

## BEFORE THE

## FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 110007-EI

IN RE:

ENVIRONMENTAL COST RECOVERY FACTORS

**PROJECTIONS** 

JANUARY 2012 THROUGH DECEMBER 2012

TESTIMONY AND EXHIBITS

OF

HOWARD T. BRYANT

DOCUMENT NUMBER-DATE

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FPSC-COMMISSION CLERK

TAMPA ELECTRIC COMPANY
DOCKET NO. 110007-EI
FILED: AUGUST 26, 2011

1 BEFORE THE PUBLIC SERVICE COMMISSION PREPARED DIRECT TESTIMONY 2 3 OF HOWARD T. BRYANT 4 5 Please state your name, address, occupation and employer. 6 Q. 7 A. My name is Howard T. Bryant. My business address is 702 8 9 North Franklin Street, Tampa, Florida 33602. 1.0 employed by Tampa Electric Company ("Tampa Electric" or 11 "company") as Manager, Rates in the Regulatory Affairs 12 Department. 13 14 Q. Please provide a brief outline of your educational background and business experience. 15 16 17 I graduated from the University of Florida in June 1973 18 with Bachelor of Science degree in Business 19 Administration. I have been employed at Tampa Electric 20 since 1981. My work has included various positions in 21 Customer Service, Energy Conservation Services, Side Management ("DSM") Planning, Energy Management and 22 Forecasting, and Regulatory Affairs. 23 In my current 24 position I am responsible for the company's Energy 25 Conservation Cost Recovery ("ECCR") clause, the

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

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

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.

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

A. The purpose of my testimony is to present, for Commission review and approval, the calculation of the revenue requirements and the projected ECRC factors for the period of January 2012 through December 2012. In support of the projected ECRC factors, my testimony identifies the capital and operating and maintenance ("O&M") costs associated with environmental compliance activities for the year 2012.

Q. Have you prepared an exhibit that shows the determination of recoverable environmental costs for the period of January 2012 through December 2012?

Yes. Exhibit (HTB-3), containing eight No. prepared under documents, was my direction and supervision. Document Nos. 1 through 8 contain Forms 42-1P through 42-8P, which show the calculation and summary O&M and capital expenditures that support development of the environmental cost recovery factors for 2012.

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- 9 **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 2012.
  - Q. What has Tampa Electric calculated as the net true-up to be applied in the period January 2012 through December 2012?
  - A. The net true-up applicable for this period is an underrecovery of \$3,080,888. This consists of the final trueup under-recovery of \$2,616,798 for the period of January 2010 through December 2010 and an estimated true-up

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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 2012 through December 2012?

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Α. There were two major contributing factors that created the net under-recovery. First, the combination of O&M and capital project expenditures were greater than anticipated. Second, ECRC revenues were less than expected.

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Q. Will Tampa Electric include any new environmental compliance projects for ECRC cost recovery for the period from January 2012 through December 2012?

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A. No, Tampa Electric is not including any new environmental compliance projects for ECRC cost recovery during 2012.

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Q. What are the existing capital projects included in the calculation of the ECRC factors for 2012?

1	A.	Tampa Electric proposes to include for ECRC recovery the
2		26 previously approved capital projects and their
3		projected costs in the calculation of the ECRC factors
4		for 2012. These projects are:
5		
6		1) Big Bend Unit 3 Flue Gas Desulfurization ("FGD")
7		Integration
8		2) Big Bend Units 1 and 2 Flue Gas Conditioning
9		3) Big Bend Unit 4 Continuous Emissions Monitors
10		4) Big Bend Fuel Oil Tank 1 Upgrade
11		5) Big Bend Fuel Oil Tank 2 Upgrade
12		6) Phillips Tank No. 1 Upgrade
13		7) Phillips Tank No. 4 Upgrade
14		8) Big Bend Unit 1 Classifier Replacement
15		9) Big Bend Unit 2 Classifier Replacement
16		10) Big Bend Section 114 Mercury Testing Platform
17		11) Big Bend Units 1 and 2 FGD
18		12) Big Bend FGD Optimization and Utilization
19		13) Big Bend $NO_x$ Emissions Reduction
20		14) Big Bend Particulate Matter ("PM") Minimization and
21		Monitoring
22		15) Polk NO <sub>x</sub> Emissions Reduction
23		16) Big Bend Unit 4 SOFA
24		17) Big Bend Unit 1 Pre-SCR
25		18) Big Bend Unit 2 Pre-SCR

19) Big Bend Unit 3 Pre-SCR 1 20) Big Bend Unit 1 SCR 2 3 21) Big Bend Unit 2 SCR 22) Big Bend Unit 3 SCR 23) Big Bend Unit 4 SCR 5 6 24) Big Bend FGD Reliability 25) Clean Air Mercury Rule 7 26) SO<sub>2</sub> Emission Allowances 8 9 Some of these projects are described in more detail in 10 the direct testimony of Tampa Electric witness, 11 12 Carpinone. 13 14 Q. Have you prepared schedules showing the calculation of the recoverable capital project costs for 2012? 15 16 Form 42-3P contained in Exhibit No. Yes. 17 Α. (HTB-3)18 summarizes the estimates projected cost for 19 projects. Form 42-4P, pages 1 through 26, provides the calculations of the costs, which result in recoverable 20 jurisdictional capital costs of \$61,487,092. 21 22 23 Q. What are the existing O&M projects included the calculation of the ECRC factors for 2012? 24

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1	A.	Tampa Electric proposes to include for ECRC recovery the
2		22 previously approved O&M projects and their projected
3		costs in the calculation of the ECRC factors for 2012.
4		These projects are:
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6		1) Big Bend Unit 3 FGD Integration
7		2) Big Bend Units 1 and 2 Flue Gas Conditioning
8		3) SO <sub>2</sub> Emissions Allowances
9		4) Big Bend Units 1 and 2 FGD
10		5) Big Bend PM Minimization and Monitoring
11		6) Big Bend $NO_x$ Emissions Reduction
12		7) NPDES Annual Surveillance Fees
13		8) Gannon Thermal Discharge Study
14		9) Polk $NO_{\mathbf{x}}$ Emissions Reduction
15		10) Bayside SCR and Ammonia
16		11) Big Bend Unit 4 SOFA
17		12) Big Bend Unit 1 Pre-SCR
18		13) Big Bend Unit 2 Pre-SCR
19		14) Big Bend Unit 3 Pre-SCR
20		15) Clean Water Act Section 316(b) Phase II Study
21		16) Arsenic Groundwater Standard Program
22		17) Big Bend Unit 1 SCR
23		18) Big Bend Unit 2 SCR
24		19) Big Bend Unit 3 SCR
25		20) Big Bend Unit 4 SCR

1		21) Clean Air Mercury Rule
2		22) Greenhouse Gas Reduction Program
3		
4		Some of these projects are described in more detail in
5		the direct testimony of Tampa Electric witness, Paul
6		Carpinone.
7		
8	Q.	Have you prepared schedules showing the calculation of
9		the recoverable O&M project costs for 2012?
10		
11	A.	Yes. Form 42-2P contained in Exhibit No (HTB-3)
12		summarizes the recoverable jurisdictional O&M costs for
13		these projects which total \$22,580,489 for 2012.
14		
15	Q.	Do you have a schedule providing the description and
16		progress reports for all environmental compliance
17		activities and projects?
18		
19	A.	Yes. Project descriptions and progress reports, as well
20		as the projected recoverable cost estimates, are provided
21		in Form 42-5P, pages 1 through 32.
22		
23	Q.	What are the total projected jurisdictional costs for
24		environmental compliance in the year 2012?
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A. The total jurisdictional O&M and capital expenditures to be recovered through the ECRC are calculated on Form 42-1P. These expenditures total \$84,067,581.

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Q. How were environmental cost recovery factors calculated?

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The environmental cost recovery factors were calculated shown on Schedules 42-6P and 42-7P. 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 The energy allocation factors were determined by calculating the percentage that each rate class contributes to total MWH sales and then adjusted for losses for each rate class. This information was based on applying historical rate class load research to the 2012 projected forecast of system demand and energy. Form 42-7P presents the calculation of the proposed ECRC factors by rate class.

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Q. What are the ECRC billing factors by rate class for the period of January through December 2012 which Tampa Electric is seeking approval?

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A. The computation of the billing factors by metering

voltage	level i	s sh	own in	Exhibit	No.		(HTB	<b>-</b> 3)
Document	No. 7,	Form	42-7P.	In su	ummary,	the	Janu	ary
through	December	2012	proposed	ECRC :	billing	fact	ors	are
as follo	ws:							

6	Rate Class	Factor by Voltage
7		Level (¢/kWh)
8	RS Secondary	0.460
9	GS, TS Secondary	0.460
10	GSD, SBF	
11	Secondary	0.458
12	Primary	0.453
13	Transmission	0.449
14	IS	
15	Secondary	0.450
16	Primary	0.446
17	Transmission	0.441
18	LS1	0.457
19	Average Factor	0.459
20		

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

A. The environmental cost recovery factors will be effective concurrent with the first billing cycle for January 2012.

Q. What capital structure, components and cost rates did

Tampa Electric rely on to calculate the revenue
requirement rate of return for January 2012 through
December 2012?

A. Tampa Electric relied upon the capital structure approved by the Commission in Docket No. 080317-EI, to calculate the revenue requirement rate of return found on Form 42-8P.

Q. Are the costs Tampa Electric is requesting for recovery through the ECRC for the period January 2012 through December 2012 consistent with criteria established for ECRC recovery in Order No. PSC-94-0044-FOF-EI?

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

 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 0.459 cents per kWh. This includes the projected capital and 0&M revenue requirements of \$84,067,581 associated with a total of 32 environmental projects and a true-up under-recovery provision of \$3,080,888 that is primarily driven by the combination of 0&M and capital expenditures being greater than anticipated while ECRC revenue was less than expected. My testimony also explains that the projected environmental expenditures for 2012 are appropriate for recovery through the ECRC.

