	Investment Expenses a. Depreciation (D) b. Amortization c. Dismantlement d. Property Taxes e. Other		4,424 0 0 0 0	4,424 0 0 0 0	4,424 0 0 0 0	4,424 0 0 0	4,424 0 0 0	4,424 0 0 0	4,424 0 0 0	4,424 0 0 0	4,424 0 0 0	4,424 0 0 0	4,424 0 0 0	4,424 0 0 0	53,088 0 0 0
9.	Total System Recoverable Expenses (Lir a. Recoverable Costs Allocated to Energ b. Recoverable Costs Allocated to Dema	y	13,118 13,118 0	13,081 13,081 0	13,044 13,044 0	13,006 13,006 0	12,969 12,969 0	12,932 12,932 0	12,895 12,895 0	12,858 12,858 0	12,821 12,821 0	12,784 12,784 0	12,747 12,747 0	12,710 12,710 0	154,965 154,965 0
10. 11.	Energy Jurisdictional Factor Demand Jurisdictional Factor		1.0000000 1.0000000	1.0000000 1.0000000	1.0000000 1.0000000	1.0000000 1.0000000	1.0000000 1.0000000								
12. 13. 14.	Retail Energy-Related Recoverable Cost Retail Demand-Related Recoverable Cost Total Jurisdictional Recoverable Costs (L	its (F)	13,118 0 \$13,118	13,081 0 \$13,081	13,044 0 \$13,044	13,006 0 \$13,006	12,969 0 \$12,969	12,932 0 \$12,932	12,895 0 \$12,895	12,858 0 \$12,858	12,821 0 \$12,821	12,784 0 \$12,784	12,747 0 \$12,747	12,710 0 \$12,710	154,965 0 \$154,965

- Notes:

 (A) Applicable depreciable base for Polk; account 342.81

 (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).

 - (B) Line 6 x 2.2281% x 1/12. Based on F (C) Line 6 x 2.2281% 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

Form 42-4P Page 14 of 25

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

Environmental Cost Recovery Clause (ECRC)

Calculation of the Projected Period Amount January 2014 to December 2014

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	 b. Clearings to Plant 		0	0	0	0	0	0	0	0	0	0	0	0	*-
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	\$2,558,730	\$2,558,730	\$2,558,730	\$2,558,730	\$2,558,730	\$2,558,730	\$2,558,730	\$2,558,730	\$2,558,730	\$2.558.730	\$2,558,730	\$2,558,730	\$2,558,730	
3.	Less: Accumulated Depreciation	(602,378)	(608,775)	(615,172)	(621,569)	(627,966)	(634,363)	(640,760)	(647,157)	(653,554)	(659,951)	(666,348)	(672,745)	(679,142)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	o´	` o′	` oʻ	` oʻ	` o´	0	
5.	Net Investment (Lines 2 + 3 + 4)	\$1,956,352	1,949,955	1,943,558	1,937,161	1,930,764	1,924,367	1,917,970	1,911,573	1,905,176	1,898,779	1,892,382	1,885,985	1,879,588	
6.	Average Net Investment		1,953,154	1,946,757	1,940,360	1,933,963	1,927,566	1,921,169	1,914,772	1,908,375	1,901,978	1,895,581	1,889,184	1,882,787	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Ta		12,777	12,735	12,693	12,652	12,610	12,568	12,526	12,484	12,442	12,400	12,359	12,317	\$150,563
	b. Debt Component Grossed Up For Tax	es (C)	3,627	3,615	3,603	3,591	3,579	3,567	3,555	3,543	3,531	3,520	3,508	3,496	42,735
8.	Investment Expenses														
•	a. Depreciation (D)		6.397	6,397	6,397	6.397	6,397	6,397	6,397	6.397	6.397	6,397	6.397	6,397	76,764
	b. Amortization		0	0,007	0,001	0,007	0,007	0,001	0,007	0,007	0,557	0,337	0,557	0,557	70,704
	c. Dismantlement		Ō	0	0	ō	Ō	ō	ō	ő	ŏ	Ö	Ö	ő	ő
	d. Property Taxes		0	0	0	0	0	0	0	0	Ō	Ō	ō	Ō	ō
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lin	es 7 + 8)	22.801	22,747	22,693	22,640	22,586	22,532	22,478	22.424	22,370	22,317	22,264	22,210	270.062
	a. Recoverable Costs Allocated to Energ		22,801	22,747	22,693	22,640	22,586	22,532	22,478	22,424	22,370	22,317	22,264	22,210	270,062
	b. Recoverable Costs Allocated to Dema		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	4 0000000	4 0000000	4 0000000	4 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	
40															
12.	Retail Energy-Related Recoverable Costs		22,801	22,747	22,693	22,640	22,586	22,532	22,478	22,424	22,370	22,317	22,264	22,210	270,062
13. 14.	Retail Demand-Related Recoverable Cos Total Jurisdictional Recoverable Costs (Li		\$22,801	\$22,747	\$22,693	622.640	0 500	0 000 500	0 0	0_	0	0	0	0	0
14.	Total Julistictional Recoverable Costs (El	HIUS 12 + 13)	₽ ∠2,001	⊅∠∠,/4/	∌∠2,093	\$22,640	\$22,586	\$22,532	\$22,478	\$22,424	\$22,370	\$22,317	\$22,264	\$22,210	\$270,062

Notes:

- (A) Applicable depreciable base for Big Bend; account 312.44
- (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002). (C) Line 6 x 2.2281% x 1/12.
- (D) Applicable depreciation rate is 3.0%
 (E) Line 9a x Line 10
- (F) Line 9b x Line 11

Form 42-4P Page 15 of 25

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount January 2014 to December 2014

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments a. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other		\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0 0	\$0 0 0 0	\$0 0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0 0	\$0
2. 3. 4.	Plant-in-Service/Depreciation Base (A) Less: Accumulated Depreciation CWIP - Non-Interest Bearing	\$1,649,121 (401,773) 0	\$1,649,121 (407,270) 0	0	\$1,649,121 (418,264) 0	\$1,649,121 (423,761) 0	\$1,649,121 (429,258) 0	(434,755) 0	\$1,649,121 (440,252) 0	\$1,649,121 (445,749) 0	\$1,649,121 (451,246) 0	\$1,649,121 (456,743) 0	\$1,649,121 (462,240) 0	\$1,649,121 (467,737) 0	
5. 6.	Net Investment (Lines 2 + 3 + 4) Average Net Investment	\$1,247,348	1,241,851	1,236,354	1,230,857	1,225,360	1,219,863	1,214,366	1,208,869	1,203,372	1,197,875	1,192,378 1,195,127	1,186,881	1,181,384	
7.	Return on Average Net Investment a. Equity Component Grossed Up For Ta b. Debt Component Grossed Up For Tax		8,1 42 2,311	8,106 2,301	8,070 2,290	8,034 2,280	7,998 2,270	7,962 2,260	7,926 2,250	7,890 2,239	7,854 2,229	7,818 2,219	7,782 2,209	7,746 2,199	\$95,328 27,057
8.	Investment Expenses a. Depreciation (D) b. Amortization c. Dismantlement d. Property Taxes e. Other		5,497 0 0 0 0	5,497 0 0 0	5,497 0 0 0 0	5,497 0 0 0 0	5,497 0 0 0 0	5,497 0 0 0 0	5,497 0 0 0 0	5,497 0 0 0 0	5,497 0 0 0 0	5,497 0 0 0 0	5,497 0 0 0 0	5,497 0 0 0	65,964 0 0 0
9.	Total System Recoverable Expenses (Lin a. Recoverable Costs Allocated to Energ b. Recoverable Costs Allocated to Dema	y	15,950 15,950 0	15,904 15,904 0	15,857 15,857 0	15,811 15,811 0	15,765 15,765 0	15,719 15,719 0	15,673 15,673 0	15,626 15,626 0	15,580 15,580 0	15,534 15,534 0	15,488 15,488 0	15,442 15,442 0	188,349 188,349 0
10. 11.	Energy Jurisdictional Factor 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	1.0000000 1.0000000	1.0000000 1.0000000	1.0000000 1.0000000	1.0000000 1.0000000	1.0000000 1.0000000	
12. 13. 14.	Retail Energy-Related Recoverable Costs Retail Demand-Related Recoverable Cost Total Jurisdictional Recoverable Costs (Li	ts (F)	15,950 0 \$15,950	15,904 0 \$15,904	15,857 0 \$15,857	15,811 0 \$15,811	15,765 0 \$15,765	15,719 0 \$15,719	15,673 0 \$15,673	15,626 0 \$15,626	15,580 0 \$15,580	15,534 0 \$15,534	15,488 0 \$15,488	15,442 0 \$15,442	188,349 0 \$188,349

Notes:

- (A) Applicable depreciable base for Big Bend; account 312.41
 (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).
 (C) Line 6 x 2.2281% 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 2014 to December 2014

Form 42-4P Page 16 of 25

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments a. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other		\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0
2. 3. 4. 5.	Plant-in-Service/Depreciation Base (A) Less: Accumulated Depreciation CWIP - Non-Interest Bearing Net Investment (Lines 2 + 3 + 4)	\$1,581,887 (360,224) 0 \$1,221,663	\$1,581,887 (365,101) 0 1,216,786	\$1,581,887 (369,978) 0	\$1,581,887 (374,855) 0 1,207,032	\$1,581,887 (379,732) 0 1,202,155	\$1,581,887 (384,609) 0 1,197,278	\$1,581,887 (389,486) 0 1,192,401	\$1,581,887 (394,363) 0 1,187,524	\$1,581,887 (399,240) 0 1,182,647	\$1,581,887 (404,117) 0 1,177,770	\$1,581,887 (408,994) 0 1,172,893	\$1,581,887 (413,871) 0 1,168,016	\$1,581,887 (418,748) 0 1,163,139	
5. 6.	Average Net Investment	\$1,221,003	1,219,225	1,211,909	1,207,032	1,202,155	1,199,717	1,194,840	1,189,963	1,185,086	1,180,209	1,175,332	1,170,455	1,165,578	
7.	Return on Average Net Investment a. Equity Component Grossed Up For Ta b. Debt Component Grossed Up For Tax		7,976 2,264	7,944 2,255	7,912 2,246	7,880 2,237	7,848 2,228	7,816 2,219	7,784 2,209	7,753 2,200	7,721 2,191	7,689 2,182	7,657 2,173	7,625 2,164	\$93,605 26,568
8.	Investment Expenses a. Depreciation (D) b. Amortization c. Dismantlement d. Property Taxes e. Other		4,877 0 0 0	4,877 0 0 0	4,877 0 0 0	4,877 0 0 0 0	4,877 0 0 0	4,877 0 0 0 0	4,877 0 0 0	4,877 0 0 0	4,877 0 0 0	4,877 0 0 0 0	4,877 0 0 0	4,877 0 0 0 0	58,524 0 0 0
9.	Total System Recoverable Expenses (Lin a. Recoverable Costs Allocated to Energ b. Recoverable Costs Allocated to Dema	y	15,117 15,117 0	15,076 15,076 0	15,035 15,035 0	14,994 14,994 0	14,953 14,953 0	14,912 14,912 0	14,870 14,870 0	14,830 14,830 0	14,789 14,789 0	14,748 14,748 0	14,707 14,707 0	14,666 14,666 0	178,697 178,697 0
10. 11.	Energy Jurisdictional Factor 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	1.0000000 1.0000000	1.0000000 1.0000000	1.0000000 1.0000000	1.0000000 1.0000000	1.0000000 1.0000000	
12. 13. 14.	Retail Energy-Related Recoverable Costs Retail Demand-Related Recoverable Cost Total Jurisdictional Recoverable Costs (Li	ts (F)	15,117 0 \$15,117	15,076 0 \$15,076	15,035 0 \$1 5,035	14,994 0 \$14,994	14,953 0 \$14,953	14,912 0 \$14,912	14,870 0 \$14,870	14,830 0 \$14,830	14,789 0 \$14,789	14,748 0 \$14,748	14,707 0 \$14,707	14,666 0 \$14,666	178,697 0 \$178,697

- Notes:

 (A) Applicable depreciable base for Big Bend; account 312.42

 (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).