Q. Does this conclude your testimony?

A. Yes, it does.

## **INDEX**

# ENVIRONMENTAL COST RECOVERY COMMISSION FORMS

## **JANUARY 2012 THROUGH DECEMBER 2012**

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# DOCKET NO. 110007-EI ECRC 2012 PROJECTION FILING EXHIBIT NO. HTB-3 DOCUMENT NO. 1

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

# For the Projected Period January 2012 to December 2012

<u>Line</u>	Energy (\$)	Demand (\$)	Total (\$)
Total Jurisdictional Revenue Requirements for the projected period			
a. Projected O&M Activities (Form 42-2P, Lines 7, 8 & 9)	\$21,832,135	\$748,354	\$22,580,489
b. Projected Capital Projects (Form 42-3P, Lines 7, 8 & 9)	61,341,759	145,333	61,487,092
c. Total Jurisdictional Revenue Requirements for the projected period (Lines 1a + 1b)	83,173,894	893,687	84,067,581
True-up for Estimated Over/(Under) Recovery for the current period January 2011 to December 2011			
(Form 42-2E, Line 5 + 6 + 10)	(461,691)	(2,399)	(464,090)
3. Final True-up for the period January 2010 to December 2010 (Form 42-1A, Line 3)	(2,606,498)	(10,300)	(2,616,798)
Total Jurisdictional Amount to Be Recovered/(Refunded)     in the projection period January 2012 to December 2012			
(Line 1 - Line 2- Line 3)	86,242,083	906,386	87,148,469
<ol> <li>Total Projected Jurisdictional Amount Adjusted for Taxes</li> <li>(Line 4 x Revenue Tax Multiplier)</li> </ol>	\$86,304,177	\$907,039	\$87,211,216

**Notes:** Allocation to energy and demand in each period is in proportion to the respective period split of costs indicated on Lines 7 and 8 of Forms 42-5 and 42-7 of the actuals and estimates.

# Tampa Electric Company Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2012 to December 2012

# O&M Activities (in Dollars)

Line	_	-	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total	Method of Demand	Classification Energy
1	. Di	escription of O&M Activities															
	a.	Big Bend Unit 3 Flue Gas Desulfurization Integration	\$359,100	\$381,900	\$405 600	\$372,400	\$356,800	\$354.500	#200 000	****	****						
	b.	Big Bend Units 1 & 2 Flue Gas Conditioning	0	0	0.000	\$312,400 0	000,000	#354,300 0	\$360,600 0	\$359,400 0	\$421,200	\$415,400	\$343,700	\$359,600	\$4,490,200		\$4,490,200
	Ç.	SO <sub>2</sub> Emissions Allowances	1,843	1.706	1,841	1,860	1,913	1,842	1,904	•	0	0	0	0	0		0
	d.	Big Bend Units 1 & 2 FGD	725,500	684.000	726,200	857,500	720,600	717,900	\$728,500	1,902	1,840	1,916	1,855	1,840	22,262		22,262
	e.	Big Bend PM Minimization and Monitoring	27,200	27,200	43,200	43,200	27,200	27,200	\$27,200	\$726,000 \$27,200	\$703,600	\$703,400	\$691,300	\$850,600	8,835,100		8,835,100
	f.	Big Bend NO, Emissions Reduction	8,000	58,000	58,000	59,000	40,000	28.000	\$8,000		\$43,200	\$43,200	\$27,200	\$27,200	390,400		390,400
	g.	NPDES Annual Surveillance Fees	34,500	0	0	00,000	40,000	20,000	\$6,000 O	\$8,000	\$8,000	\$59,000	\$33,000	\$28,000	395,000		395,000
	ĥ.	Gannon Thermal Discharge Study	5,000	5.000	1,000	1,000	1,000	1,000	1,000	1.000	0	0	0	٥	34,500	34,500	
	i,	Polk NO <sub>x</sub> Reduction	2,500	2.500	2,500	5,000	2.500	2,500	2,500	2,500	1,000	1,000	1,000	1,000	20,000	20,000	
	j.	Bayside SCR and Ammonia	13,300	0	2,000	13,300	2,300	13.300			2,500	5,000	2,500	2,500	35,000		35,000
	k.	Big Bend Unit 4 SOFA	0	ñ	n	13,300	0	13,300	13,300 0	13,300	13,300	13,300	D	13,300	106,400		106,400
	- 1,	Big Bend Unit 1 Pre-SCR	ō	Ď	o o	ő	0	0	0	0	0	0	0	0	O		g
	m.		ō	ŏ	Ď	ő	Ö	ŭ	0	0	0	0	0	0	0		0
	n.	Big Bend Unit 3 Pre-SCR	0	Ö	0	Ď	ő	ő	ŏ	o o	0	n	0	U	0		0
	Q,	Clean Water Act Section 316(b) Phase II Study	2,500	2,500	2,500	2,500	2,500	2.500	2.500	2,500	2.500	2,500	2.500	0 2.500	0		Ü
	P.	Arsenic Groundwater Standard Program	50,000	175,000	292,000	50,000	80,000	2,000	10,000	2,300	2,500	10,000	2,500		30,000 667,000	30,000	
	q.	Big Bend 1 SCR	217,241	192,498	221,640	146,776	217,913	215,192	221,181	219.532	214,236	207,120	207,204	0 185,956	2.466.489	667,000	0.400.400
	Γ,	Big Bend 2 SCR	227,272	200,265	228,434	148,973	223,002	219,184	225,799	224,397	219,470	211,541	212,229	195.865	2,536,432		2,466,489 2,536,432
	S,	Big Bend 3 SCR	130,580	115,928	105,905	150,316	131,407	133,040	135,941	134.313	88,135	125 999	122,203	139,266	1.513.033		2,536,432 1,513,033
$\mathbf{H}$	t.	Big Bend 4 SCR	84,244	59,390	100,538	94,714	81,513	82 195	86,772	85,960	101,330	65,215	72,579	83,820	998 269		998,269
	ц.	Clean Air Mercury Rule	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000		24,000
(J)	٧.	Greenhouse Gas Reduction Program	0	0	0	00	40,000	0		0	0	0	_,000	2,000	40.000		40,000
2.	Tat	tal of O&M ActivitieS	1,890,781	1,907,887	2,191,358	1,948,538	1,928,348	1,800,353	1,827,197	1,808,005	1,822,310	1,866,592	1,719,269	1,893,447	22,604,085	\$751,500	\$21,852,585
3.	Re	coverable Costs Allocated to Energy	1,798,781	1,725,387	1.895.858	1,895,038	1,844,848	1.796.853	4.040.007	4 *** ***							
4.		coverable Costs Allocated to Demand	92.000	182,500	295,500	53,500	83,500	3,500	1,813,697	1,804,505	1,818,810	1,853,092	1,715,769	1,889,947	21,852,585		
			-2,000	102,000	235,500	33,500	03,300	3,500	13,500	3,500	3,500	13,500	3,500	3,500	751, <b>5</b> 00		
5.	Re	tail Energy Jurisdictional Factor	0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.0000040						
6.	Re	tail Demand Jurisdictional Factor	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9979397	0.9975653	0.9983219 0.9958152	0.9986438	0.9998917	0.9999727			
					0.0000.02	0.0000102	0.3355152	0.5550152	0.9930132	0.9930132	0.9956152	0.9958152	0.9958152	0.9958152			
7.		isdictional Energy Recoverable Costs (A)	1,798,402	1,725,274	1.895,815	1,894,797	1,842,526	1,793,334	1,809,960	1,800,112	1,815,758	1,850,579	1,715,583	4 980 967	04 880 405		
8.	Jur	isdictional Demand Recoverable Costs (B)	91,615	181,736	294,263	53,276	83,151	3.485	13,444	3,485	3.485	13,444	1,715,583 3,485	1,889,895	21,832,135		
		-				,		3,100		3,703	3,463	13,444	3,465	3,485	748,354		
9.		al Jurisdictional Recoverable Costs for O&M ivities (Lines 7 + 8)	\$1,890,017	\$1,907,010	\$2,190,078	\$1,948,073	\$1,925,777	\$1,796,819	\$1,823,404	\$1,803, <del>5</del> 97	\$1,819,243	\$1,864,023	\$1,719,068	\$1,893,380	\$22 580 480		
												1.,,,,,,,,	Ţ., <u>J,</u> 000	\$1,000,000	Ψ£2,505,705		

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

# Tampa Electric Company Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Penod Amount January 2012 to December 2012

#### Capital Investment Projects-Recoverable Costs

(in Dollars)