 (C) Line 6 x 2.2281% 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 2014 to December 2014

Form 42-4P Page 17 of 25

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments a. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other		\$0 0 0	\$0											
2. 3. 4.	Plant-in-Service/Depreciation Base (A) Less: Accumulated Depreciation CWIP - Non-Interest Bearing	\$2,706,507 (450,458) 0	\$2,706,507 (458,411) 0	\$2,706,507 (466,364) 0	\$2,706,507 (474,317) 0	\$2,706,507 (482,270) 0	\$2,706,507 (490,223) 0	\$2,706,507 (498,176) 0	\$2,706,507 (506,129) 0	\$2,706,507 (514,082) 0	\$2,706,507 (522,035) 0	\$2,706,507 (529,988) 0	\$2,706,507 (537,941) 0	\$2,706,507 (545,894) 0	
5. 6.	Net Investment (Lines 2 + 3 + 4) Average Net Investment	\$2,256,049	2,248,096	2,240,143	2,232,190	2,224,237	2,216,284	2,208,331	2,200,378	2,192,425	2,184,472	2,176,519	2,168,566 2,172,543	2,160,613 2,164,590	
7.	Return on Average Net Investment a. Equity Component Grossed Up For Ta b. Debt Component Grossed Up For Tax		14,732 4,182	14,680 4,167	14,628 4,152	14,576 4,137	14,524 4,122	14,472 4,108	14,420 4,093	14,368 4,078	14,316 4,063	14,264 4,049	14,212 4,034	14,160 4,019	\$173,352 49,204
8.	Investment Expenses a. Depreciation (D) b. Amortization c. Dismantlement d. Property Taxes e. Other		7,953 0 0 0 0	7,953 0 0 0 0	7,953 0 0 0	7,953 0 0 0 0	95,436 0 0 0								
9.	Total System Recoverable Expenses (Lir a. Recoverable Costs Allocated to Energ b. Recoverable Costs Allocated to Dema	ly ,	26,867 26,867 0	26,800 26,800 0	26,733 26,733 0	26,666 26,666 0	26,599 26,599 0	26,533 26,533 0	26,466 26,466 0	26,399 26,399 0	26,332 26,332 0	26,266 26,266 0	26,199 26,199 0	26,132 26,132 0	317,992 317,992 0
10. 11.	Energy Jurisdictional Factor Demand Jurisdictional Factor		1.0000000 1.0000000												
12. 13. 14.	Retail Energy-Related Recoverable Cost Retail Demand-Related Recoverable Cost Total Jurisdictional Recoverable Costs (L	sts (F)	26,867 0 \$26,867	26,800 0 \$26,800	26,733 0 \$26,733	26,666 0 \$26,666	26,599 0 \$26,599	26,533 0 \$26,533	26,466 0 \$26,466	26,399 0 \$26,399	26,332 0 \$26,332	26,266 0 \$26,266	26,199 0 \$26,199	26,132 0 \$26,132	317,992 0 \$317,992

- Notes:

 (A) Applicable depreciable base for Big Bend; account 312.43 (\$1,995,677) and 315.43 (\$710,830)

 (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).

 (C) Line 6 x 2.2281% 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

Form 42-4P Page 18 of 25

Tampa Electric Company Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2014 to December 2014

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	•-
	c. Retirements		0	0	0	0	0	0	0	0	ō	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	\$85,847,435	\$85,847,435	\$85,847,435	\$85,847,435	\$85,847,435	\$85,847,435	\$85,847,435	\$85,847,435	\$85,847,435	\$85,847,435	\$85.847.435	\$85,847,435	\$85,847,435	
3.	Less: Accumulated Depreciation	(14,032,917)	(14,342,543)	(14,652,169)	(14,961,795)	(15,271,421)	(15,581,047)	(15,890,673)	(16,200,299)	(16,509,925)	(16,819,551)	(17,129,177)	(17,438,803)	(17,748,429)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	\$71,814,518	71,504,892	71,195,266	70,885,640	70,576,014	70,266,388	69,956,762	69,847,138	69,337,510	69,027,884	68,718,258	68,408,632	68,099,006	
6.	Average Net Investment		71,659,705	71,350,079	71,040,453	70,730,827	70,421,201	70,111,575	69,801,949	69,492,323	69,182,697	68,873,071	68,563,445	68,253,819	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		468,780	466,754	464,729	462,703	460,678	458,652	456,627	454,601	452,576	450,550	448,525	446,499	\$5,491,674
	b. Debt Component Grossed Up For Taxes (C)		133,054	132,479	131,904	131,329	130,755	130,180	129,605	129,030	128,455	127,880	127,305	126,730	1,558,706
8.	Investment Expenses														
	a. Depreciation (D)		309,626	309,626	309,626	309,626	309,626	309,626	309,626	309,626	309,626	309,626	309,626	309,626	3,715,512
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0,7 10,012
	c. Dismantlement		0	0	0	0	ō	Ō	0	ō	ō	ō	ō	ō	ō
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other	_	0	0	0	. 0	0	00	0	0	0	00	0	0	0
9.	Total System Recoverable Expenses (Lines 7 + 8)		911,460	908,859	906,259	903,658	901,059	898,458	895,858	693,257	890,657	888,056	685,456	882,855	10,765,892
	a. Recoverable Costs Allocated to Energy		911,460	908,859	906,259	903,658	901,059	898,458	695,858	893,257	890,657	888,056	885,456	682,855	10,765,892
	 Recoverable Costs Allocated to Demand 		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1,0000000	1.0000000	
11.			1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.000000	
40	Batall Francisco Batalanda (S)		044.400		000.000										
12.	Retail Energy-Related Recoverable Costs (E) Retail Demand-Related Recoverable Costs (F)		911,460	908,859	906,259	903,658	901,059	898,458	895,858	893,257	890,657	888,056	885,456	682,855	10,765,892
13.	Retail Demand-Related Recoverable Costs (F) Total Jurisdictional Recoverable Costs (Lines 12 +		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	TOTAL JURISCHCHONEL RECOVERABLE COSTS (LINES 12 +	13)	\$911,460	\$908,659	\$906,259	\$903,658	\$901,059	\$898,458	\$895,858	\$893,257	\$890,657	\$888,056	\$885,458	\$882,855	\$10,765,892

Notes:
(A) Applicable depreciable base for Big Bend; account 311.51 (\$22,278,982), 312.51 (\$48,656,005), 315.51 (\$14,063,245), and 316.51 (\$847,203).
(B) Line 6 x 7.8501% x 7/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.828002).
(C) Line 6 x 2.2281% 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 2014 to December 2014

Form 42-4P Page 19 of 25

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments a. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other		\$0 0 0	\$0											
2. 3. 4. 5.	Plant-in-Service/Depreciation Base (A) Less: Accumulated Depreciation CWIP - Non-Interest Bearing Net Investment (Lines 2 + 3 + 4)	\$93,776,412 (16,136,447) 0 \$77,639,965	\$93,776,412 (16,439,618) 0 77,336,794	\$93,776,412 (16,742,789) 0 77,033,623	\$93,776,412 (17,045,960) 0 76,730,452	\$93,776,412 (17,349,131) 0 76,427,281	\$93,776,412 (17,652,302) 0 76,124,110	\$93,776,412 (17,955,473) 0 75,820,939	\$93,776,412 (18,258,644) 0 75,517,768	\$93,776,412 (18,561,815) 0 75,214,597	\$93,776,412 (18,864,986) 0 74,911,426	\$93,776,412 (19,168,157) 0 74,608,255	\$93,776,412 (19,471,328) 0 74,305,084	\$93,776,412 (19,774,499) 0 74,001,913	
6.	Average Net Investment		77,488,379	77,185,208	76,882,037	76,578,866	76,275,695	75,972,524	75,669,353	75,366,182	75,063,011	74,759,840	74,456,669	74,153,498	
7.	Return on Average Net Investment a. Equity Component Grossed Up For T b. Debt Component Grossed Up For Ta		506,910 143,877	504,926 143,314	502,943 142,751	500,960 142,188	498,977 141,625	496,993 141,082	495,010 140,499	493,027 139,936	491,043 139,373	489,060 138,810	487,077 138,247	485,094 137,685	\$5,952,020 1,689,367
8.	Investment Expenses a. Depreciation (D) b. Amortization c. Dismantlement d. Property Taxes e. Other	_	303,171 0 0 0 0	303,171 0 0 0	303,171 0 0 0 0	303,171 0 0 0	303,171 0 0 0	303,171 0 0 0	303,171 0 0 0 0	303,171 0 0 0	303,171 0 0 0	303,171 0 0 0 0	303,171 0 0 0	303,171 0 0 0	3,638,052 0 0 0
9.	Total System Recoverable Expenses (Li a. Recoverable Costs Allocated to Ener b. Recoverable Costs Allocated to Demi	gy	953,958 953,958 0	951,411 951,411 0	948,865 948,865 0	946,319 946,319 0	943,773 943,773 0	941,226 941,226 0	938,680 938,680 0	936,134 936,134 0	933,587 933,587 0	931,041 931,041 0	928,495 928,495 0	925,950 925,950 0	11,279,439 11,279,439 0
10. 11.	Energy Jurisdictional Factor Demand Jurisdictional Factor		1.0000000 1.0000000												
12. 13. 14.	Retail Energy-Related Recoverable Cos Retail Demand-Related Recoverable Co Total Jurisdictional Recoverable Costs (I	sts (F)	953,958 0 \$953,958	951,411 0 \$951,411	948,865 0 \$948,865	946,319 0 \$946,319	943,773 0 \$943,773	941,226 0 \$941,226	938,680 0 \$938,680	936,134 0 \$936,134	933,587 0 \$933,587	931,041 0 \$931,041	928,495 0 \$928,495	925,950 0 \$925,950	11,279,439 0 \$11,279,439

- (A) Applicable depreciable base for Big Bend; account 311.52 (\$25,208,869), 312.52(\$51,694,500), 315.52 (\$15,914,427), and 316.52 (\$958,618).
 (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).

- (a) Line 9 x 7.530 1% x 712. Based on ROE of 11.23% and weight (C) Line 8 x 2.2281% 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

Form 42-4P Page 20 of 25

Tampa Electric Company Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2014 to December 2014

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

Line	Description	Beginning of Period Amount	Projected Jenuery	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 b. Clearings to Plant c. Retirements d. Other		\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0
2. 3. 4. 5.	Plant-in-Service/Depreciation Base (A) Less: Accumulated Depreciation CWIP - Non-Interest Bearing Net Investment (Lines 2 + 3 + 4)	\$80,369,887 (16,015,549) 0 \$64,354,338	\$80,369,887 (16,263,090) 0 64,106,797	\$80,369,887 (16,510,631) 0 63,859,256	\$80,369,887 (16,758,172) 0 63,611,715	\$80,369,887 (17,005,713) 0 63,364,174	\$80,369,887 (17,253,254) 0 83,116,633	\$80,369,887 (17,500,795) 0 62,869,092	(17,748,336) 0 62,621,551	\$80,369,887 (17,995,877) 0 82,374,010	\$80,369,887 (18,243,418) 0 62,126,469	\$80,369,887 (18,490,959) 0 61,878,928	\$80,369,887 (18,738,500) 0 61,631,387 61,755,158	\$80,369,887 (18,986,041) 0 61,383,846	
6. 7.	Average Net Investment Return on Average Net Investment a. Equity Component Grossed Up For Tax b. Debt Component Grossed Up For Tax		64,230,568 420,180 119,260	63,983,027 418,561 118,800	416,942 118,341	63,487,945 415,322 117,881	413,703 117,422	62,992,863 412,084 118,962	410,464 116,502	408,845 116,043	407,226 115,583	405,606 115,124	403,987 114,664	61,507,617 402,367 114,204	\$4,935,287 1,400,786
8.	Investment Expenses a. Depreciation (D) b. Amortization c. Dismantlement d. Property Taxes e. Other		247,541 0 0 0	247,541 0 0 0	247,541 0 0 0	247,541 0 0 0	247,541 0 0 0 0	247,541 0 0 0	247,541 0 0 0	247,541 0 0 0	247,541 0 0 0	247,541 0 0 0	247,541 0 0 0	247,541 0 0 0	2,970,492 0 0 0
9.	Total System Recoverable Expenses (Lin a. Recoverable Costs Allocated to Energ b. Recoverable Costs Allocated to Dema	iy .	786,981 786,981 0	784,902 784,902 0	782,824 782,824 0	780,744 780,744 0	778,666 778,666 0	776,587 776,587 0	774,507 774,507 0	772,429 772,429 0	770,350 770,350 0	768,271 768,271 0	766,192 766,192 0	764,112 764,112 0	9,306,565 9,306,565 0
10. 11.	Energy Jurisdictional Factor 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	1.0000000 1.0000000	1.0000000 1.0000000	1.0000000 1.0000000	1.0000000 1.0000000	1.0000000 1.0000000	
12. 13. 14.	Retail Energy-Related Recoverable Cost Retail Demand-Related Recoverable Cost Total Jurisdictional Recoverable Costs (L	sts (F)	786,981 0 \$786,981	784,902 0 \$784,902	782,824 0 \$782,824	780,744 0 \$780,744	778,666 0 \$778,666	776,587 0 \$776,587	774,507 0 \$774,507	772,429 0 \$772,429	770,350 0 \$770,350	768,271 0 \$768,271	766,192 0 \$766,192	764,112 0 \$764,112	9,306,565 0 \$9,306,565

Notes:

- (A) Applicable depreciable base for Big Bend; account 311.53 (\$21,689,422), 312.53 (\$44,164,828), 315.53 (\$13,690,954), and 316.53 (\$824,683). (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002). (C) Line 6 x 2.2281% 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

Form 42-4P Page 21 of 25

Tampa Electric Company Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2014 to December 2014

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	U	0	0	0	0	0	0	0	0	0	
2. 3.	Plant-in-Service/Depreciation Base (A) Less: Accumulated Depreciation	\$64,124,686 (13,714,109)	\$64,124,686 (13,897,998)			\$64,124,686 (14,449,665)		\$64,124,686 (14,817,443)	\$64,124,686 (15,001,332)	\$64,124,686 (15,185,221)	\$64,124,686 (15,369,110)	\$64,124,686 (15,552,999)	\$64,124,686 (15,736,888)	\$64,124,686 (15,920,777)	
4. 5	CWIP - Non-Interest Bearing Net Investment (Lines 2 + 3 + 4)	\$50,410,577	50,226,688	50,042,799	49,858,910	49,675,021	49,491,132	49,307,243	49,123,354	48,939,465	48,755,576	48,571,687	48,387,798	48,203,909	
٠.	Hot myddinolli (Emdo E + G + 4)	400,410,011	30,220,000	00,042,735	43,000,310	49,070,021	40,451,102	49,007,240	48,123,334	40,535,403	40,733,370	40,57 1,007	40,307,730	40,203,909	
6.	Average Net Investment		50,318,633	50,134,744	49,950,855	49,766,966	49,583,077	49,399,188	49,215,299	49,031,410	48,847,521	48,663,632	48,479,743	48,295,854	
7.	Return on Average Net Investment														
	 a. Equity Component Grossed Up For Ta b. Debt Component Grossed Up For Tax 		329,172 93.429	327,969 93,088	326,766 92,746	325,563	324,360	323,157	321,954	320,751	319,548	318,345	317,142	315,939	\$3,870,666
	b. Debt Component Grossed up For Tax	BS (C)	93,429	93,088	92,746	92,405	92,063	91,722	91,381	91,039	90,698	90,356	90,015	89,673	1,098,615
8.	Investment Expenses														
	a. Depreciation (D)		183,889	183,889	183,889	183,889	183,889	183,889	183,889	183,889	183,889	183,889	183,889	183,889	2,206,668
	b. Amortization 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	U
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lin		606,490	604,946	603,401	601,857	600,312	598,768	597,224	595,679	594,135	592,590	591,046	589,501	7,175,949
	Recoverable Costs Allocated to Energ Recoverable Costs Allocated to Dema		606,490	604,946	603,401	601,857	600,312	598,768	597,224	595,679	594,135	592,590	591,046	589,501	7,175,949
	b. Recoverable Costs Allocated to Dema	na	0	0	0	0	0	0	0	0	0	0	0	0	-
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs		606,490	604,946	603,401	601,857	600,312	598,768	597,224	595,679	594,135	592,590	591,046	589,501	7,175,949
13.	Retail Demand-Related Recoverable Cos		. 0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (L	ines 12 + 13)	\$606,490	\$604,946	\$603,401	\$601,857	\$600,312	\$598,768	\$597,224	\$595,679	\$594,135	\$592,590	\$591,046	\$589,501	\$7,175,949

- Notes:

 (A) Applicable depreciable base for Big Bend; account 311.54 (\$16,857,250), 312.54 (\$34,665,822), 315.54 (\$10,642,027), 316.54 (\$687,934), and 315.40 (\$1,271,653).

 (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).

 - (C) Line 6 x 2.2281% x 1/12. (D) Applicable depreciation rate is 2.4%, 3.8%, 3.9%, 3.3%, and 3.7%.

 - (E) Line 9a x Line 10 (F) Line 9b x Line 11

Tampa Electric Company

Environmental Cost Recovery Clause (ECRC)

Calculation of the Projected Period Amount January 2014 to December 2014

Form 42-4P Page 22 of 25

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

Lina	Description	Beginning of	Projected	Projected	Projected	Projected	Projected	End of Period							
Line	Description	Period Amount	January	February	March	April	May	June	July	August	September	October	November	December	Total
1.	Investments														
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	\$24,292,736	\$24,292,736	\$24,292,736	\$24,292,736	\$24.292.736	\$24,292,736	\$24,292,736	\$24,292,736	\$24.292.736	\$24,292,736	\$24.292.736	\$24.292.736	\$24,292,736	
3.	Less: Accumulated Depreciation	(2,137,651)	(2,188,868)	(2,240,085)	(2,291,302)	(2,342,519)	(2,393,736)	(2,444,953)	(2,496,170)	(2,547,387)	(2,598,604)	(2,649,821)	(2,701,038)	(2,752,255)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	O O	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	\$22,155,085	22,103,868	22,052,651	22,001,434	21,950,217	21,899,000	21,847,783	21,796,566	21,745,349	21,694,132	21,642,915	21,591,698	21,540,481	
6.	Average Net Investment		22,129,477	22,078,260	22,027,043	21,975,826	21,924,609	21,873,392	21,822,175	21,770,958	21,719,741	21,668,524	21,617,307	21,566,090	
0.	Average Net IIIVostillalit		22,123,411	22,070,200	22,027,043	21,973,020	21,924,009	21,073,332	21,022,173	21,770,930	21,715,741	21,000,324	21,017,307	21,300,090	
7.	Return on Average Net Investment														
	 a. Equity Component Grossed Up For Taxe 		144,766	144,430	144,095	143,760	143,425	143,090	142,755	142,420	142,085	141,750	141,415	141,080	\$1,715,071
	b. Debt Component Grossed Up For Taxes	(C)	41,089	40,994	40,899	40,804	40,709	40,613	40,518	40,423	40,328	40,233	40,138	40,043	486,791
8	Investment Expenses														
0.	a. Depreciation (D)		51,217	51,217	51,217	51,217	51,217	51,217	51,217	51,217	51,217	51,217	51,217	51,217	614,604
	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)	237,072	236,641	236,211	235,781	235,351	234,920	234,490	234,060	233,630	233,200	232,770	232,340	2.816.466
	a. Recoverable Costs Allocated to Energy	, , ,	237,072	236,641	236,211	235,781	235,351	234,920	234,490	234,060	233,630	233,200	232,770	232,340	2,816,466
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
40	Farmer best distanced Farmer		4 0000000	4 0000000	4 0000000	4 0000000	1 0000000	1 0000000							
10. 11.	Energy Jurisdictional Factor 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	
11.	Demand Junsdictional Pactor		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 (8	≣)	237,072	236,641	236,211	235,781	235,351	234,920	234,490	234,060	233,630	233,200	232,770	232,340	2,816,466
13.	Retail Demand-Related Recoverable Costs		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Line	s 12 + 13)	\$237,072	\$236,641	\$236,211	\$235,781	\$235,351	\$234,920	\$234,490	\$234,060	\$233,630	\$233,200	\$232,770	\$232,340	\$2,816,466

Notes;

(A) Applicable depreciable base for Big Bend; account 312.45 (\$22,836,528) and 312.44 (\$1,456,208)

(B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002).

(C) Line 6 x 2.2281% 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 2014 to December 2014

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

Form 42-4P Page 23 of 25

End of

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	Period Total
1.	Investments a. Expenditures/Additions		\$720,673	\$1,596,540	4 . , ,	\$1,089,987	\$235,497	\$73,149	\$15,004	\$0	\$10,000	\$0	\$0	\$0	\$5,314,447
	b. Clearings to Plant		0	0	207,167	0	6,267,415	73,149	15,004	0	0	0	0	1,307,720	\$7,870,455
	c. Retirements		0	0	0	0	0	0	0	U	0	0	0	0	
	d. Other		0	U	0	0	0	0	U	U	U	U	0	0	
2.	Plant-in-Service/Depreciation Base (A)	\$2,787,703	\$2,787,703	\$2,787,703	\$2,994,870	\$2,994,870	\$9,262,286	\$9,335,435	\$9,350,439	\$9,350,439	\$9,350,439	\$9,350,439	\$9,350,439	\$10,658,159	
3.	Less: Accumulated Depreciation	(196,628)	(204,706)	(212,784)	(220,862)	(229,372)	(237,882)	(261,206)	(284,686)	(308,200)	(331,714)	(355,228)	(378,742)	(402,256)	
4.	CWIP - Non-Interest Bearing	2,640,766	3,361,439	4,957,979	6,324,409	7,414,396	1,382,478	1,382,478	1,382,478	1,382,478	1,392,478	1,392,478	1,392,478	84,758	
5.	Net Investment (Lines 2 + 3 + 4)	\$5,231,841	5,944,436	7,532,898	9,098,417	10,179,894	10,406,882	10,456,707	10,448,231	10,424,717	10,411,203	10,387,689	10,364,175	10,340,661	
6.	Average Net Investment		5,588,139	6,738,667	8,315,658	9,639,156	10,293,388	10,431,795	10,452,469	10,436,474	10,417,960	10,399,446	10,375,932	10,352,418	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Ta	axes (B)	36,556	44,083	54,399	63,057	67,337	68,242	68,377	68,273	68,152	68,031	67,877	67,723	\$742,107
	 b. Debt Component Grossed Up For Tax 	xes (C)	10,376	12,512	15,440	17,898	19,112	19,369	19,408	19,378	19,344	19,309	19,266	19,222	210,634
	Investment Expenses														
٥.	a. Depreciation (D)		8,078	8,078	8,078	8,510	8.510	23,324	23,480	23,514	23,514	23,514	23,514	23,514	205,628
	b. Amortization		0,070	0,070	0,070	0,010	0,010	20,024	20,400	20,014	20,0.4	20,014	0	0	0
	c. Dismantlement		0	0	0	0	0	0	Ō	0	0	ō	0	0	0
	d. Property Taxes		ō	0	Ō	0	0	0	0	ō	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
										444.405			440.057	440.450	4.450.000
9.	Total System Recoverable Expenses (Lir		55,010	64,673	77,917	89,465	94,959	110,935	111,265	111,165	111,010	110,854	110,657 110,657	110,459	1,158,369 1,158,369
	a. Recoverable Costs Allocated to Energ		55,010	64,673 0	77,917	89,465 0	94,959 0	110,935	111,265 0	111,165 0	111,010	110,854 0	110,657	110,459 0	1,150,509
	b. Recoverable Costs Allocated to Dema	and	0	U	0	U	U	U	U	U	U	U	0	U	U
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Cost	e (E)	55,010	64,673	77,917	89,465	94,959	110,935	111,265	111,165	111,010	110,854	110,657	110,459	1,158,369
13.	Retail Demand-Related Recoverable Cost		33,010	04,073	0,,917	03,400	94,939	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (L		\$55,010	\$64,673	\$77,917	\$89,465	\$94,959	\$110,935	\$111,265	\$111,165	\$111,010	\$110,854	\$110,657	\$110,459	\$1,158,369
	(-		4,	,			,								

- Notes:

 (A) Applicable depreciable base for Big Bend and Polk; accounts 312.44 (\$4,233,086), 315.40 (\$1,169,053), 315.41 (\$128,600), 315.42(\$128,600), 312.46 (\$1,288,155), 312.45 (\$2,329,650), 315.45 (\$557,728) and 315.46 (\$823,287)
 - (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002). (C) Line 6 x 2.2281% x 1/12.