															End of		
			Projected	Period		Classification											
-	Line	Description (A)	January	February	March	April	Мау	June	July	August	September	October	November	December	Total	Demand	Energy
	1. a.	Big Bend Unit 3 Flue Gas Desulfurization Integration	\$60,858	\$60,705	\$60,607	\$60,701	\$60,942	\$61,298	\$62,511	\$63,839	\$65,495	\$67,171	\$68,435	\$75,840	\$768,402		\$768,402
	b.	Big Bend Units 1 and 2 Flue Gas Conditioning	32,768	32,639	32,508	32,378	32,247	32,118	31,987	31,857	31,727	31,597	31,467	31,336	384,629		384,629
	C.	Big Bend Unit 4 Continuous Emissions Monitors	6,269	6,255	6,240	6,225	6,211	6,196	6,181	6,167	6,152	6,137	6,122	6,108	74,263		74,263
	d.	Big Bend Fuel Oil Tank # 1 Upgrade	4,229	4,220	4,209	4, 198	4,188	4,177	4,166	4,157	4,146	4,136	4,125	4,114	50,065	\$ 50,066	
	e	Big Band Fuel Oil Tank # 2 Upgrade	6,957	6,939	6,922	6,905	6,888	6,871	6,854	6,836	6,819	6,802	6,784	6,767	82,344	82,344	
	f	Phillips Upgrade Tank # 1 for FDEP	446	445	444	442	441	440	438	437	436	434	433	431	5,267	5,267	
	9.	Phillips Upgrade Tank # 4 for FDEP	701	699	696	695	692	590	688	686	683	682	679	676	8,267	8,267	
	ĥ.	Big Bend Unit 1 Classifier Replacement	10,499	10,465	10,429	10,394	10,359	10,323	10,288	10,254	10,219	10,183	10,148	10,113	123,674		123,674
	ι.	Big Bend Unit 2 Classifier Replacement	7,625	7,599	7,575	7,550	7.526	7,501	7,476	7,451	7,427	7,402	7,377	7,352	89,861		89,861
	j.	Big Bend Section 114 Mercury Testing Platform	1,072	1,071	1,068	1,067	1.064	1,063	1,060	1,059	1,056	1,055	1,053	1,051	12,739		12,739
	k.	Big Bend Units 1 & 2 FGD	729,317	731,137	732,627	737,838	739,557	741,263	739,278	737,180	735,049	732,900	730,751	728,603	8,815,500		8,815,500
	- 1	Big Bend FGD Optimization and Utilization	198,814	198,410	198,005	197,601	197,196	196,793	196,388	195,984	195,579	195,176	194,771	194,366	2,359,083		2,359,083
	m	Big Bend NO <sub>v</sub> Emissions Reduction	64,574	64,493	64,413	64,331	64,251	64,170	64,089	64,008	63,926	63,846	63,765	63,684	769,550		769,550
	n.	Big Bend PM Minimization and Monitoring	87,164	86,957	86,750	86,544	86,337	86,179	89,492	92,826	92,767	92,707	92,645	95,982	1,076,352		1 076 352
	0.	Polk NO <sub>x</sub> Emissions Reduction	15,506	15,463	15,421	15,377	15,334	15,291	15,248	15,205	15,163	15,120	15,076	15,033	183,237		183,237
	D	Big Bend Unit 4 SOFA	25,578	25,528	25,479	25,429	25,379	25,329	25,280	25,230	25,181	25,130	25,081	25,031	303,655		303,655
	ġ.	Big Bend Unit 1 Pre-SCR	17,905	17,861	17,817	17,773	17,729	17,685	17,640	17,596	17,552	17,508	17,464	17,420	211,950		211,950
	r.	Big Bend Unit 2 Pre-SCR	17,065	17,025	16,985	16,946	16,906	16,866	16,827	16,787	16,747	16,708	16,668	16,629	202,159		202,159
	S.	Big Bend Unit 3 Pre-SCR	29,534	29,478	29,422	29,366	29,310	29,253	29,196	29,140	29,084	29,028	28,972	28,914	350,697		350,697
	ŧ.	Big Bend Unit 1 SCR	966,183	964,374	962,564	960,754	958,944	957,134	955,324	953,514	951,704	949,895	948,084	946,275	11,474,749		11,474,749
	u.	Big Bend Unit 2 SCR	1,043,796	1,044,298	1,044,801	1,045,303	1,043,379	1,043,881	1,044,384	1,042,459	1,040,535	1,038,609	1.036.685	1,037,188	12,505,318		12,505,318
	٧	Big Bend Unit 3 SCR	862,736	861,306	859,876	858,445	857,015	855,585	854,155	852.724	851.294	849,864	848,434	847,004	10,258,438		10,258,438
	w	Big Bend Unit 4 SCR	655,721	654,667	653,612	652,558	651,504	650,449	649,395	648,341	647,286	646,232	645,177	644,123	7,799,065		7,799,065
	X.	Big Bend FGD System Reliability	245.482	280,271	289,972	295,198	296,302	296,387	296,230	295,733	295,236	294,739	294,243	293,746	3,473,539		3,473,539
	у	Clean Air Mercury Rule	13,872	13,940	13,912	13,884	13,855	13,924	13,992	13,964	13,936	13,908	13,879	13,850	166,916		166,916
	z.	SO <sub>2</sub> Emissions Allowances (B)	(372)	(370)	(370)	(369)	(368)	(366)	(365)	(365)	(363)	(362)	(351)	(360)	(4,391)		(4,391)
	2.	Total Investment Projects - Recoverable Costs	5.104.299	5,135,875	5,141,984	5,147,533	5,143,188	5,140,500	5,138,202	5,133,071	5,124,836	5,116,607	5,107,957	5 111 276	61,545,328	\$ 145,943	\$ 61,399,385
	3.	Recoverable Costs Allocated to Energy	5.091,966	5,123,572	5,129,713	5.135.293	5.130.979	5.128.322	5,126,056	5,120,955	5,112,752	5,104,553	5,095,936	5,099,288	61,399,385		
	4.	Recoverable Costs Allocated to Demand	12,333	12,303	12,271	12,240	12,209	12.178	12,146	12,116	12,084	12,054	12,021	11,988	145,943		
	7.	Recoverable Custs Anocated to Demand	12,555	12,303	12,211	12,240	12,205	12,170	12,140	12,110	72,254	12,00					
	5.	Retail Energy Jurisdictional Factor	0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727			
	6.	Retail Demand Jurisdictional Factor	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0 9958152	0.9958152	0.9958152	0.9958152	0.9958152			
	7	Jurisdictional Energy Recoverable Costs (C)	5.090.894	5.123.235	5,129,597	5,134,639	5,124,800	5,118,277	5.115.495	5,108,487	5,104,172	5,097,630	5,095,384	5.099,149	61,341,759		
	B	Jurisdictional Demand Recoverable Costs (D)	12.281	12.252	12.220	12,189	12,158	12.127	12.095	12.065	12.033	12,004	11,971	11,938	145,333		
	0.	ourselled to the control of the cont	12,201	72,202	-2,220			12,127	12,000			,-21		,			
	9.	Total Jurisdictional Recoverable Costs for													*44 407 000		
		Investment Projects (Lines 7 + 8)	\$5,103,175	\$5,135,487	\$5,141,817	\$5,146,828	\$5,136,958	\$5,130,404	\$5,127,590	\$5,120,552	\$5,116,205	\$5,109,634	\$5,107,355	\$5,111,087	\$01,467,USZ		

Notes:

(A) Each projects Total System Recoverable Expenses on Form 42-4P, Line 9
(B) Projects Total Return Component on Form 42-4P, Line 6
(C) Line 3 x Line 5
(D) Line 4 x Line 6

#### Tampa Electric Company Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2012 to December 2012

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

Line	Description	Beginning of Period Amou <u>nt</u>	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		**	••	\$11.338	\$39.682	\$41,603	<b>\$6</b> 3,252	\$218.261	\$86.824	<b>\$2</b> 85,803	\$91,029	\$201.017	\$1.355.919	\$2.394.728
	Expenditures/Additions     Clearings to Plant		\$0 0	\$0 0	\$11,338	\$39,082 ()	\$41,603 0	<b>303</b> ,232	\$218,201 0	\$00,0∠4 0	<b>3203,0</b> 03	\$91,029 0	\$201,017 0	\$1,555,815 0	₩Z,354,120
	c. Retirements		0	0	0	0	0	0	0	n	0	ŭ	ŏ	ő	
	d. Other		ŏ	ő	ŏ	ő	o o	å	Ď	ő	ŏ	ő	ō	ō	
	u. 0.1101		_	_	_	•	_								
2.	Plant-in-Service/Depreciation Base (A)	\$8,239,658	\$8,239,658	\$8,239,658	\$8,239,658	\$8,239,658	\$8,239,658	\$8,239,658	\$8,239,658	\$8,239,658	\$8,239,658	\$8,239,658	\$8,239,658	\$8,239,658	
3.	Less: Accumulated Depreciation	(3,590,325)	(3,606,118)	(3,621,911)	(3,637,704)	(3,653,497)	(3,669,290)	(3,685,083)	(3,700,876)		(3,732,462)		(3,764,048)	(3,779,841)	
4.	CWIP - Non-Interest Bearing	0	0	0	11,338	51,020	92,623	155,875	374,136	460,960	746,763	837,792	1,038,809	2,394,728	
5.	Net Investment (Lines 2 + 3 + 4)	\$4,649,333	4,633,540	4,617,747	4,613,292	4,637,181	4,662,991	4,710,450	4,912,918	4,983,949	5,253,959	5,329,195	5,514,419	6,854,545	
6.	Average Net Investment		4,641,437	4,625,644	4,615,520	4,625,237	4,650,086	4,686,721	4,811,684	4,948,434	5,118,954	5,291,577	5,421,807	6,184,482	
7	Return on Average Net Investment														
•	a. Equity Component Grossed Up For Ta	ixes (B)	33.723	33,608	33,535	33,605	33,786	34,052	34,960	35,954	37,193	38,447	39,393	44,934	\$433,190
	b. Debt Component Grossed Up For Tax		11,342	11,304	11,279	11,303	11,363	11,453	11,758	12,092	12,509	12,931	13,249	15,113	145,696
	•														
8.	Investment Expenses														
	Depreciation (D)		15,793	15,793	15,793	15,793	15,793	15,793	15,793	15,793	15,793	15,793	15,793	15,793	189,516
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	U
	c. Dismantlement		0	0	0	0	0	0	0	٥	0	0	0	0	0
	d. Property Taxes		0	0	0	0	Ü	0	0	0	0	0	0	0	0
	e. Other			U	U	<u> </u>	U	U	0	- 0					
9	Total System Recoverable Expenses (Lin	as 7 + 8)	60,858	60.705	60.607	60.701	60,942	61,298	62,511	63,839	65,495	67.171	68,435	75,840	768,402
٠.	a. Recoverable Costs Allocated to Energ		60.858	60,705	60,607	60,701	60,942	61,298	62,511	63,839	65,495	67,171	68,435	75,840	768,402
	b. Recoverable Costs Allocated to Dema		0	0	0	0	0	. 0	. 0	. 0	. 0	0	0	٥	0
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
4.0	B / 15 B	(5)	00.045	00.704	00.000	CO COO	60.000	64.470	60.000	63,684	65,385	67,080	68,428	75,838	767,689
12.	Retail Energy-Related Recoverable Costs Retail Demand-Related Recoverable Costs		60,845 0	60,701 0	60,606	60,693 0	60,869 0	61,178 0	62,382 D	63,684 0	65,365	080,18 0	98,4∠8 ∩	/5,636 N	767,009 O
13. 14.	Total Jurisdictional Recoverable Costs (L		\$60,845	\$60,701	\$60,606	\$60,693	\$60,869	\$61,178	\$62,382	\$63,684	\$65,385	\$67,080	\$68,428	\$75,838	\$767.689
14.	TOTAL DUI ISGICTION AN PROUVENABLE COSTS (L	1103 12 ( 13)	#GU,645	φου,701	Ψου,σου	#00,093	\$00,009	ΨΟ1,110	ψ0Z,00Z	\$00,00 <del>4</del>	\$00,000	400,100	₩30,120	<del>+.0,000</del>	Ţ. J. , 00B

- Notes:

  (A) Applicable depreciable base for Big Bend; account 312.45

  (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
  - (C) Line 6 x 2.9324% x 1/12.
  - (D) Applicable depreciation rate is 2.3%
  - (E) Line 9a x Line 10
  - (F) Line 9b x Line 11

#### Tampa Electric Company Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2012 to December 2012

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														
	<ul> <li>a. Expenditures/Additions</li> </ul>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$Q	\$0	\$0	\$0	\$0
	<ul> <li>b. Clearings to Plant</li> </ul>		0	0	0	0	0	٥	0	0	o	o	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	\$5,017,734	\$5,017,734	\$5,017,734	\$5.017.734	\$5,017,734	\$5,017,734	\$5,017,734	\$5.017.734	\$5,017,734	\$5,017,734	\$5.017.734	\$5,017,734	\$5,017,734	
3.	Less: Accumulated Depreciation	(3,017,126)	(3,030,535)	(3.043.944)	(3,057,353)	(3,070,762)	(3,084,171)	(3,097,580)			(3,137,807)		(3,164,625)	(3,178,034)	
4.	CWIP - Non-Interest Bearing	0	0	0	o o	oʻ	Ò	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	\$2,000,608	1,987,199	1,973,790	1,960,381	1,946,972	1,933,563	1,920,154	1,906,745	1,893,336	1,879,927	1,866,518	1,853,109	1,839,700	
6.	Average Net Investment		1,993,904	1,980,495	1,967,086	1,953,677	1,940,268	1,926,859	1,913,450	1,900,041	1,886,632	1,873,223	1,859,814	1,846,405	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Ta	axes (B)	14,487	14,390	14,292	14.195	14,097	14.000	13,902	13,805	13,708	13.610	13,513	13,415	\$167,414
	b. Debt Component Grossed Up For Tax	kes (C)	4,872	4,840	4,807	4 774	4,741	4,709	4,676	4,643	4,610	4 578	4,545	4,512	56,307
8.	Investment Expenses														
	a. Depreciation (D)		13,409	13,409	13,409	13,409	13,409	13,409	13,409	13.409	13,409	13,409	13,409	13,409	160,908
	b. Amortization		0	. 0	0	. 0	٥	0	0	0	0	0	0	0,100	0
	c. Dismantiement		0	0	0	0	0	0	0	0	Ó	ō	ō	ū	Ô
	d. Property Taxes		0	0	0	0	0	0	0	0	0	ō	ō	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0_
9.	Total System Recoverable Expenses (Lin	nes 7 + 8)	32.768	32.639	32,508	32,378	32.247	32,118	31.987	31.857	31,727	31,597	31,467	31,336	384.629
	a Recoverable Costs Allocated to Energ		32,768	32,639	32,508	32,378	32,247	32,118	31,987	31,857	31,727	31.597	31,467	31,336	384,629
	b. Recoverable Costs Allocated to Dema	and	0	0	0	0	0	0	0	0	0	0	0	0 1,000	0
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs		32,761	32,637	32,507	32,374	32,208	32,055	31,921	31,779	31,674	31,554	31,464	31,335	384,269
13.	Retail Demand-Related Recoverable Cos		0	0	0	0	. 0	0		0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (L	ines 12 + 13)	\$32,761	\$32,637	\$32,507	\$32,374	\$32,208	\$32,055	\$31,921	\$31,779	\$31,674	\$31,554	\$31,464	\$31,335	\$384,269

- (A) Applicable depreciable base for Big Bend; accounts 312.41 (\$2,676,217) and 312.42 (\$2,341,517)
  (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
  (D) Applicable depreciation rates are 3.3% and 3.1%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

End of

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

1. Investments a. Expenditures/Additions b. Clearings to Plant c. Retirements d. Other  2. Plant-in-Service/Depreciation Base (A) b. Cwill - Non-Interest Bearing b. Net Investment  489,608  488,992  486,576  485,060  483,544  482,028  480,512  3,491  3,490  3,491  3,480  5,11  480,021  480,021  480,021  480,021  480,021  480,022  480,576  480,020  480,	\$0 \$0 0 0 0 0 0 0 0 0 \$866,211 \$866,211 (389,489) (391,005)	\$0 \$0 0 0 0 0 0 0 \$866,211 \$866,211	
b. Clearings to Plant c. Retirements 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 0 0 0	
c. Retirements         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	I
d. Other 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 \$866,211 \$866,211 (389,489) (391,005)	ō c	
2. Plant-in-Service/Depreciation Base (A) \$866,211 \$866,2	\$866,211 \$866,211 (389,489) (391,005)	·	
3. Less: Accumulated Depreciation (375,845) (377,361) (378,877) (380,393) (381,909) (383,425) (384,941) (386,457) (387,973) 4. CWIP - Non-Interest Bearing 0 0 0 0 0 0 0 0 0 0 0 0 5. Net Investment (Lines 2 + 3 + 4) \$490,366  488,850  487,334  485,818  484,302  482,786  481,270  479,754  478,238  6. Average Net Investment 489,608  488,092  486,576  485,060  483,544  482,028  480,512  478,996  7. Return on Average Net Investment a Equity Component Grossed Up For Taxes (B) 3,557  3,546  3,535  3,524  3,513  3,502  3,491  3,480	(389,489) (391,005)	\$866,211 \$866,211	
3. Less: Accumulated Depreciation (375,845) (377,361) (378,877) (380,393) (381,909) (383,425) (384,941) (386,457) (387,973) (3	(389,489) (391,005)		
5. Net Investment (Lines 2 + 3 + 4) \$490,366		(392,521) (394,037	
6. Average Net Investment 489,608 488,092 486,576 485,060 483,544 482,028 480,512 478,996  7. Return on Average Net Investment a. Equity Component Grossed Up For Taxes (B) 3,557 3,546 3,535 3,524 3,513 3,502 3,491 3,480	0 0	0 0	
7. Return on Average Net Investment a. Equity Component Grossed Up For Taxes (B) 3,557 3,546 3,535 3,524 3,513 3,502 3,491 3,480	476,722 475,206	473,690 472,174	<u>-</u>
a. Equity Component Grossed Up For Taxes (B) 3,557 3,546 3,535 3,524 3,513 3,502 3,491 3,480	477,480 475,964	474,448 472,932	
b. Debt Component Grossed Up For Taxes (C) 1,196 1,193 1,189 1,185 1,182 1,178 1,174 1,171	3,469 3,458	3,447 3,436	\$41,958
	1,167 1,163	1,159 1,156	14,113
8. Investment Expenses			
a. Depreciation (D) 1,516 1,516 1,516 1,516 1,516 1,516 1,516	1,516 1,516	1,516 1,516	18,192
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
9. Total System Recoverable Expenses (Lines 7 + 8) 6,269 6,255 6,240 6,225 6,211 6,196 6,181 6,167	6,152 6,137	6,122 6,108	74,263
a. Recoverable Costs Allocated to Energy 6,269 6,255 6,240 6,225 6,211 6,196 6,181 6,167	6,152 6,137	6,122 6,108	74,263
b. Recoverable Costs Allocated to Demand 0 0 0 0 0 0 0 0	0 0	0 0	0
10. Energy Jurisdictional Factor 0.9997895 0.9999343 0.9999774 0.9998727 0.9987957 0.9980413 0.9979397 0.9975653	0.9983219 0.9986438	0.9998917 0.9999727	
11. Demand Jurisdictional Factor 0.9958152 0.9958152 0.9958152 0.9958152 0.9958152 0.9958152 0.9958152 0.9958152	0.9958152 0.9958152	0.9958152 0.9958152	
12. Retail Energy-Related Recoverable Costs (E) 6,268 6,255 6,240 6,224 6,204 6,184 6,168 6,152		6,121 6,108	74,195
13. Retail Demand-Related Recoverable Costs (F)0 0 0 0 0 0 0	6,142 6,129		
14. Total Jurisdictional Recoverable Costs (Lines 12 + 13) \$6,268 \$6,255 \$6,240 \$6,224 \$6,204 \$6,184 \$6,168 \$6,152	6,142 6,129 0 0	0 0	0

- (A) Applicable depreciable base for Big Bend; account 315.44
- (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 2.1%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

#### 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														
	<ul> <li>a. Expenditures/Additions</li> </ul>		\$0	\$0	\$0	\$0	\$O	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		0	0	0	0	0	0	0	О	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	(172,432)	(173,510)	(174,588)	(175,666)	(176,744)	(177,822)	(178,900)	(179,978)	(181,056)	(182,134)	(183,212)	(184,290)	(185,368)	
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)	\$325,146	324,068	322,990	321,912	320,834	319,756	318,678	317,600	316,522	315,444	314,366	313,288	312,210	
6.	Average Net Investment		324,607	323,529	322,451	321,373	320,295	319,217	318,139	317,061	315,983	314,905	313,827	312,749	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Ta	xes (B)	2,358	2,351	2.343	2,335	2,327	2,319	2,311	2,304	2,296	2,288	2,280	2,272	\$27,784
	b. Debt Component Grossed Up For Tax		793	791	788	785	783	780	777	775	772	770	767	764	9,345
8.	Investment Expenses														
	a. Depreciation (D)		1.078	1.078	1,078	1.078	1.078	1.078	1.078	1.078	1.078	1.078	1.078	1,078	12,936
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	ō	O	0	ō	ō	0	0	ō	0	ō	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	ō	0
	e. Other		0	0	0	. 0	0	0	0	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lin	es 7 + 8)	4,229	4.220	4,209	4.198	4,188	4,177	4.166	4,157	4,146	4.136	4,125	4.114	50,065
	a. Recoverable Costs Allocated to Energ		0	0	0	0	1,100	0	1,130	-1,101	-,,1.0	1,100	0	0	00,000
	b. Recoverable Costs Allocated to Dema		4,229	4,220	4,209	4,198	4,188	4,177	4,166	4,157	4,146	4,136	4,125	4,114	50,065
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152				0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs	(E)	0	0	0	o	0	0	0	0	0	0	0	0	0
13.	Retail Demand-Related Recoverable Cos		4,211	4,202	4,191	4,180	4,170	4,160	4,149	4,140	4,129	4,119	4,108	4.097	49,856
14.	Total Jurisdictional Recoverable Costs (Li	nes 12 + 13)	\$4,211	\$4,202	\$4,191	\$4,180	\$4,170	\$4,160	\$4,149	\$4,140	\$4,129	\$4,119	\$4,108	\$4,097	\$49,856