 - (D) Applicable depreciation rate is 3.0%, 3.7%, 3.5%, 3.3%, 3.3%, 2.5%, 3.1%, and 3.5%
 - (E) Line 9a x Line 10
 - (F) Line 9b x Line 11

<u>Tampa Electric Company</u> Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2014 to December 2014

Form 42-4P Page 24 of 25

For Project: SO₂ Emissions Allowances (in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Purchases/Transfers		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Sales/Transfers		0	0	0	0	0	0	0	0	0	0	0	0	**
	c. Auction Proceeds/Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Working Capital Balance										_	_	_	_	
	a. FERC 158.1 Allowance Inventory	\$0	0	0	0	0	0	0	0	0	0	0	0	0	
	 b. FERC 158.2 Allowances Withheld 	0	0	0	0	0	0	0	0	0	0	0	0	0	
	c. FERC 182.3 Other Regl. Assets - Losses	0	0	0	0	0	0	0	0	0	0	0	0	0	
	 d. FERC 254.01 Regulatory Liabilities - Gains 	(36,626)	(36,544)	(36,482)	(36,412)	(36,358)	(36,296)	(36,214)	(36,130)	(36,046)	(35,979)	(35,911)	(35,844)	(35,770)	
3.	Total Working Capital Balance	(\$36,626)	(36,544)	(36,482)	(36,412)	(36,358)	(36,296)	(36,214)	(36,130)	(36,046)	(35,979)	(35,911)	(35,844)	(35,770)	
4.	Average Net Working Capital Balance		(\$36,585)	(\$36,513)	(\$36,447)	(\$36,385)	(\$36,327)	(\$36,255)	(\$36,172)	(\$36,088)	(\$36,013)	(\$35,945)	(\$35,878)	(\$35,807)	
5.	Return on Average Net Working Capital Balance														
-	a. Equity Component Grossed Up For Taxes (A)		(239)	(239)	(238)	(238)	(238)	(237)	(237)	(236)	(236)	(235)	(235)	(234)	(2,842)
	b. Debt Component Grossed Up For Taxes (B)		(68)	(68)	(68)	(68)	(67)	(67)	(67)	(67)	(67)	(67)	(67)	(66)	(807)
6.	Total Return Component	-	(307)	(307)	(306)	(306)	(305)	(304)	(304)	(303)	(303)	(302)	(302)	(300)	(3,649)
			, ,	, ,	, , ,	(/	,,	(/	(/	(/	(,	(/	(00-)	(00-)	(0,0.0)
7.	Expenses:														
	a. Gains		0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Losses		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. SO₂ Allowance Expense	_	2,218	2,168	2,230	2,286	2,308	2,258	2,286	2,276	2,263	2,312	2,263	2,226	27,114
8.	Net Expenses (D)		2,218	2,168	2,230	2,286	2,308	2,258	2,286	2,276	2,283	2,312	2,263	2,226	27,114
9.	Total System Recoverable Expenses (Lines 6 + 8)		1,911	1,861	1,924	1,980	2,003	1,954	1,982	1,973	1,980	2,010	1,961	1,926	23,465
	a. Recoverable Costs Allocated to Energy		1,911	1,861	1,924	1,980	2,003	1,954	1,982	1,973	1,980	2,010	1,961	1,926	23,465
	 Recoverable Costs Allocated to Demand 		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
11.	Demand Jurisdictional Factor		1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	1.0000000	
12.	Retail Energy-Related Recoverable Costs (E)		1,911	1,861	1,924	1,980	2,003	1,954	1,982	1,973	1,980	2,010	1,961	1,926	23,465
13.	Retail Demand-Related Recoverable Costs (F)		0	0	0	0	0	0	0	0	0	2,0.0	0	0	20,400
14.	Total Juris. Recoverable Costs (Lines 12 + 13)		\$1,911	\$1,881	\$1,924	\$1,980	\$2,003	\$1,954	\$1,982	\$1,973	\$1,980	\$2,010	\$1,961	\$1,926	\$23,465

Notes: (A) (B)

- Line 4 \times 7.8501% \times 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002). Line 4 \times 2.2281% \times 1/12.
- Line 6 is reported on Schedule 3P. Line 8 is reported on Schedule 2P. (C)
- (D)
- (E) (F) Line 9a x Line 10 Line 9b x Line 11

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



Tampa Electric Company
Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2014 to December 2014

Form 42-4P Page 25 of 25

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

Investments	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
b. Clearings to Plant c. Retirements d. Other - AFUDC (exci from CWIP) 926,549 1,417,693 4,932,674 1,310,000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.	Investments														
C. Relifements d. O'Ber-AFUDC (exxi from CWIP) g26,549 1,417,693 d,932,674 d,131,000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				\$0	\$0	\$0	\$0	\$4,111,681	\$260,000	\$180,000	\$79,997	\$0	\$0	\$0	\$0	\$4,631,678
d. Other - AFUDC (excl from CWIP) 26,549 1,417,693 4,932,674 1,310,000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 \$8,586,916 2. Plant-in-Service/Depreciation Base (A) \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0				0	0	0	0	20,420,306	260,000	180,000	79,997	0	0	0	0	\$20,940,303
2. Plant-in-Service/Depreciation Base (A) \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0				0	•	0	0	0	0	0	0	0	0	0	0	
3. Lass: Accumulated Depreciation 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		d. Other - AFUDC (excl from CWIP)		926,549	1,417,693	4,932,674	1,310,000	0	0	0	0	0	0	0	0	\$8,586,916
4. CWIP - Non-Interest Bearing 0 0 0 0 0 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	\$20,420,306	\$20,680,306	\$20,860,306	\$20,940,303	\$20,940,303	\$20,940,303	\$20,940,303	\$20,940,303	
5. Net Investment (Lines 2 + 3 + 4) \$0 0 0 0 0 20,420,306 20,617,343 20,733,579 20,749,257 20,684,691 20,620,125 20,555,559 20,490,993 6. Average Net Investment	3.	Less: Accumulated Depreciation	0	0	0	0	0	0	(62,963)	(126,727)	(191,046)	(255,612)	(320,178)	(384,744)	(449,310)	
6. Average Net Investment 6. Average Net Investment 7. Return on Average Net Investment a. Equity Component Grossed Up For Taxes (B) 6. Debt Component Grossed Up For Taxes (C) 7. Return on Average Net Investment a. Equity Component Grossed Up For Taxes (C) 7. Return on Average Net Investment a. Equity Component Grossed Up For Taxes (C) 8. Investment Expenses a. Depreciation (D) 6. Amortization 7. Return on Average Net Investment 8. Investment Expenses 9. Amortization 9. O O O O O O O O O O O O O O O O O O O	4.			0	0	0	0	0	0	0	0	0	0	0	o o	
7. Return on Average Net Investment a. Equity Component Grossed Up For Taxes (B) b. Debt Component Grossed Up For Taxes (C) 0 0 0 0 0 18,958 38,098 38,389 38,512 36,465 38,346 38,246 38,346 38,246 38,346 38,226 38,107 287,102 8. Investment Expenses a. Depreciation (D) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5.	Net Investment (Lines 2 + 3 + 4)	\$0	0	0	0	0	20,420,306	20,617,343	20,733,579	20,749,257	20,684,691	20,620,125	20,555,559	20,490,993	
a. Equity Component Grossed Up For Taxes (B) 0 0 0 0 66,792 134,229 135,254 135,685 135,525 135,103 134,681 134,258 \$1,011,527 b. Debt Component Grossed Up For Taxes (C) 0 0 0 0 18,958 38,098 38,098 38,389 38,512 38,466 38,346 38,226 38,107 287,102 8. Investment Expenses a. Depreciation (D) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6.	Average Net Investment		0	0	0	0	10,210,153	20,518,825	20,675,461	20,741,418	20,716,974	20,652,408	20,587,842	20,523,276	
b. Debt Component Grossed Up For Taxes (C) 0 0 0 18,958 38,098 38,389 38,512 38,466 38,346 38,226 38,107 287,102 8. Investment Expenses a. Depreciation (D) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7.	7. Return on Average Net Investment														
8. Investment Expenses a. Depreciation (D) b. Amortization 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		a. Equity Component Grossed Up For Ta	xes (B)	0	0	0	0	66,792	134,229	135,254	135,685	135,525	135,103	134,681	134,258	\$1,011,527
a. Depreciation (D) b. Amortization 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		b. Debt Component Grossed Up For Taxe	es (C)	0	0	0	0	18,958	38,098	38,389	38,512	38,466	38,346	38,226	38,107	287,102
a. Depreciation (D) b. Amortization 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8.	Investment Expenses														
b. Amortization				0	0	0	0	0	62,963	63,764	64,319	64,566	64,566	64.566	64,566	449.310
d. Property Taxes		b. Amortization		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 0 0 0 0 0				0	0	0	0	0	0	0	0	0	0	0	0	0
9. Total System Recoverable Expenses (Lines 7 + 8) 0 0 0 0 0 85,750 235,290 237,407 238,516 238,557 238,015 237,473 236,931 1,747,939 a. Recoverable Costs Allocated to Energy 0 0 0 0 85,750 235,290 237,407 238,516 238,557 238,015 237,473 236,931 1,747,939 b. Recoverable Costs Allocated to Demand 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				0	•	0	0	0	0	0	0	0	0	0	0	0
a. Recoverable Costs Allocated to Energy b. Recoverable Costs Allocated to Demand 0 0 0 0 0 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
a. Recoverable Costs Allocated to Energy b. Recoverable Costs Allocated to Demand 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9.	Total System Recoverable Expenses (Line	es 7 + 8)	0	0	0	0	85,750	235,290	237,407	238,516	238,557	238.015	237.473	236.931	1,747,939
10. Energy Jurisdictional Factor 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.0000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.0000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.0000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.0000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.		a. Recoverable Costs Allocated to Energy	y ´	0	0	0	0	85,750		237,407	238,516			237,473		1,747,939
11. Demand Jurisdictional Factor 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.0000000 1.0000000 1.00		 Recoverable Costs Allocated to Deman 	nd	0	0	0	0	0	0	0	0	0	0	0	0	0
11. Demand Jurisdictional Factor 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.0000000 1.0000000 1.00	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	
13. Retail Demand-Related Recoverable Costs (F) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																
13. Retail Demand-Related Recoverable Costs (F) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	42	Potoit Foograp Related Book workly Costs	(5)					06.760	005 000	007.407	000 546	000 557	000.045	007.470	000 004	4 747 000
				0	-	0	_							,		1,747,939
	14.			\$0	\$0	\$0	\$0	\$85,750	\$235,290	\$237,407	\$238,516	\$238,557	\$238,015	\$237,473	\$236,931	\$1,747,939

Notes:

- (A) Applicable depreciable base for Big Bend; accounts 315.40
- (B) Line 6 x 7.8501% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.628002). (C) Line 6 x 2.2281% x 1/12.
- (D) Applicable depreciation rate is 3.7%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

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 2013

through December 2013, is \$1,068,587 compared to the original projection of

\$1,123,304 resulting in an insignificant variance.

The actual/estimated O&M expense for the period January 2013 through

December 2013 is \$5,351,151 compared to the original projection of

\$5,526,100 resulting in an insignificant variance.

Progress Summary: The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014, is expected to be \$1,315,576.

Estimated O&M costs for the period January 2014 through December 2014 are

projected to be \$5,624,000.

Project Title:

Big Bend Units 1 & 2 Flue Gas Conditioning

Project Description:

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

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

Project Accomplishments:

Fiscal Expenditures:

The actual/estimated depreciation plus return for the period January 2013 through December 2013 is \$370,864 compared to the original projection of \$375,431 resulting in an insignificant variance.

The actual/estimated O&M expense for this project for the period January 2013 through December 2013 is \$0 and did not vary from the original projection.

Progress Summary:

The project is complete and in-service.

Projections:

Estimated depreciation plus return for the period January 2014 through December 2014 is projected to be \$346,517.

There are no estimated O&M costs projected for the period of January 2014

through December 2014.

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 SO₂, NO_x and volumetric gas flow out of the stack. The project consisted of monitors, a CEM building, the CEMs control and power cables to supply a complete system.

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

Project Accomplishment:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2013

through December 2013 is \$74,201 compared to the original projection of

\$75,414 resulting in an insignificant variance.

Progress Summary: The project is complete and in-service.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is projected to be \$70,157

Tampa Electric Company Environmental Cost Recovery Clause January 2014 through December 2014

Description and Progress Report for Environmental Compliance Activities and Projects

Project Title:

Big Bend Unit 1 Classifier Replacement

Project Description:

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

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2013

through December 2013 is \$118,055 compared to the original projection of

\$119,754 resulting in an insignificant variance.

Progress Summary: The project was placed in-service December 1998.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is projected to be \$110,980.