- (A) Applicable depreciable base for Big Bend; account 312.40
- (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 2.6%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

End of

# Tampa Electric Company Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2012 to December 2012

#### 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	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	ō	0	0	ō	ō	ō	0	
	d. Other		0	0	0	0	0	0	0	O	Ō	Ō	Ō	0	
2.	Plant-in-Service/Depreciation Base (A)	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	\$818,401	
3.	Less: Accumulated Depreciation	(283,624)	(285,397)	(287,170)	(288,943)	(290,716)	(292,489)	(294,262)	(296,035)	(297,808)	(299,581)	(301,354)	(303,127)	(304,900)	
4.	CWIP - Non-Interest Bearing	0	0	0	O	0	0	0	o o	o	Ò	0	o o	O O	
5.	Net Investment (Lines 2 + 3 + 4)	\$534,777	533,004	531,231	529,458	527,685	525,912	524,139	522,366	520,593	518,820	517,047	515,274	513,501	
6.	Average Net Investment		533,891	532,118	530,345	528,572	526,799	525,026	523,253	521,480	519,707	517,934	516,161	514,388	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Tax	xes (B)	3,879	3,866	3,853	3,840	3,828	3,815	3,802	3,789	3,776	3,763	3,750	3,737	\$45,698
	b. Debt Component Grossed Up For Taxe	es (C)	1,305	1,300	1,296	1,292	1,287	1,283	1,279	1,274	1,270	1,266	1,261	1,257	15,370
8.	Investment Expenses														
	a. Depreciation (D)		1,773	1,773	1,773	1,773	1,773	1,773	1,773	1,773	1,773	1,773	1,773	1,773	21,276
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		О	0	0	0	0	0	0	0	O	0	0	0	0
	d. Property Taxes		0	0	0	٥	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 (Line		6,957	6,939	6,922	6,905	6,888	6,871	6,854	6,836	6,819	6,802	6,784	6,767	82,344
	<ul> <li>Recoverable Costs Allocated to Energy</li> </ul>		0	0	0	0	О	0	0	0	0	0	0	0	0
	b. Recoverable Costs Allocated to Demar	nd	6,957	6,939	6,922	6,905	6,888	6,871	6,854	6,836	6,819	6,802	6,784	6,767	82,344
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs		D	0	0	0	0	0	0	0	0	0	0	0	0
13.	Retail Demand-Related Recoverable Cost		6,928	6,910	6,893	6,876	6,859	6,842	6,825	6,807	6,790	6,774	6,756	6,739	81,999
14.	Total Jurisdictional Recoverable Costs (Lin	nes 12 + 13)	\$6,928	\$6,910	\$6,893	\$6,876	\$6,859	\$6,842	\$6,825	\$6,807	\$6,790	\$6,774	\$6,756	\$6,739	\$81,999

- (A) Applicable depreciable base for Big Bend; account 312.40
- (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 2.6%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

End of

#### Return on Capital Investments, Depreciation and Taxes For Project: Phillips Upgrade Tank # 1 for FDEP (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	Period Total
1.	Investments														
	<ul> <li>a. Expenditures/Additions</li> </ul>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<ul> <li>b. Clearings to Plant</li> </ul>		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	O	0	0	0	0	0	0	O	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	\$57,277	\$57,277	\$57,277	\$57,277	\$57,277	\$57,277	\$57,277	\$57,277	\$57,277	\$57,277	\$57,277	\$57,277	\$57,277	
3.	Less: Accumulated Depreciation	(25,968)	(26,111)	(26,254)	(26,397)	(26,540)	(26,683)	(26,826)	(26,969)	(27,112)	(27,255)	(27,398)	(27,541)	(27,684)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	o o	0	Ò	0	
5.	Net Investment (Lines 2 + 3 + 4)	\$31,309	31,166	31,023	30,880	30,737	30,594	30,451	30,308	30,165	30,022	29,879	29,736	29,593	
6.	Average Net Investment		31,238	31,095	30,952	30,809	30,666	30,523	30,380	30,237	30,094	29,951	29,808	29,665	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Ta	ixes (B)	227	226	225	224	223	222	221	220	219	218	217	216	\$2,658
	b. Debt Component Grossed Up For Tax	es (C)	76	76	76	75	75	75	74	74	74	73	73	72	893
8.	Investment Expenses														
	a. Depreciation (D)		143	143	143	143	143	143	143	143	143	143	143	143	1,716
	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	o	0	0	0	0
	d. Property Taxes		0	0	0	0	0	0	D	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 (Lin	es 7 + 8)	446	445	444	442	441	440	438	437	436	434	433	431	5,267
	a. Recoverable Costs Allocated to Energ	y	0	0	0	0	0	0	0	0	0	0	0	0	0
	<ul> <li>Recoverable Costs Allocated to Dema</li> </ul>	nd	446	445	444	442	441	440	438	437	436	434	433	431	5,267
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152		0.9958152	0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs	s (E)	0	0	0	0	0	0	0	0	0	0	D	0	0
13.	Retail Demand-Related Recoverable Cos	ts (F)	444	443	442	440	439	438	436	435	434	432	431	429	5,243
14.	Total Jurisdictional Recoverable Costs (L	ines 12 + 13)	\$444	\$443	\$442	\$440	\$439	\$438	\$436	\$435	\$434	\$432	\$431	\$429	\$5,243

- (A) Applicable depreciable base for Phillips; account 342.28
- (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 3.0%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

#### Return on Capital Investments, Depreciation and Taxes For Project: Phillips Upgrade Tank # 4 for FDEP (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														
	<ul> <li>a. Expenditures/Additions</li> </ul>		\$0	\$0	\$0	\$0	\$O	\$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)	\$90,472	\$90,472	\$90,472	\$90,472	\$90,472	\$90,472	\$90,472	\$90,472	\$90,472	\$90,472	\$90,472	\$90,472	\$90,472	
3.	Less: Accumulated Depreciation	(41,435)	(41,661)	(41,887)	(42,113)	(42,339)	(42,565)	(42,791)	(43,017)	(43,243)	(43,469)	(43,695)	(43,921)	(44,147)	
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)	\$49,037	48,811	48,585	48,359	48,133	47,907	47,681	47,455	47,229	47,003	46,777	46,551	46,325	
6.	Average Net Investment		48,924	48,698	48,472	48,246	48,020	47,794	47,568	47,342	47,116	46,890	46,664	46,438	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Ta	xes (B)	355	354	352	351	349	347	346	344	342	341	339	337	\$4,157
	b. Debt Component Grossed Up For Tax	es (C)	120	119	118	118	117	117	116	116	115	115	114	113	1,398
8.	Investment Expenses														
	a. Depreciation (D)		226	226	226	226	226	226	226	226	226	226	226	226	2.712
	b. Amortization		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	Ö	Ō	0	Ō	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0_
9.	Total System Recoverable Expenses (Lin	es 7 + 8)	701	699	696	695	692	690	688	686	683	682	679	676	8,267
	a. Recoverable Costs Allocated to Energ		0	0	0	0	0	0	0	0	0	0	0	0	0,20,
	b. Recoverable Costs Allocated to Dema		701	699	696	695	692	690	688	686	683	682	679	676	8,267
10	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152		0.9958152	0.9958152	0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs	(E)	0	o	0	0	0	0	0	0	0	0	0	0	0
13.	Retail Demand-Related Recoverable Cos		698	696	693	692	689	687	685	683	680	679	676	673	8,231
14.	Total Jurisdictional Recoverable Costs (Li		\$698	\$696	\$693	\$692	\$689	\$687	\$685	\$683	\$680	\$679	\$676	\$673	\$8,231

- (A) Applicable depreciable base for Phillips; account 342.28
- (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 3.0%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

#### Tampa Electric Company Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2012 to December 2012

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		0	0	0	0	O	0	0	0	0	0	٥	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	٥	0	٥	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	\$1,316,257	\$1,316,257	\$1,316,257	\$1,316,257	\$1,316,257	\$1,316,257	\$1,316,257	\$1,316,257	\$1,316,257	\$1,316,257	\$1,316,257	\$1,316,257	\$1,316,257	
3.	Less: Accumulated Depreciation	(605,912)	(609,532)	(613,152)	(616,772)	(620,392)	(624,012)	(627,632)	(631,252)	(634,872)	(638,492)	(642,112)	(645,732)	(649,352)	
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)	\$710,345	706,725	703,105	699,485	695,865	692,245	688,625	685,005	681,385	677,765	674,145	670,525	666,905	
6.	Average Net Investment		708,535	704,915	701,295	697,675	694,055	690,435	686,815	683,195	679,575	675,955	672,335	668.715	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Ta	xes (B)	5,148	5,122	5,095	5,069	5,043	5,016	4,990	4,964	4,938	4,911	4,885	4,859	\$60,040
	b. Debt Component Grossed Up For Tax	es (C)	1,731	1,723	1,714	1,705	1,696	1,687	1,678	1,670	1,661	1,652	1,643	1,634	20,194
8.	Investment Expenses														
-	a. Depreciation (D)		3,620	3,620	3,620	3,620	3,620	3,620	3,620	3,620	3,620	3.620	3,620	3,520	43,440
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	Ô	٥	o o	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 (Line	es 7 + 8)	10.499	10,465	10,429	10,394	10,359	10.323	10,288	10,254	10,219	10.183	10,148	10,113	123.674
	a. Recoverable Costs Allocated to Energy		10,499	10 465	10 429	10,394	10,359	10,323	10,288	10,254	10,219	10,183	10,148	10,113	123 674
	b. Recoverable Costs Allocated to Dema		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs	(E)	10,497	10,464	10,429	10,393	10,347	10,303	10,267	10,229	10,202	10,169	10,147	10,113	123,560
13.	Retail Demand-Related Recoverable Cost		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Li		\$10,497	\$10,464	\$10,429	\$10,393	\$10,347	\$10,303	\$10,267	\$10,229	\$10,202	\$10,169	\$10,147	\$10,113	\$123,560
	•							- , ,		. ,	. ,		- , ,		

- (A) Applicable depreciable base for Big Bend; account 312.41
  (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 3.3%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

End of

Tampa Electric Company

#### 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	Period Total
1.	Investments														
1.	a. Expenditures/Additions		\$0	<b>f</b> O	¢0	**	60	**	••	••	••		40		**
	b. Clearings to Plant		a) O	\$0 0	\$0 0	\$0 0	\$0 0	\$0 0	\$0 0	\$0	\$0	\$0	\$0	\$0	\$0
	c. Retirements		0	0	0	0	0	0	U	0	0	0	0	0	
	d. Other		0	0	o o	o	0	0	0	0	0	0	0 0	0	
2.	Plant-in-Service/Depreciation Base (A)	\$984,794	\$984,794	\$984,794	\$984.794	\$984,794	\$984,794	\$984,794	\$984,794	\$984,794	\$984.794	\$984,794	\$984,794	\$984,794	
3.	Less: Accumulated Depreciation	(460,278)	(462,822)	(465, 366)	(467,910)	(470,454)	(472,998)	(475,542)	(478,086)		(483,174)	(485,718)	(488,262)	(490,806)	
4.	CWIP - Non-Interest Bearing	0	o o	ì o	Ò	o o	O	0	0	0	0	0	0	(,,,,,,,,	
5.	Net Investment (Lines 2 + 3 + 4)	\$524,516	521,972	519,428	516,884	514,340	511,796	509,252	506,708	504,164	501,620	499,076	496,532	493,988	
6.	Average Net Investment		523,244	520,700	518,156	515,612	513,068	510,524	507,980	505,436	502,892	500,348	497,804	495,260	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Ta	xes (B)	3,802	3,783	3,765	3,746	3,728	3,709	3,691	3,672	3,654	3.635	3.617	3,598	\$44,400
	b. Debt Component Grossed Up For Taxe	es (C)	1,279	1,272	1,266	1,260	1,254	1,248	1,241	1,235	1,229	1,223	1,216	1,210	14,933
8.	Investment Expenses														
	a. Depreciation (D)		2,544	2,544	2,544	2,544	2,544	2,544	2,544	2 544	2,544	2,544	2.544	2.544	30,528
	b. Amortization		0	0	О	0	0	0	0	0	0	0	. 0	. 0	. 0
	<ul> <li>c. Dismantlement</li> </ul>		o	0	0	0	0	0	0	0	0	0	О	0	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other	-	0	C	0	0	. 0	0	0	. 0	0	0	. 0	0	0
9.	Total System Recoverable Expenses (Line		7,625	7,599	7,575	7,550	7,526	7,501	7,476	7,451	7,427	7,402	7,377	7,352	89.861
	<ul> <li>a. Recoverable Costs Allocated to Energy</li> </ul>		7,625	7,599	7,575	7,550	7,526	7,501	7,476	7 451	7,427	7,402	7,377	7,352	89,861
	b. Recoverable Costs Aliocated to Dema-	nd	0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs		7,623	7,599	7,575	7,549	7,517	7,486	7,461	7,433	7,415	7,392	7,376	7,352	89,778
13.	Retail Demand-Related Recoverable Cos		0		0	0	0	0	0	0	0	0	Ō	0	0
14.	Total Jurisdictional Recoverable Costs (Li	nes 12 + 13)	\$7,623	\$7,599	\$7,575	\$7,549	\$7,517	\$7,486	\$7,461	\$7,433	\$7,415	\$7,392	\$7,376	\$7,352	\$89,778

- (A) Applicable depreciable base for Big Bend; account 312.42
- (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 3.1%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

## 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														
	<ul> <li>a. Expenditures/Additions</li> </ul>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<ul> <li>b. Clearings to Plant</li> </ul>		0	0	0	0	0	0	0	0	0	0	0	0	•-
	c. Retirements		0	0	0	0	0	0	0	0	0	0	ō	ō	
	d. Other		0	D	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	\$120,737	\$120,737	\$120,737	\$120,737	\$120,737	\$120,737	\$120,737	\$120,737	\$120,737	<b>\$</b> 120,737	\$120,737	\$120,737	\$120,737	
3.	Less: Accumulated Depreciation	(30,883)	(31,084)	(31,285)	(31,486)	(31,687)	(31,888)	(32,089)	(32,290)	(32,491)	(32,692)	(32,893)	(33,094)	(33, 295)	
4.	CWIP - Non-Interest Bearing	0	0	0		0	o´	o o	` o´	` oʻ	0	, o	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	\$89,854	89,653	89,452	89,251	89,050	88,849	88,648	88,447	88,246	88,045	87,844	87,643	87,442	
6.	Average Net Investment		89,754	89,553	89,352	89,151	88,950	88,749	88,548	88,347	88,146	87,945	87,744	87,543	
7.	Return on Average Net Investment														
	<ul> <li>a. Equity Component Grossed Up For Ta</li> </ul>		652	651	649	648	645	645	643	642	640	639	638	636	\$7,729
	b. Debt Component Grossed Up For Tax	es (C)	219	219	218	218	217	217	216	216	215	215	214	214	2,598
8.	Investment Expenses														
	Depreciation (D)		201	201	201	201	201	201	201	201	201	201	201	201	2,412
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	. 0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Property Taxes		О	0	0	0	0	a	0	0	0	O	٥	D	0
	e. Other	-		0	0	0_	0	0	0_	0	0	0	0	0	0
9.	Total System Recoverable Expenses (Lin		1,072	1,071	1,068	1,067	1,064	1,063	1,060	1,059	1,056	1,055	1,053	1,051	12.739
	<ul> <li>a. Recoverable Costs Allocated to Energ</li> </ul>		1,072	1,071	1,068	1,067	1,064	1,063	1,060	1,059	1,056	1,055	1,053	1,051	12,739
	b. Recoverable Costs Allocated to Dema	nd	0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0,9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs		1,072	1,071	1,068	1,067	1,063	1,061	1,058	1,056	1,054	1,054	1.053	1,051	12,728
13.	Retail Demand-Related Recoverable Cos		0	0	0	0	0	0	0	0	Ď	D	0	0	0
14.	Total Jurisdictional Recoverable Costs (Li	ines 12 + 13)	\$1,072	\$1,071	\$1,068	\$1,067	\$1,063	\$1,061	\$1,058	\$1,056	\$1,054	\$1,054	\$1,053	\$1,051	\$12,728
													<del></del>		

- (A) Applicable depreciable base for Big Bend; account 311.40
  (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 2.0%
- (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 2012 to December 2012

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		\$303,242	\$498,617	\$236,700	\$491,878	\$263,642	\$18,870	\$5,436	\$2,261	\$0	\$0	\$0	\$0	\$1,820,646
	b. Clearings to Plant		4,986	3,000	1,563,004	71,971	1,022,571	18,870	5,436	2,261	0	0	0	0	2,692,099
	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)	\$88,877,654	\$88,882,640	\$88,885,640	\$90,448,644	\$90,520,615	\$91,543,185	\$91,562,055	\$91,567,491	\$91,569,752	\$91,569,752	\$91,569,752	\$91,569,752	\$91,569,752	
3.	Less: Accumulated Depreciation	(36,800,075)	(37,014,863)	(37,229,663)	(37,444,470)	(37,663,054)	(37,881,812)	(38,103,041)	(38,324,316)	(38,545,604)	(38,766,898)	(38,988,192)	(39,209,486)	(39,430,780)	
4.	CWIP - Non-Interest Bearing	871,453	1,169,709	1,665,326	339,022	758,929	0	0	0	0		0_	0_	0_	
5.	Net Investment (Lines 2 + 3 + 4)	\$52,949,031	53,037,486	53,321,303	53,343,196	53,616,490	53,661,373	53,459,014	53,243,175	53,024,148	52,802,854	52,581,560	52,360,266	52,138,972	
6.	Average Net Investment		52,993,258	53,179,394	53,332,249	53,479,843	53,638,931	53,560,193	53,351,094	53,133,661	52,913,501	52,692,207	52,470,913	52,249,619	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Tax	xes (B)	385,031	386,384	387,494	388,567	389,723	389,151	387,631	386,051	384,452	382,844	381,236	379,628	\$4,628,192
	b. Debt Component Grossed Up For Taxe	es (C)	129,498	129,953	130,326	130,687	131,076	130,883	130,372	129,841	129,303	128,762	128,221	127,681	1,556,603
8.	Investment Expenses														
	a. Depreciation (D)		214,788	214,800	214,807	218,584	218,758	221,229	221,275	221,288	221,294	221,294	221,294	221,294	2,630,705
	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
9.	Total System Recoverable Expenses (Line	es 7 + 8)	729,317	731,137	732,627	737,838	739,557	741,263	739,278	737,180	735,049	732,900	730,751	728,603	8,815,500
	a. Recoverable Costs Allocated to Energy	y	729,317	731,137	732,627	737,838	739,557	741,263	739,278	737,180	735,049	732,900	730,751	728,603	8,815,500
	<ul> <li>Recoverable Costs Allocated to Deman</li> </ul>	nd	0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs	(E)	729,163	731,089	732,610	737,744	738,666	739,811	737,755	735,385	733,816	731,906	730,672	728,583	8,807,200
13.	Retail Demand-Related Recoverable Cost		0	0	0	0	0		0	0	0_	0			0
14.	Total Jurisdictional Recoverable Costs (Lin	nes 12 + 13)	\$729,163	\$731,089	\$732,610	\$737,744	\$738,666	\$739,811	\$737,755	\$735,385	\$733,816	\$731,906	\$730,672	\$728,583	\$8,807,200

- Notes:

  (A) Applicable depreciable base for Big Bend; account 312.46

  (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).