Tampa Electric Company Environmental Cost Recovery Clause January 2014 through December 2014 Description and Progress Report for

Environmental Compliance Activities and Projects

Project Title:

Big Bend Unit 2 Classifier Replacement

Project Description:

The boiler modifications at Big Bend Unit 2 are part of Tampa Electric's NO_X compliance strategy for Phase II of the CAAA. The classifier replacements will 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, will enable a uniform, staged combustion. As a result, firing systems will operate at lower NO_X levels.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2013

through December 2013 is \$85,099 compared to the original projection of

\$86,368 resulting in an insignificant variance.

Progress Summary: The project was placed in-service May 1998.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is projected to be \$80,115.

Project Title:

Big Bend Units 1 & 2 FGD

Project Description:

The Big Bend Units 1 & 2 FGD system consists of equipment capable of removing SO₂ from the flue gas generated by the combustion of coal. The FGD was installed in order to comply with Phase II of the CAAA. Compliance with Phase II is required by January 1, 2000. The CAAA impose SO₂ 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.

In Docket No. 980693-EI, Order No. PSC-99-0075-FOF-EI, issued January 11, 1999, the Commission found that the FGD project was the most cost-effective alternative for compliance with the SO₂ requirements of Phase II of the CAAA.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2013

through December 2013 is \$8,026,313 compared to the original projection of

\$8,128,926 resulting in an insignificant variance.

The actual/estimated O&M expense for the period January 2013 through December 2013 is \$10,860,818 as compared to the original estimate of

\$11,080,000 resulting in an insignificant variance.

Progress Summary: The project was placed in-service in December 1999.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is expected to be \$7,943,512.

Estimated O&M costs for the period January 2014 through December 2014 are

projected to be \$10,965,200.

Project Title:

Big Bend Section 114 Mercury Testing Platform

Project Description:

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

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

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

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2013

through December 2013, is \$12,265 compared to the original projection of

\$12,493 resulting in an insignificant variance.

Progress Summary: The project was placed in-service in December 1999 and completed in May

2000.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is expected to be \$11,677.

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 SO₂ removal efficiency and operations of the Big Bend Units 1, 2 and 3 FGD systems. Tampa Electric performed activities in three key areas to improve the performance and reliability of the Big Bend Units 1, 2 and 3 FGD systems. The majority of the improvements required on the Unit 3 tower module included the tower piping, nozzle and internal improvements, ductwork improvements, electrical system reliability improvements, tower control improvements, dibasic acid system improvements, booster fan reliability, absorber system improvements, quencher system improvements, and tower demister improvements. Big Bend Units 1 and 2 FGD system improvements included additional preventative maintenance, oxidation air control improvements, and tower water, air reagent and start-up piping upgrades. In order to ensure reliability of the FGD systems, improvements to the common limestone supply, gypsum de-watering stack reliability and wastewater treatment plant were also being performed.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2013

through December 2013 is \$2,137,338 compared to the original projection of

\$2,179,242 resulting in an insignificant variance.

Progress Summary: The project was placed in-service in January 2002.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is expected to be \$2,039,932.

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 has identified improvements that are 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 has incurred costs associated with the recommendations of the BOP study and the BACT analysis in 2001 and will continue to experience O&M and capital expenditures during 2002 and beyond.

Project Accomplishments:

Fiscal Expenditures:

The actual/estimated depreciation plus return for the period January 2013 through December 2013 is \$1,682,814 as compared to the original projection of \$1,947,674 resulting in a variance of 13.6 percent due to the construction contract and equipment packages being less than originally projected.

The actual/estimated O&M expense the period January 2013 through December 2013 is \$878,769 as compared to the original projection of \$390,000 resulting in a variance of 125.3 percent. This variance is due to an increase in the scope of daily inspections, resulting in the addition of two additional BOP contractors.

Progress Summary:

This project was placed in-service July 2005.

Projections:

Estimated depreciation plus return for the period January 2014 through December 2014 is expected to be \$1,956,219.

Estimated O&M costs for the period January 2014 through December 2014 are

projected to be \$900,000.

Project Title:

Big Bend NO_x Emissions Reduction

Project Description:

In order to meet the requirements of the FDEP Consent Final Judgment and the EPA Consent Decree, Tampa Electric is required to spend up to \$3 million with the goal to reduce NO_x emissions at Big Bend Station. The Consent Decree requires that by December 31, 2002, the company must achieve at least a 30 percent reduction beyond 1998 levels for Big Bend Units 1 and 2 and at least a 15 percent reduction in NO_x emissions from Big Bend Unit 3. Tampa Electric has identified projects that are the first steps to decrease NO_x emissions in these units such as burner and windbox modifications and the installation of a neural network system on each of the Big Bend units.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2013

through December 2013 is \$703,373 as compared to the original projection of

\$718,705 resulting in an insignificant variance.

The actual/estimated O&M expense the period January 2013 through December 2013 is \$360,691 as compared to the original projection of

\$375,000 resulting in an insignificant variance.

Progress Summary: The project was placed in-service January 2006.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is expected to be \$675,558.

Estimated O&M costs for the period January 2014 through December 2014 are

projected to be \$375,000.

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 2013

through December 2013 is \$47,965 compared to the original projection of

\$48,777 resulting in an insignificant variance.

Progress Summary: The project was placed in-service October 1998.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is projected to be \$45,426.

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

Project Description:

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

The scope of work for this project included cleaning and inspecting the tank in accordance with API 653 specifications, coating the internal floor plus 30 inches up the tank wall, installing an 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 2013

through December 2013 is \$78,891 compared to the original projection of

\$80,227 resulting in an insignificant variance.

Progress Summary: The project was placed in-service December 1998.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is projected to be \$74,713.

Project Title:

SO₂ 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 SO₂ 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 SO₂ 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 SO₂) equal to the number of tons of SO₂ 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 2013 through December 2013 is (\$3,841) compared to the original projection of (\$3,918) resulting in an insignificant variance.

The actual/estimated O&M for the period January 2013 through December 2013 is \$13,197 compared to the original projection of \$22,980 resulting in a variance of 42.6 percent. The variance is driven by less cogeneration purchases than expected and the application of a lower emission allowance rate than originally projected.

Progress Summary:

SO₂ emission allowances are being used by Tampa Electric to meet compliance standards for Phase I of the CAAA.

Project Projections:

Estimated return on average net working capital for the period January 2014 through December 2014 is projected to be (\$3,649).

Estimated O&M costs for the period January 2014 through December 2014 are projected to be \$27,114.

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, Hookers Point, Polk Power and Gannon Stations are affected by this rule.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated O&M expense for the period January 2013 through

December 2013 is \$34,500 compared to the original projection of \$34,500

representing no variance.

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

Projections: Estimated O&M costs for the period January 2014 through December 2014 are

projected to be \$34,500.

Project Title:

Gannon Thermal Discharge Study

Project Description:

This project is 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 is required to perform a 316(a) determination for Gannon Station to ensure the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife with in the primary area of study. The project will have two facets: 1) develop the plan of study and identify the thermal plume, and 2) implement the plan of study through appropriate sampling to make the determination if any adverse impacts are occurring.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated O&M expense for the period January 2013 through

December 2013 is \$0 compared to the original projection of \$12,500, which represents a variance of 100 percent. The variance is due to the Florida FDEP

not requiring a demonstration study this permit cycle.

Progress Summary: This project was approved by the Commission in Docket No. 010593-EI on

September 4, 2001.

Projections: There are no estimated O&M costs projected for the period of January 2014

through December 2014.

Project Title: Polk NO_x Emissions Reduction

Project Description:

This project is designed to meet a lower NO_x emissions limit established by the FDEP for Polk Unit 1 by July 1, 2005. The lower limit of 15 parts per million by volume dry basis at 15 percent O_2 is specified in FDEP Permit No. PSD-FL-194F issued February 5, 2002. The project will consist 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 2013

through December 2013 is \$163,277 as compared to the original projection of

\$166,164 resulting in an insignificant variance.

The actual/estimated O&M for the period January 2013 through December 2013 is \$15,857 compared to the original projection of \$28,500, which represents a variance of 44.4 percent. The variance is due an extended outage at the Polk Power Station in addition to reduction in water costs and maintenance associated with the saturator that is used to reduce NO_x

emissions.

Progress Summary: The project was placed in-service January 2005.

Project Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is projected to be \$154,965.

Estimated O&M costs for the period January 2014 through December 2014 are

projected to be \$29,370.

Project Title:

Bayside SCR Consumables

Project Description:

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

Project Accomplishments:

Fiscal Expenditures: The actual/estimated O&M expense for the period January 2013 through

December 2013 is \$158,201 compared to the original projection of \$106,000 resulting in a variance of 49.2 percent due to an increase in ammonia cost attributed to an increase in the cost per ton of consumable ammonia as well as

an overall increase in ammonia consumption.

Progress Summary: This project was approved by the Commission in Docket No. 021255-El, Order

No. PSC-03-0469-PAA-EI, issued April 4, 2003. As an O&M project,

expenses are ongoing annually.

Projections: Estimated O&M costs for the period January 2014 through December 2014 are

projected to be \$150,000.

Tampa Electric Company Environmental Cost Recovery Clause January 2014 through December 2014

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

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2013

through December 2013 is \$283,329 compared to the original projection of

\$288,755 resulting in an insignificant variance.

The actual/estimated O&M expense for this project for the period January 2013 through December 2013 is \$0 and did not vary from the original

projection.

Progress Summary: The project was placed in-service November 2004.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is projected to be \$270,062.

There are no estimated O&M costs projected for the period of January 2014

through December 2014.

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 is required to make additional reductions of NO_x emissions at Big Bend Station on a per unit basis at prescribed times from 2013 through 2013. Based on a comprehensive study, Tampa Electric has declared the future fuel for Big Bend Station to be coal which will necessitate the installation of cost-effective SCR technology on the generating units to meet NO_x emissions requirements. Therefore, this project is a necessary precursor to an SCR system designed to reduce inlet NO_x concentrations to the SCR system thereby mitigating overall capital and O&M costs. The Big Bend Unit 1 Pre-SCR technologies include a neural network system, secondary air controls and windbox modifications.

Project Accomplishments:

Fiscal Expenditures:

The actual/estimated depreciation plus return for the period January 2013 through December 2013 is \$198,560 compared to the original projection of \$202,030 resulting in an insignificant variance.

The actual/estimated O&M expense for this project for the period January 2013 through December 2013 is \$0 and did not vary from the original projection.

Progress Summary:

This project was approved by the Commission in Docket No. 040750-El, Order No. PSC-04-1080-CO-El, issued November 4, 2004.

Projections:

Estimated depreciation plus return for the period January 2014 through December 2014 is projected to be \$188,349.

There are no estimated O&M costs projected for the period of January 2014 through December 2014.

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 is required to make additional reductions of NO_x emissions at Big Bend Station on a per unit basis at prescribed times from 2013through 2013. Based on a comprehensive study, Tampa Electric has declared the future fuel for Big Bend Station to be coal which will necessitate the installation of cost-effective SCR technology on the generating units to meet NO_x emissions requirements. Therefore, this project is a necessary precursor to an SCR system designed to reduce inlet NO_x concentrations to the SCR system thereby mitigating overall capital and O_x costs. The Big Bend Unit 2 Pre-SCR technologies include secondary air controls and windbox modifications.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2013

through December 2013 is \$188,069 compared to the original projection of

\$191,463 resulting in an insignificant variance.

The actual/estimated O&M expense for this project for the period January 2013 through December 2013 is \$0 and did not vary from the original

projection.

Progress Summary: This project was approved by the Commission in Docket No. 040750-El, Order

No. PSC-04-1080-CO-EI, issued November 4, 2004.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is projected to be \$178,697.

There are no estimated O&M costs projected for the period of January 2014

through December 2014.

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 is required to make additional reductions of NO_x emissions at Big Bend Station on a per unit basis at prescribed times from 2013 through 2013. Based on a comprehensive study, Tampa Electric has declared the future fuel for Big Bend Station to be coal, which will necessitate the installation of cost-effective SCR technology on the generating units to meet NO_x emissions requirements. Therefore, this project is a necessary precursor to an SCR system designed to reduce inlet NO_x concentrations to the SCR system thereby mitigating overall capital and O_x controls. The Big Bend Unit 3 Pre-SCR technologies include 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 2013 through December 2013 is \$334,009 compared to the original projection of \$340,269, resulting in an insignificant variance.

The actual/estimated O&M for the period January 2013 through December 2013 is \$177,672 compared to the original projection of \$0 resulting in a variance. This variance is due to unscheduled repairs to the blades associated with the Pre-SCR.

Progress Summary:

This project was approved by the Commission in Docket No. 040750-EI, Order No. PSC-04-1080-CO-EI, issued November 4, 2004.