  (C) Line 6 x 2 9324% x 1/12.

  - (D) Applicable depreciation rates are 2.9%
    (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 2012 to December 2012

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	Ö	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	o	
2.	Plant-in-Service/Depreciation Base (A)	\$21,739,737	\$21,739,737	\$21,739,737	\$21,739,737	\$21,739,737	\$21,739,737	\$21,739,737	\$21,739,737	\$21,739,737	\$21,739,737	\$21,739,737	\$21,739,737	\$21,739,737	
3.	Less: Accumulated Depreciation	(5,531,197)	(5,572,839)	(5,614,481)	(5,656,123)	(5,697,765)	(5,739,407)	(5,781,049)	(5,822,691)	(5,864,333)	(5,905,975)		(5,989,259)	(6,030,901)	
4.	CWIP - Non-Interest Bearing	0	o	0	o o	o o	) o	` oʻ	0	0	(_,,,	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	\$16,208,540	16,166,898	16,125,256	16,083,614	16,041,972	16,000,330	15,958,688	15,917,046	15,875,404	15,833,762	15,792,120	15,750,478	15,708,836	
6.	Average Net Investment		16,187,719	16,146,077	16,104,435	16,062,793	16,021,151	15,979,509	15,937,867	15,896,225	15,854,583	15,812,941	15,771,299	15,729,657	
7.	Return on Average Net Investment														
	<ul> <li>a. Equity Component Grossed Up For Ta:</li> </ul>		117,615	117,312	117,009	116,707	116,404	116,102	115,799	115,497	115.194	114.892	114.589	114.286	\$1,391,406
	b. Debt Component Grossed Up For Taxe	es (C)	39,557	39,456	39,354	39,252	39,150	39,049	38,947	38,845	38,743	38,642	38,540	38,438	467,973
8.	Investment Expenses														
	Depreciation (D)		41,642	41,642	41,642	41,642	41,642	41,642	41,642	41,642	41,642	41,642	41,642	41,642	499.704
	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	ō	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 (Line	es 7 + 8)	198,814	198,410	198,005	197,601	197,196	196,793	196,388	195,984	195,579	195,176	194,771	194.366	2.359.083
	<ul> <li>a. Recoverable Costs Allocated to Energy</li> </ul>		198,814	198,410	198,005	197,601	197,196	196,793	196,388	195,984	195,579	195,176	194,771	194.366	2,359,083
	<ul> <li>Recoverable Costs Allocated to Demar</li> </ul>	nd	0	0	0	0	0	0	٥	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs	(E)	198,772	198,397	198,001	197,576	196,959	196,408	195,983	195,507	195,251	194,911	194,750	194,361	2,356,876
13.	Retail Demand-Related Recoverable Cost		. 0	0	0	0	0	0	0	0	0	0	0	0.,557	0
14.	Total Jurisdictional Recoverable Costs (Lin	nes 12 + 13)	\$198,772	\$198,397	\$198,001	\$197,576	\$196,959	\$196,408	\$195,983	\$195,507	\$195,251	\$194,911	\$194,750	\$194,361	\$2,356,876
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- (A) Applicable depreciable base for Big Bend; accounts 311.45 (\$39,818) and 312.45 (\$21,699,919)
- (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rates are 1.5% and 2.3%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

#### Tampa Electric Company

Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2012 to December 2012

Return on Capital Investments, Depreciation and Taxes For Project: Big Bend NO<sub>x</sub> Emissions Reduction (in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<ul> <li>b. Clearings to Plant</li> </ul>		0	0	0	0	0	D	0	0	0	0	0	0	\$0
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	\$3,190,852	\$3,190,852	\$3,190,852	\$3,190,852	\$3,190,852	\$3,190,852	\$3,190,852	\$3,190,852	\$3,190,852	\$3,190,852	\$3.190.852	\$3,190,852	\$3,190,852	
3.	Less: Accumulated Depreciation	2,605,227	2,596,888	2,588,549	2,580,210	2,571,871	2,563,532	2,555,193	2,546,854	2,538,515	2,530,176	2,521,837	2.513.498	2,505,159	
4.	CWIP - Non-Interest Bearing	0	0	0	٥	0	0	0	0	0	0	0	0	0	
5.	Net investment (Lines 2 + 3 + 4)	\$5,796,079	5,787,740	5,779,401	5,771,062	5,762,723	5,754,384	5,746,045	5,737,706	5,729,367	5,721,028	5,712,689	5,704,350	5,696,011	
6.	Average Net Investment		5,791,910	5,783,571	5,775,232	5,766,893	5,758,554	5,750,215	5,741,876	5,733,537	5,725,198	5,716,859	5,708,520	5,700,181	
7.	Return on Average Net Investment														
	<ul> <li>Equity Component Grossed Up For Ta</li> </ul>	xes (B)	42,082	42,021	41,961	41,900	41,840	41,779	41,719	41,658	41.597	41,537	41.476	41,416	\$500.986
	b. Debt Component Grossed Up For Tax	es (C)	14,153	14,133	14,113	14,092	14,072	14,052	14,031	14,011	13,990	13,970	13,950	13,929	168,496
8.	Investment Expenses														
	Depreciation (D)		8,339	8,339	8,339	8 339	8,339	8,339	8,339	8,339	8,339	8.339	8.339	8,339	100.068
	b. Amortization		0	0	0	0	0	٥	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	٥	0	0	0
	e. Other		0	0	0	0	. 0	0	0	0	0	0	0	0	0_
9.	Total System Recoverable Expenses (Line	es 7 + 8)	64,574	64,493	64,413	64,331	64,251	64,170	64,089	64.008	63,926	63,846	63,765	63,684	769,550
	<ul> <li>a. Recoverable Costs Allocated to Energy</li> </ul>	1	64,574	64,493	64,413	64,331	64,251	64,170	64,089	64,008	63,926	63,846	63,765	63,684	769,550
	b. Recoverable Costs Allocated to Demai	nd	0	0	0	D	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0 9987957	0.9980413	0.9979397	0.9975653	0.9983219	0 9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs	(E)	64,560	64,489	64,412	64,323	64,174	64,044	63.957	63,852	63.819	63,759	63,758	63.682	768,829
13.	Retail Demand-Related Recoverable Cost		0	0	0	0	0.,	0.,017	0	00,002	0	00,700	00,730	03,002	700,629
14.	Total Jurisdictional Recoverable Costs (Lin	nes 12 + 13)	\$64,560	\$64,489	\$64,412	\$64,323	\$64,174	\$64,044	\$63,957	\$63,852	\$63,819	\$63,759	\$63,758	\$63.682	\$768,829
					•				<u> </u>		1	,		7-3,502	Ţ. 55,0 <u>25</u>

- (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 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rates are 3.3%, 3.1%, and 2.6%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$10,000	\$715 000	\$15,000	\$15,000	\$15,000	\$15,000	\$715,000	\$1,500,000
	b. Clearings to Plant		٥	٥	ō	0	٥	0	0	0	0	0	0	0	\$0
	c. Retirements		٥	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)	\$8,517,765	\$8,517,765	\$8,517,765	\$8,517,765	\$8,517,765	\$8,517,765	\$8.517.765	\$8,517,765	\$8,517,765	\$8,517,765	\$8,517,765	\$8,517,765	\$8.517.765	
3.	Less: Accumulated Depreciation	(1,722,767)	(1,744,059)	(1,765,351)	(1,786,643)	(1,807,935)	(1,829,227)	(1,850,519)	(1,871,811)		(1,914,395)		(1,956,979)	(1,978,271)	
4.	CWIP - Non-Interest Bearing	0	0	0	D	0	۵	10,000	725,000	740,000	755,000	770,000	785,000	1,500,000	
5.	Net Investment (Lines 2 + 3 + 4)	\$6,794,998	6,773,706	6,752,414	6,731,122	6,709,830	6,688,538	6,677,246	7,370,954	7,364,662	7,358,370	7,352,078	7,345,786	8,039,494	
6.	Average Net Investment		6,784,352	6,763,060	6,741,768	6,720,476	6,699,184	6,682,892	7,024,100	7,367,808	7,361,516	7,355,224	7,348,932	7,692,640	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Ta	xes (B)	49,293	49,138	48,983	48,829	48.674	48,556	51,035	53,532	53,486	53,441	53,395	55.892	\$614,254
	b. Debt Component Grossed Up For Tax	es (C)	16,579	16,527	16,475	16,423	16,371	16,331	17,165	18,004	17,989	17,974	17,958	18,798	206,594
_													ŕ		·
8.	Investment Expenses														
	a. Depreciation (D) b. Amortization		21,292 0	21,292 0	21,292	21,292	21,292	21,292	21,292	21,292	21,292	21,292	21,292	21,292	255,504
	c. Dismantlement		0	0	0	0	0	0	0	0 n	0	0	0	0	0
	d. Property Taxes		0	ň	0	0	0	0	0	0	0	0	0	0	0
	e. Other		ō	ŏ	ő	ő	ő	Ö	0	ñ	0	0	0	0	0
		•						<del></del>				····			
9.	Total System Recoverable Expenses (Line		87,164	86,957	86,750	86,544	86,337	86,179	89,492	92,828	92,767	92,707	92,645	95,982	1,076,352
	a. Recoverable Costs Allocated to Energy		87,164	86,957	86,750	86,544	86,337	86,179	89,492	92,828	92,767	92,707	92,645	95,982	1,076,352
	b. Recoverable Costs Allocated to Demai	nd	0	0	0	0	0	0	0	0	٥	0	0	0	0
10.	Energy Jurisdictional Factor		0.9997895	0 9999343	0.9999774	0.9998727	0 9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs	(E)	87,146	86,951	86,748	86.533	86,233	86,010	89,308	92,602	92,611	92,581	92,635	95,979	1,075,337
13.	Retail Demand-Related Recoverable Cost			0	0	0	0	0	0	02,002	0	0	02,000	00,070	1,070,007
14.	Total Jurisdictional Recoverable Costs (Lin	nes 12 + 13)	\$87,146	\$86,951	\$86,748	\$86,533	\$86,233	\$86,010	\$89,308	\$92,602	\$92,611	\$92,581	\$92,635	\$95,979	\$1,075,337