Projections:

Estimated depreciation plus return for the period January 2014 through December 2014 is projected to be \$317,992.

There are no estimated O&M costs for the period January 2014 through December 2014.

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

Project Description:

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

Project Accomplishments:

Fiscal Expenditures: The actual/estimated O&M for the period January 2013 through December

2013 is \$0 compared to the original projection of \$60,000 resulting in a variance of 100 percent. This variance is due to EPA's postponement of the final rule until July 2013. As such, Tampa Electric delayed any additional work

related to same.

Progress Summary: This project was approved by the Commission in Docket No. 041300-EI, Order

No. PSC-05-0164-PAA-EI, issued February 10, 2005.

Projections: There are no estimated O&M costs for the period January 2014 through

December 2014.

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 is required to make additional reductions of NO_x emissions at Big Bend Station on a per unit basis at prescribed times from 2013 through 2013. Based on a comprehensive study, Tampa Electric has declared the future fuel for Big Bend Station to be coal, which will necessitate the installation of cost-effective SCR technology on the generating units to meet NO_x emissions requirements. This project is associated with the installation of an SCR system on Big Bend Unit 1 and is scheduled to go in-service April 2010.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2013

through December 2013 is \$11,128,309 compared to the original projection of

\$11,342,083, resulting in an insignificant variance.

The actual/estimated O&M for the period January 2013 through December

2013 is \$2,152,024 compared to the original projection of \$2,259,818

representing an insignificant variance.

Progress Summary: This project was approved by the Commission in Docket No. 041376-EI, Order

No. PSC-05-0616-CO-EI, issued June 3, 2005.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is projected to be \$10,765,892.

Estimated O&M costs for the period January 2014 through December 2014 are

projected to be \$2,407,142.

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 is required to make additional reductions of NO_x emissions at Big Bend Station on a per unit basis at prescribed times from 2013 through 2013. Based on a comprehensive study, Tampa Electric has declared the future fuel for Big Bend Station to be coal, which will necessitate the installation of cost-effective SCR technology on the generating units to meet NO_x emissions requirements. This project is associated with the installation of an SCR system on Big Bend Unit 2 and is scheduled to go in-service September 2009.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2013

through December 2013 is \$11,866,818 compared to the original projection of

\$12,121,742, resulting in an insignificant variance.

The actual/estimated O&M for the period January 2013 through December 2013 is \$2,393,825 compared to the original projection of \$2,506,409

representing an insignificant variance.

Progress Summary: This project was approved by the Commission in Docket No. 041376-EI, Order

No. PSC-05-0616-CO-EI, issued June 3, 2005.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is projected to be \$11,279,439.

Estimated O&M costs for the period January 2014 through December 2014 are

projected to be \$2,949,679.

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 is required to make additional reductions of NO_x emissions at Big Bend Station on a per unit basis at prescribed times from 2013 through 2013. Based on a comprehensive study, Tampa Electric has declared the future fuel for Big Bend Station to be coal which will necessitate the installation of cost-effective SCR technology on the generating units to meet NO_x emissions requirements. This project is associated with the installation of an SCR system on Big Bend Unit 3 and is scheduled to go in-service July 2008.

Project Accomplishments:

Fiscal Expenditures:

The actual/estimated depreciation plus return for the period January 2013 through December 2013 is \$9,788,121 compared to the original projection of \$9,976,698, resulting in an insignificant variance.

The actual/estimated O&M for the period January 2013 through December 2013 is \$1,637,077 compared to the original projection of \$1,548,628 resulting in a variance of 5.7 percent. This variance is due to consumption in ammonia for the SO₃ mitigation system being greater than projected. The ammonia is utilized in the SO₃ mitigation system to meet ongoing regulation requirements.

Progress Summary:

This project was approved by the Commission in Docket No. 041376-EI, Order

No. PSC-05-0616-CO-EI, issued June 3, 2005.

Projections:

Estimated depreciation plus return for the period January 2014 through

December 2014 is projected to be \$9,306,565.

Estimated O&M costs for the period January 2014 through December 2014 are

projected to be \$1,974,842.

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 is required to make additional reductions of NO_x emissions at Big Bend Station on a per unit basis at prescribed times from 2013 through 2013. Based on a comprehensive study, Tampa Electric has declared the future fuel for Big Bend Station to be coal which will necessitate the installation of cost-effective SCR technology on the generating units to meet NO_x emissions requirements. This project is associated with the installation of an SCR system on Big Bend Unit 4 and is scheduled to go in-service May 2007.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2013

through December 2013 is \$7,467,252 compared to the original projection of

\$7,497,418, resulting in an insignificant variance.

The actual/estimated O&M for the period January 2013 through December

2013 is \$967,725 compared to the original projection of \$1,041,076

representing an insignificant variance.

Progress Summary: This project was placed in-service in May 2007.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is projected to be \$7,175,949.

Estimated O&M costs for the period January 2014 through December 2014 are

projected to be \$1,141,275.

Project Title: Arsenic Groundwater Standard Program

Project Description:

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

Project Accomplishments:

Fiscal Expenditures: The actual/estimated O&M for the period January 2013 through December

2013 is \$303,050 compared to the original projection of \$667,000 resulting in a variance of 54.6 percent. The variance is due to FDEP delay in approval of

activity associated with projected work.

Progress Summary: In Docket No. 050683-EI, Order No. PSC-06-0138-PAA-EI, issued February

23, 2006, the Commission granted Tampa Electric cost recovery approval for

prudent costs associated with this project.

Projections: Estimated O&M costs for the period January 2014 through December 2014 are

projected to be \$422,000.

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 are 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 2013

through December 2013 is \$2,940,331 compared to the original projection of

\$3,079,486, resulting in an insignificant variance.

Progress Summary: In Docket No. 050598-El, Order No. PSC-06-0602-PAA-El, issued July 10,

2006, the Commission granted cost recovery approval for prudent costs

associated with this project.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is projected to be \$2,816,466.

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.

In Docket No. 120302-EI, Order No. PSC-13-0191-PAA-EI, issued May 6, 2013, the Commission granted cost recovery approval for prudent costs associated with this project.

Project Accomplishments:

Fiscal Expenditures:

The actual/estimated depreciation plus return for the period January 2013 through December 2013 is \$335,886 compared to the original projection of \$158,728, resulting in a variance of 111.6 percent. This variance is due to MATS not being an approved program at the time of the original projection. As such, the MATS costs include previously projected CAMR capital expenditures as well the purchase of a Mercury Spectrometer, which will be used to monitor mercury emissions.

The actual/estimated O&M for the period January 2013 through December 2013 is \$321,421 compared to the original projection of \$20,000 resulting in a variance of 1,507.1 percent. This variance is due to MATS not being an approved program at the time of the original projection. As such, O&M expenditures associated with this project pertain to mercury, hydrochloric acid and particulate matter testing as well as expenditures for the former CAMR O&M that includes umbilical mercury testing.

Progress Summary:

This project, in total, is expected to be placed in-service by April 2015.

Projections:

Estimated depreciation plus return for the period January 2014 through December 2014 is projected to be \$1,158,369.

Estimated O&M costs for the period January 2014 through December 2014 are projected to be \$218,500.

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 must begin collecting greenhouse gas emissions data effective January 1, 2010 to establish a baseline inventory to report to the EPA.

Project Accomplishments:

Fiscal Expenditures: The actual/estimated O&M for the period January 2013 through December

2013 is \$90,903 compared to the original projection of \$90,000, resulting in an

insignificant variance.

Progress Summary: Cost recovery was approved in Docket No. 090508-EI, Order No. PSC-10-

0157-PAA-EI, issued March 22, 2010.

Projections: Estimated O&M costs for the period January 2014 through December 2014 are

projected to be \$114,097.

Project Title:

Big Bend Gypsum Storage Facility

Project Description:

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

In Docket No. 110262-EI, Order No. PSC-12-0493-PAA-EI, issued September 26, 2012, the Commission granted cost recovery approval for prudent costs associated with this project.

Project Accomplishments:

Progress Summary: The project is to be placed in-service May 2014.

Projections: Estimated depreciation plus return for the period January 2014 through

December 2014 is projected to be \$1,747,939

Estimated O&M costs for the period January 2014 through December 2014 are

projected to be \$1,051,232.

Tampa Electric Company

Environmental Cost Recovery Clause (ECRC) Calculation of the Energy & Demand Allocation % By Rate Class January 2014 to December 2014

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Rate Class	Average 12 CP Load Factor at Meter (%)	Projected Sales at Meter (MWh)	Effective Sales at Secondary Level (MWh)	Projected Avg 12 CP at Meter (MW)	Demand Loss Expansion Factor	Energy Loss Expansion Factor	Projected Sales at Generation (MWh)	Projected Avg 12 CP at Generation (MW)		Percentage of 12 CP Demand at Generation (%)	12 CP & 25% Allocation Factor (%)
RS	54.87%	8,568,132	8,568,132	1,783	1.07880	1.05641	9,051,474	1,924	46.84%	55.53%	53.36%
GS, TS	59.77%	1,014,542	1,014,542	194	1.07880	1.05640	1,071,759	209	5.55%	6.03%	5.91%
GSD, SBF	75.55%	7,638,094	7,625,393	1,154	1.07454	1.05252	8,039,250	1,240	41.61%	35.79%	37.24%
IS	121.20%	912,924	896,947	86	1.03010	1.01750	928,901	89	4.81%	2.57%	3.13%
LS1	793.34%	218,515	218,515	3	1.07880	1.05641	230,842	3	1.19%	0.09%	0.37%
TOTAL *		18,352,207	18,323,529	3,220			19,322,226	3,465	100.00%	100.00%	100.00%

- Notes: (1) Average 12 CP load factor based on 2013 Projected calendar data
 - (2) Projected MWh sales for the period January 2013 to December 2013
 - (3) Effective sales at secondary level for the period January 2013 to December 2013.
 - (4) Column 2 / (Column 1 x 8760)
 - (5) Based on 2012 projected demand losses.
 - (6) Based on 2012 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 0.25 + Column 10 x 0.75

^{*} Totals on this schedule may not foot due to rounding

76

Tampa Electric Company

Environmental Cost Recovery Clause (ECRC)
Calculation of the Energy & Demand Allocation % By Rate Class
January 2014 to December 2014

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rate Class	Percentage of MWh Sales at Generation (%)	12 CP & 25% Allocation Factor (%)	Energy- Related Costs (\$)	Demand- Related Costs (\$)	Total Environmental Costs (\$)	Projected Sales at Meter (MWh)	Effective Sales at Secondary Level (MWh)	Environmental Cost Recovery Factors (¢/kWh)
RS	46.84%	53.36%	42,320,116	312,665	42,632,781	8,568,132	8,568,132	0.498
GS, TS	5.55%	5.91%	5,014,446	34,630	5,049,076	1,014,542	1,014,542	0.498
GSD, SBF Secondary Primary Transmission	41.61%	37.24%	37,594,791	218,209	37,813,000	7,638,094	7,625,393	0.496 0.491 0.486
IS Secondary Primary Transmission	4.81%	3.13%	4,345,853	18,340	4,364,193	912,924	896,947	0.487 0.482 0.477
LS1	1.19%	0.37%	1,075,169	2,168	1,077,337	218,515	218,515	0.493
TOTAL *	100.00%	100.00%	90,350,376	585,953	90,936,329	18,352,207	18,323,529	0.496

^{*} 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

Form 42-8P

Tampa Electric Company

Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount

January 2014 to December 2014

Calculation of Revenue Requirement Rate of Return (In Dollars)

		(1)	(2)	(3)	(4)	
		risdictional Rate Base		Cost	Weighted Cost	
		ial May 2013 ital Structure	Ratio	Rate	Rate	
		(\$000)	%	%	%	
Long Term Debt	\$	1,425,239	37.00%	5.78%	2.14%	
Short Term Debt		0	0.00%	0.66%	0.00%	
Preferred Stock		0	0.00%	0.00%	0.00%	
Customer Deposits		106,560	2.77%	2.91%	0.08%	
Common Equity		1,647,409	42.77%	11.25%	4.81%	
Deferred ITC - Weighted Cost		8,381	0.22%	8.71%	0.02%	
Accumulated Deferred Income Taxes Zero Cost ITCs	ı	664,214	<u>17.24%</u>	0.00%	0.00%	
Total	\$	3.851.803	100.00%		<u>7.05%</u>	
ITC split between Debt and Equity:						
Long Term Debt	\$	1,425,239	L	ong Term De	ebt	46.38%
Short Term Debt		0	S	hort Term D	ebt	0.00%
Equity - Preferred		0	E	quity - Prefe	rred	0.00%
Equity - Common		1,647,409	E	quity - Comr	non	<u>53.62%</u>
Total	<u>\$</u>	3.072.648		Total		100.00%

Deferred ITC - Weighted Cost:

Debt = .0239% * 46.04%	0.0089%
Equity = .0239% * 53.96%	0.0103%
Weighted Cost	0.0192%

Total Equity Cost Rate:

Preferred Stock	0.0000%
Common Equity	4.8116%
Deferred ITC - Weighted Cost	<u>0.0103%</u>
	4.8219%
Times Tax Multiplier	1.628002
Total Equity Component	<u>7.8501%</u>

Total Debt Cost Rate:

Long Term Debt	2.1386%
Short Term Debt	0.0000%
Customer Deposits	0.0806%
Deferred ITC - Weighted Cost	0.0089%
Total Debt Component	2.2281%

10.0782%

Notes:

Column (1) - From WACC Stipulation & Settlement Agreement Dated July 17, 2012

Column (2) - Column (1) / Total Column (1)

Column (3) - From WACC Stipulation & Settlement Agreement Dated July 17, 2012

Column (4) - Column (2) x Column (3)

Tampa Electric Company

Environmental Cost Recovery Clause (ECRC) Calculation of the Energy & Demand Allocation % By Rate Class January 2014 to December 2014

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Rate Class	Average 12 CP Load Factor at Meter (%)	Projected Sales at Meter (MWh)	Effective Sales at Secondary Level (MWh)	Projected Avg 12 CP at Meter (MW)	Demand Loss Expansion Factor	Energy Loss Expansion Factor	Projected Sales at Generation (MWh)	Projected Avg 12 CP at Generation (MW)	MWh Sales	12 CP Demand	12 CP & 50% Allocation Factor (%)
RS	54.87%	8,568,132	8,568,132	1,783	1.07880	1.05641	9,051,474	1,924	46.84%	55.53%	51.19%
GS, TS	59.77%	1,014,542	1,014,542	194	1.07880	1.05640	1,071,759	209	5.55%	6.03%	5.79%
GSD, SBF, IS	78.71%	8,551,018	8,522,340	1,240	1.07146	1.04897	8,969,748	1,329	46.42%	38.35%	42.38%
LS1	793.34%	218,515	218,515	3	1.07880	1.05641	230,842	3	1.19%	0.09%	0.64%
TOTAL *		18,352,207	18,323,529	3,220			19,323,823	3,465	100.00%	100.00%	100.00%

- Notes: (1) Average 12 CP load factor based on 2013 Projected calendar data
 - (2) Projected MWh sales for the period January 2013 to December 2013
 - (3) Effective sales at secondary level for the period January 2013 to December 2013.
 - (4) Column 2 / (Column 1 x 8760)
 - (5) Based on 2012 projected demand losses.
 - (6) Based on 2012 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 0.50 + Column 10 x 0.50

^{*} Totals on this schedule may not foot due to rounding

Tampa Electric Company

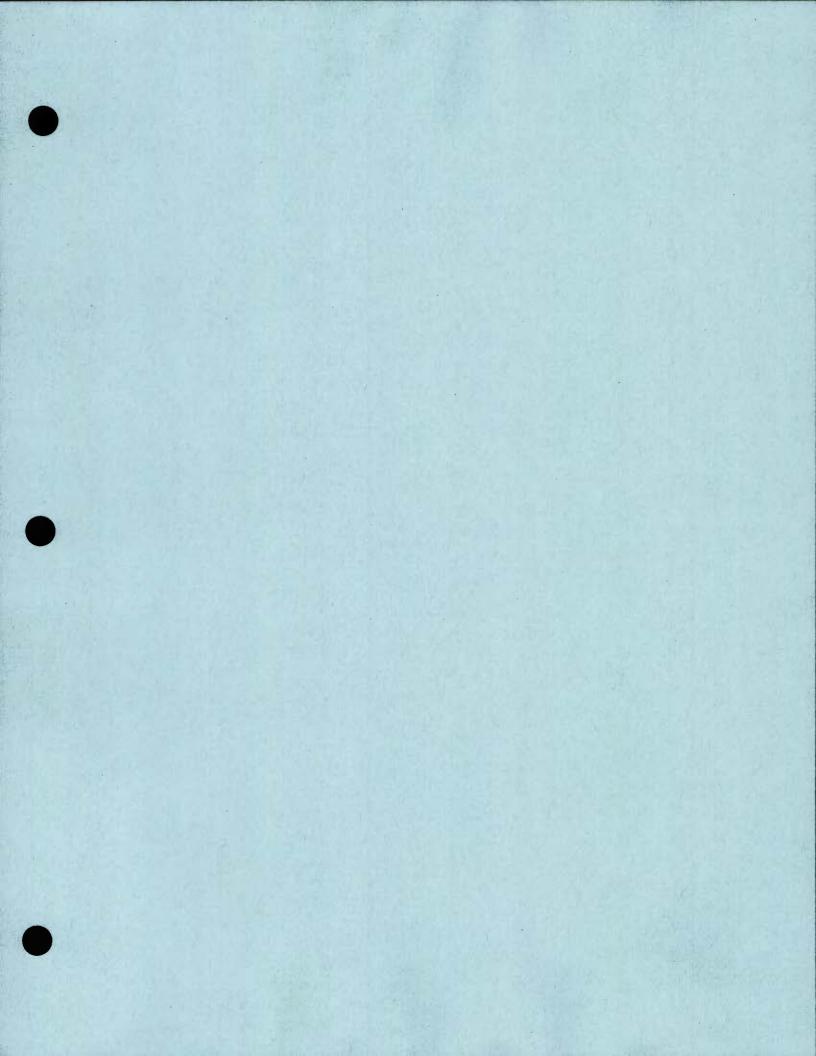
Environmental Cost Recovery Clause (ECRC) Calculation of the Energy & Demand Allocation % By Rate Class January 2014 to December 2014

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rate Class	Percentage of MWh Sales at Generation (%)	12 CP & 50% Allocation Factor (%)	Energy- Related Costs (\$)	Demand- Related Costs (\$)	Total Environmental Costs (\$)	Projected Sales at Meter (MWh)	Effective Sales at Secondary Level (MWh)	Environmental Cost Recovery Factors (¢/kWh)
RS	46.84%	51.19%	42,320,116	299,949	42,620,065	8,568,132	8,568,132	0.497
GS, TS	5.55%	5.79%	5,014,446	33,927	5,048,373	1,014,542	1,014,542	0.498
GSD, SBF , IS Secondary Primary Transmission	46.42%	42.38%	41,940,645	248,327	42,188,972	8,551,018	8,522,340	0.495 0.490 0.485
LS1	1.19%	0.64%	1,075,169	3,750	1,078,919	218,515	218,515	0.494
TOTAL*	100.00%	100.00%	90,350,376	585,953	90,936,329	18,352,207	18,323,529	0.496

^{*} 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





BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 130007-EI

ENVIRONMENTAL COST RECOVERY FACTORS

PROJECTIONS

JANUARY 2014 THROUGH DECEMBER 2014

TESTIMONY

OF

PAUL L. CARPINONE

FILED: AUGUST 30, 2013

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION PREPARED DIRECT TESTIMONY

OF

PAUL CARPINONE

5

6

1

3

4

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

7

8

9

10

11

12

A. My name is Paul L. Carpinone. My business address is 702

North Franklin Street, Tampa, Florida 33602. I am

employed by Tampa Electric Company ("Tampa Electric" or

"company") as Director, Environmental Health & Safety in

the Environmental Health and Safety Department.

13

14

15

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

16

17

18

19

20

21

22

23

24

25

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

11

12

10

1

2

3

5

6

7

8

9

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

13

14

15

16

17

18

19

20

21

22

23

24

25

The purpose of my testimony is to demonstrate that the Α. activities for which Tampa Electric seeks cost recovery through the Environmental Cost Recovery Clause ("ECRC") for the January 2014 through December 2014 projection period are activities necessary for the company to comply with various environmental requirements. Specifically, I will describe the ongoing activities that are associated with the Consent Final Judgment ("CFJ") entered into with Protection Environmental the Florida Department of ("FDEP") and the Consent Decree ("CD") lodged with the U.S. Environmental Protection Agency ("EPA") Department of Justice. I will also discuss other programs

previously approved by the Commission for recovery through the ECRC.

Q. Please provide an overview of the ongoing environmental compliance requirements that are the result of the CFJ and the CD ("the Orders").

A. The general ongoing requirements of the Orders provide for further reductions of sulfur dioxide (" SO_2 "), particulate matter ("PM") and nitrogen oxides (" NO_x ") emissions at Big Bend Station.

 \mathbf{Q} . What do the Orders require for SO_2 emission reductions?

A. The Orders require Tampa Electric to create a plan for optimizing the availability and removal efficiency of the flue gas desulfurization systems ("FGD" or "scrubbers"). The plans were submitted to the EPA in two phases, and were approved in July 2000, and February 2001, respectively.

Phase I required Tampa Electric to work scrubber outages around the clock and to utilize contract labor, when necessary, to speed the return of a malfunctioning scrubber to service. In addition, Phase I required Tampa

Electric to review all critical scrubber spare parts and increase the number and availability of spare parts to ensure a speedy return to service of a malfunctioning scrubber.

5

7

8

9

2

3

Phase II outlined capital projects Tampa Electric was to perform to upgrade each scrubber at Big Bend Station. It also addressed the use of environmental dispatching in the event of a scrubber outage. All of the SO_2 emission reduction projects have been completed.

11

12

10

Q. What do the Orders require for PM emission reductions?

13 14

15

16

17

18

19

20

21

22

23

24

25

Tampa Electric to develop Orders require Α. The implement a best operational practices ("BOP") study to electrostatic minimize PMemissions from each precipitator ("ESP") and complete and implement a best available control technology ("BACT") analysis of ESPs at Big Bend Station. The Orders also require the company to demonstrate the operation of a PM continuous emission monitoring system ("CEM") on Big Bend Units 3 and 4 and demonstrate the operation of a second PM CEM on The first PM CEM was installed in another Big Bend unit. February 2002. The installation and certification of the second PM CEM was completed in August 2009.

however, the first PM CEM did not perform satisfactorily and replacement was required. Installation and certification of the replacement was completed in December 2010.

5

7

1

3

4

Q. Please describe the Big Bend PM Minimization and Monitoring program activities and provide the estimated capital and O&M expenditures for the period of January 2014 through December 2014.

10

11

12

13

14

15

16

17

18

19

20

21

22

23

The Big Bend PM Minimization and Monitoring program was A. approved by the Commission in Docket No. 001186-EI, Order No. PSC-00-2104-PAA-EI, issued November 6, 2000. Order, the Commission found that the program met requirements for recovery through the ECRC. Electric had previously identified various projects to improve precipitator performance and reduce PM emissions as required by the Orders. In 2014, capital expenditures are anticipated to be \$1,868,700 for BOP equipment while O&M expenses associated with existing and recently installed BOP and BACT equipment and continued implementation of the BOP procedures are expected to be \$900,000.

24

25

Q. What do the Orders require for NO_x reductions?

The Orders require Tampa Electric to perform NO_x emission A. reduction projects on Big Bend Units 1, 2 Pursuant to an amendment, Big Bend Unit 4 projects were substituted for Big Bend Unit 3 projects. emission reductions use the 1998 NO_x emissions the baseline year for determining the level of reduction achieved. Tampa Electric was also required by the Orders innovative technologies demonstrate or additional NO_x technologies beyond those required by the early NO_x emission reduction activities.

1

2

3

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

- Q. Please describe the Big Bend NO_x Emission Reduction program activities and provide the estimated capital and O&M expenses for the period of January 2014 through December 2014.
- A. The Big Bend NO_x Emission Reduction program was approved by the Commission in Docket No. 001186-EI, Order No. PSC-00-2104-PAA-EI, issued November 6, 2000. In the Order, the Commission found that the program met the requirements for recovery through the ECRC. Tampa Electric does not anticipate any capital expenditures in 2014; however, the company will perform maintenance on the previously approved and installed NO_x reduction equipment. This activity is expected to result in approximately \$375,000

of O&M expenses.

Q. Please describe long-term $NO_{\rm x}$ requirements associated with the Orders and Tampa Electric's efforts to comply with the requirements.

A. The Orders require Big Bend Unit 4 to begin operating with a Selective Catalytic Reduction ("SCR") system or other NO_x control technology, be repowered, or shut down and scheduled for dismantlement by June 1, 2007. Thus, Big Bend Units 3, 2 and/or 1 must operate with an SCR system or other NO_x control technology, be repowered, or be shut down and scheduled for dismantlement one unit per year by May 1, 2008, May 1, 2009 and May 1, 2010, respectively.

In order to meet the NO_x emission rates and timing requirements of the Orders, Tampa Electric engaged an experienced consulting firm, Sargent and Lundy, to assist with the performance of a comprehensive study designed to identify the long-range plans for the generating units at Big Bend Station. The results of the study clearly indicated that the option to remain coal-fired at Big Bend Station and install the necessary NO_x reduction technologies was the most cost-effective alternative to satisfy the NO_x emission reductions required by the

Orders. This decision was communicated to the EPA and FDEP in August 2004. Tampa Electric also apprised the Commission of this decision in its filing made in Docket No. 040750-EI in August 2004.

5

6

7

8

9

1

2

3

Δ

Q. Please describe the Big Bend Units 1 through 3 Pre-SCR and the Big Bend Units 1 through 4 SCR projects and provide estimated capital and O&M expenditures for the period of January 2014 through December 2014.

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

In Docket No. 040750-EI, Order No. A. PSC-04-0986-PAA-EI, issued October 11, 2004, the Commission approved cost recovery of the Big Bend Units 1 through 3 Pre-SCR and the Big Bend Unit 4 SCR projects. The Big Bend Units 1 through 3 SCR projects were approved by the Commission in Docket No. 041376-EI, Order No. PSC-05-0502-PAA-EI, issued May 9, 2005. The purpose of the Pre-SCR technologies is to reduce inlet NO_x concentrations to the SCR systems, thereby mitigating overall SCR capital and O&M costs. These Pre-SCR technologies include windbox modifications, secondary air controls and coal/air flow controls. SCR projects at Big Bend Units 1 through 4 encompass the design, procurement, installation and annual O&M expenses associated with an SCR system for each unit. The SCRs for Big Bend Units 1 through 4 were placed in-service April

2010, September 2009, July 2008 and May 2007, respectively.

For the period of January 2014 through December 2014, no capital or O&M expenditures are anticipated for the Big Bend Units 1 through 3 Pre-SCR projects and there are no anticipated capital expenditures for Big Bend Units 1 through 4 SCRs. However, the 2014 SCR O&M expenses are projected to be \$2,407,100 for Big Bend Unit 1 SCR, \$2,949,700 for Big Bend Unit 2 SCR, \$1,974,800 for Big Bend Unit 3 SCR and \$1,141,300 for Big Bend Unit 4 SCR. These expenses are primarily associated with ammonia purchases.

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

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

- 1) Big Bend Unit 3 FGD Integration
- 22 | 2) Big Bend Units 1 and 2 FGD
 - 3) Gannon Thermal Discharge Study
 - 4) Bayside SCR Consumables
 - 5) Clean Water Act Section 316(b) Phase II Study

- 6) Big Bend FGD System Reliability
- 7) Arsenic Groundwater Standard
 - 8) Clean Air Mercury Rule ("CAMR") now known as the Mercury and Air Toxics Standards ("MATS")
 - 9) Greenhouse Gas ("GHG") Reduction Program
 - 10) Big Bend New Gypsum Storage Facility

Q. Please describe the Big Bend Unit 3 FGD Integration and the Big Bend Units 1 and 2 FGD activities and provide the estimated capital and O&M expenditures for the period of January 2014 through December 2014.

A. The Big Bend Unit 3 FGD Integration program was approved by the Commission in Docket No. 960688-EI, Order No. PSC-96-1048-FOF-EI, issued August 14, 1996. The Big Bend Units 1 and 2 FGD program was approved by the Commission in Docket No. 980693-EI, Order No. PSC-99-0075-FOF-EI, issued January 11, 1999. In those Orders, the Commission found that the programs met the requirements for recovery through the ECRC. The programs were implemented to meet the SO₂ emission requirements of the Phase I and II Clean Air Act Amendments ("CAAA") of 1990.

There are no projected capital expenditures during January 2014 through December 2014 for the Big Bend Unit 3 FGD

Integration project; however, O&M expenses are anticipated to be \$5,624,000 for consumables and ongoing maintenance. The projected January 2014 through December 2014 capital expenditures for the Big Bend FGD Units 1 and 2 project are \$458,200 for the installation of a stack test port installation and installation of a new chlorination system. O&M expenses are anticipated to be \$10,965,200 for consumables and ongoing maintenance.

Q. Please describe the Gannon Thermal Discharge Study program activities and provide the estimated O&M expenditures for the period of January 2014 through December 2014.

A. The Gannon Thermal Discharge Study program was approved by the Commission in Docket No. 010593-EI, Order No. PSC-01-1847-PAA-EI, issued September 14, 2001. In that Order, the Commission found that the program met the requirements for recovery through the ECRC. For the period of January 2014 through December 2014, there are no projected O&M expenditures for this program. In the intent to issue the permit renewal, dated August 9, 2013, FDEP indicated that the proposed NPDES permit authorizes a thermal variance under 316(a) for the permit period. It is anticipated that no additional study will be required.

Q. Please describe the Bayside SCR Consumables program activities and provide the estimated O&M expenditures for the period of January 2014 through December 2014.

A. The Bayside SCR Consumables program was approved by the Commission in Docket No. 021255-EI, Order No. PSC-03-0469-PAA-EI, issued April 4, 2003. For the period of January 2014 through December 2014, Tampa Electric anticipates O&M expenses associated with the consumable goods (primarily anhydrous ammonia) will be approximately \$150,000 for the period.

Q. Please describe the Clean Water Act Section 316(b) Phase II Study program activities and provide the estimated O&M expenditures for the period of January 2014 through December 2014.

A. The Clean Water Act Section 316(b) Phase II Study program was approved by the Commission in Docket No. 041300-EI, Order No. PSC-05-0164-PAA-EI, issued February 10, 2005. On March 20, 2007 the EPA announced that the rule adopted pursuant to Section 316(b) be considered suspended. The suspension of the final rule was made on July 9, 2007. On April 20, 2012, EPA published a proposed rule for existing steam electric generators, with the final rule expected in

July 2012. In July 2012, the final rule was postponed once again until June 2013. In June 2013, the final rule was postponed until November 4, 2013. Due to the current the rulemaking, Tampa Electric does not anticipate any M&Oexpenditures associated with this project.

7

8

9

10

11

1

2

3

5

6

Q. Please describe the Big Bend FGD System Reliability program activities and provide the estimated capital expenses for the period of January 2014 through December 2014.

12

13

14

15

16

17

18

19

20

21

22

was approved by the Commission in Docket No. 050598-EI, Order No. PSC-06-0602-PAA-EI, issued July 10, 2006. The Commission granted cost recovery approval for prudent costs associated with this project. The Big Bend FGD System Reliability project has been running concurrently with the installation of SCR systems on the generating units. For the period of January 2014 through December 2014, there are no anticipated capital expenditures for this project.

23

24

25

Q. Please describe the Arsenic Groundwater Standard program activities and provide the estimated O&M expenditures for

the period of January 2014 through December 2014.

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

For the period of January 2014 through December 2014, Tampa Electric anticipates O&M expenses associated with the sampling activities will be approximately \$422,000.

Q. Please describe the MATS program activities and provide the estimated capital and O&M expenditures for the period of January 2014 through December 2014.

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

granted the subsumption of the previously approved CAMR program into the MATS program.

3

4

5

6

7

8

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1

2

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 pollutants under section 112. At the same time, 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 National Emissions Standards for Hazardous Air Pollutants section of the Clean Air Act. The proposed rule calls for continued mercury monitoring requirements comparable to CAMR and additional monitoring and testing of other pollutants by 2014. On February 16, 2012, the published the final rule for MATS. The rule revised the limits mercury and provided more flexible monitoring/recordkeeping requirements. Additionally, monitoring of acid gases and particulate matter will be required. Existing sources will have through February 16, 2015 to comply with the rule. Tampa Electric must conduct extensive emissions testing and engineering studies at Big Bend Station and Polk Power Station to determine what actions are required to meet the proposed standards.

For 2014, the anticipated capital expenditures are \$5,314,400 for replacement of required equipment for mercury monitoring and upgrades to the FGD systems to meet the emission standards required by the rule, and the anticipated O&M expenditures, are \$218,500 for testing requirements and maintenance of equipment.

7

8

9

1

2

3

4

5

6

Q. What is the impact of the remand of the CAIR and vacatur of the CAMR on Tampa Electric's ECRC projects?

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

On July 6, 2010, the EPA proposed a new rule, the Clean A. Air Transport Rule to replace CAIR. On July 6, 2011, the EPA issued the final CAIR replacement rule, now called the Cross State Air Pollution Rule ("CSAPR"). focused on reducing SO_2 and NO_X in 27 eastern states that contribute to ozone and/or fine particle pollution in other states. In the final rule, Florida is subject to the ozone season control program (May through September). In December 2011, the final rule was stayed by the United States Court of Appeals District of Columbia Circuit. The stay on the finalized CSAPR and the remand of CAIR have minimal impact on Tampa Electric's ECRC projects associated with $NO_{\mathbf{x}}$ and SO_2 abatement. These projects were initiated as a result of the CD signed between the Electric; therefore, EPA and Tampa the company anticipates continuing its efforts to complete and maintain the projects. The completed ECRC projects support compliance with CSAPR.

4

5

6

7

8

9

10

11

1

2

3

The vacatur of CAMR occurred after Tampa Electric had begun the procurement of equipment necessary to meet the intent of the original rule; however, the company was able to stop a significant portion of the total equipment purchase. Subsequent to the vacatur, the company has continued utilizing the resources already secured to establish a baseline of mercury emissions.

12 13

14

15

16

17

18

19

20

21

22

23

24

25

On May 3, 2011 the EPA proposed rules under National Emission Standards for Hazardous Air Pollutants pursuant to a court order referred to as the Utility Maximum Achievable Control Technology ("U MACT"). The proposed rules are to replace CAMR and are expected to reduce not only mercury but acid gas, organics and certain nonmercury metals emissions and require MACT. The final U 2012 MACT rules were released in February with implementation in May 2015. The company continues to the resources already secured to establish a baseline on mercury and other emissions subject to the proposed rule and expects to purchase other equipment that will be required to comply with the rules.

Q. Please describe the GHG Reduction Program activities and provide the estimated capital and O&M expenditures for the period of January 2014 through December 2014.

4

5

6

7

9

10

11

12

13

14

15

1

2

3

A. Tampa Electric's GHG Reduction Program approved by the Commission in Docket No. 090508-EI, Order No. PSC-10-0157-PPA-EI, issued March 22, 2010 is a result of the EPA's Mandatory Reporting Rule requiring annual reporting of Tampa Electric was required to greenhouse gas emissions. report greenhouse gas emissions to the EPA for the first time in 2011. Reporting for the EPA's Greenhouse Gas Mandatory Reporting Rule will continue in 2014. activity is not anticipated to require expenditures; however, it is expected to result approximately \$114,100 in O&M expenses.

16

17

18

19

20

Q. Please describe the Big Bend New Gypsum Storage Facility activities and provide the estimated capital and O&M expenditures for the period of January 2014 through December 2014.

21

22

23

24

25

A. The Big Bend New Gypsum Storage Facility program was approved by the Commission in Docket No. 110262-EI, Order No. 12-0493-PAA-EI, issued September 26, 2012. In that Order, the Commission found that the program meet the

requirements for recovery through ECRC. The completion of the project and in-service date is projected to be May 2014. The total installed capital cost at that time is estimated to be \$21,000,000 and the O&M for 2014 is projected to be \$1,051,200.

6

1

2

3

4

5

Q. Please summarize your testimony.

8

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

7

A. Tampa Electric's settlement agreements with FDEP and EPA require significant reductions in emissions from Tampa Electric's Big Bend and Gannon Stations. The Orders established definite requirements and time frames which air quality improvements must be made and result in reasonable and fair outcomes for Tampa Electric, community and customers, and the environmental agencies. My testimony identified projects that are legally required by these Orders. I described the progress Tampa Electric has made achieve the stringent to more have identified estimated environmental standards. Ι costs, by project, which the company expects to incur in Additionally, my testimony identified projects that are required for Tampa Electric to meet the environmental requirements and I provided the associated 2014 activities and projected expenditures.

25