- Notes:
  (A) Applicable depreciable base for Big Bend; accounts 312.41 (\$1,513,263), 312.42 (\$5,153,072), 312.43 (\$955,619), 315.41 (\$17,504), 315.44 (\$351,594), and 315.43 (\$526,713)
  - (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
  - (C) Line 6 x 2.9324% x 1/12.
  - (D) Applicable depreciation rates are 3.3%, 3.1%, 2.6%, 2.5%, 2.1%, and 2.5%
  - (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 2012 to December 2012

Return on Capital Investments, Depreciation and Taxes For Project: Palk NO<sub>x</sub> Emissions Reduction (in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	so	\$0	\$0	\$0	\$0
	<ul> <li>b. Clearings to Plant</li> </ul>		0	0	0	0	0	0	0	Ò	0	0	ō	0	**
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	Ö	
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	\$1,561,473	\$1,561,473	\$1,561,473	\$1.561,473	\$1,561,473	\$1.561.473	\$1,561,473	\$1,561,473	\$1.561.473	\$1,561,473	\$1,561,473	\$1,561,473	\$1,561,473	
3.	Less: Accumulated Depreciation	(417,882)	(422, 306)	(426,730)	(431,154)	(435,578)	(440,002)		(448,850)	(453,274)	(457,698)	(462,122)	(466,546)	(470,970)	
4.	CWIP - Non-Interest Bearing	0	Ò	Ò	o o	0	O	0	0	0	0	0	(-100,0-10)	(4, 0, 0, 0, 0,	
5.	Net Investment (Lines 2 + 3 + 4)	\$1,143,591	1,139,167	1,134,743	1,130,319	1,125,895	1,121,471	1,117,047	1,112,623	1,108,199	1,103,775	1,099,351	1,094,927	1,090,503	
6.	Average Net Investment		1,141,379	1,136,955	1,132,531	1,128,107	1,123,683	1,119,259	1,114,835	1,110,411	1,105,987	1,101,563	1,097,139	1,092,715	
7.	Return on Average Net investment														
	a. Equity Component Grossed Up For Ta	ixes (B)	8,293	8,261	8,229	8,196	8,164	8,132	8,100	8.068	8.036	8.004	7,971	7,939	\$97,393
	b. Debt Component Grossed Up For Tax	es (C)	2,789	2,778	2,768	2,757	2,746	2,735	2,724	2,713	2,703	2,692	2,681	2,670	32,756
8.	Investment Expenses														
	a. Depreciation (D)		4,424	4,424	4,424	4,424	4.424	4,424	4,424	4,424	4,424	4,424	4,424	4.424	53,088
	b. Amortization		. 0	. 0	. 0	. 0	0	0	0	0	., ·	0	,,,_,	-,-2-	00,000
	c. Dismantlement		0	0	0	0	0	0	0	Ô	0	ŏ	ō	Ö	ŏ
	d. Property Taxes		0	0	٥	0	0	0	0	0	0	0	o o	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)	15,506	15,463	15,421	15.377	15.334	15,291	15.248	15,205	15.163	15,120	15,076	15,033	183,237
	a. Recoverable Costs Allocated to Energ	у	15,506	15,463	15,421	15,377	15,334	15,291	15,248	15,205	15.163	15,120	15,076	15,033	183,237
	<ul> <li>Recoverable Costs Allocated to Dema</li> </ul>	nd	٥	0	0	0	0	0	٥	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs	; (E)	15,503	15,462	15,421	15,375	15,316	15,261	15,217	15,168	15,138	15.099	15,074	15,033	183,067
13.	Retail Demand-Related Recoverable Cos		0		0	0	0	0	0	0	0	0	0	0,000	0
14.	Total Jurisdictional Recoverable Costs (Li	nes 12 + 13)	\$15,503	\$15,462	\$15,421	\$15,375	\$15,316	\$15,261	\$15,217	\$15,168	\$15,138	\$15,099	\$15,074	\$15,033	\$183,067
														* ,	

- (A) Applicable depreciable base for Polk; account 342.81
- (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 3.4%
  (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 2012 to December 2012

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<ul> <li>b. Clearings to Plant</li> </ul>		0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements		0	0	0	0	0	0	0	a	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	(448,850)	(453,967)	(459,084)	(464,201)	(469,318)	(474,435)	(479,552)	(484,669)	(489,786)	(494,903)	(500,020)	(505,137)	(510,254)	
4.	CWIP - Non-interest Bearing	0	0	0	0	. 0	o	o o	) o	Ď	` o´	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	\$2,109,880	2,104,763	2,099,646	2,094,529	2,089,412	2,084,295	2,079,178	2,074,061	2,068,944	2,063,827	2,058,710	2,053,593	2,048,476	
6.	Average Net Investment		2,107,322	2,102,205	2,097,088	2,091,971	2,086,854	2,081,737	2,076,620	2,071,503	2,066,386	2,061,269	2,056,152	2,051,035	
7.	Return on Average Net Investment														
	<ul> <li>Equity Component Grossed Up For Ta</li> </ul>	ixes (B)	15,311	15,274	15,237	15,200	15,162	15,125	15,088	15,051	15.014	14.976	14,939	14,902	\$181,279
	b. Debt Component Grossed Up For Tax	es (C)	5,150	5,137	5,125	5,112	5,100	5,087	5,075	5,062	5,050	5,037	5,025	5,012	60,972
8.	Investment Expenses														
	a. Depreciation (D)		5,117	5,117	5,117	5,117	5,117	5,117	5,117	5.117	5.117	5.117	5.117	5.117	61,404
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0,	0,,10,
	c. Dismantlement		0	0	0	0	٥	0	0	0	Ō	٥	ō	0	ō
	d. Property Taxes		0	0	0	0	0	0	0	٥	0	O.	Ó	Ō	Ō
	e. Other		0	0	0	0_	0	0	0	0	0		0	0	0
9.	Total System Recoverable Expenses (Lin	es 7 + 8)	25,578	25,528	25,479	25,429	25,379	25,329	25,280	25,230	25,181	25,130	25.081	25.031	303,655
	a. Recoverable Costs Allocated to Energ		25,578	25,528	25,479	25,429	25,379	25,329	25,280	25,230	25 181	25,130	25,081	25,031	303,655
	b. Recoverable Costs Allocated to Dema	nd	0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs	(E)	25,573	25.526	25,478	25,426	25,348	25,279	25,228	25,169	25,139	25,096	25,078	25,030	303,370
13.	Retail Demand-Related Recoverable Cos		0	0	. 0	0	0	0	0	0	0	0	20,0.0	0	0
14.	Total Jurisdictional Recoverable Costs (Li	nes 12 + 13)	\$25,573	\$25,526	\$25,478	\$25,426	\$25,348	\$25,279	\$25,228	\$25,169	\$25,139	\$25,096	\$25,078	\$25,030	\$303,370
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- (A) Applicable depreciable base for Big Bend; account 312.44
  (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 2.4%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

#### Tampa Electric Company

Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2012 to December 2012

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments														
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Retirements		0	0	0	0	0	0	0	0	0	٥	0	0	
	d. Other		0	0	0	0	0	D	0	0	0	0	0	0	
2.	Plant-in-Service/Depreciation Base (A)	\$1,649,121	\$1,649,121	\$1,649,121	\$1,649,121	\$1,649,121	\$1,649,121	\$1,649,121	\$1,649,121	\$1,649,121	\$1,649,121	\$1,649,121	\$1,649,121	\$1,649,121	
3.	Less: Accumulated Depreciation	(269,845)	(274,380)	(278,915)	(283,450)	(287,985)	(292,520)	(297,055)	(301,590)	(306,125)	(310,660)	(315,195)	(319,730)	(324,265)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0		0	
5.	Net Investment (Lines 2 + 3 + 4)	\$1,379,276	1,374,741	1,370,206	1,365,671	1,361,136	1,356,601	1,352,066	1,347,531	1,342,996	1,338,461	1,333,926	1,329,391	1,324,856	
6.	Average Net Investment		1,377,009	1,372,474	1,367,939	1,363,404	1,358,869	1,354,334	1,349,799	1,345,264	1,340,729	1,336,194	1,331,659	1,327,124	
7.	7. Return on Average Net investment														
	a. Equity Component Grossed Up For Ta	ixes (B)	10,005	9,972	9,939	9,906	9,873	9,840	9,807	9,774	9,741	9,708	9,675	9,642	\$117,882
	b. Debt Component Grossed Up For Tax	es (C)	3,365	3,354	3,343	3,332	3,321	3,310	3,298	3,287	3,276	3,265	3,254	3,243	39,648
8.	Investment Expenses														
	a. Depreciation (D)		4,535	4,535	4,535	4,535	4,535	4,535	4,535	4,535	4,535	4,535	4,535	4,535	54,420
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	٥
	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	
9.	Total System Recoverable Expenses (Lin	es 7 + 8)	17,905	17,861	17,817	17 773	17,729	17,685	17,640	17,596	17,552	17,508	17,464	17,420	211,950
	<ul> <li>a. Recoverable Costs Allocated to Energ</li> </ul>		17,905	17,861	17,817	17,773	17,729	17,685	17,640	17,596	17,552	17,508	17,464	17,420	211,950
	b. Recoverable Costs Allocated to Dema	nd	0	0	0	0	0	0	0	0	0	0	0	С	О
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs	(E)	17,901	17,860	17,817	17,771	17,708	17,650	17,604	17,553	17,523	17,484	17,462	17,420	211,753
13.	Retail Demand-Related Recoverable Cos		Ö	Ō	Ó	. 0	0	0	0	. 0	Ó	0	. 0	0	0_
14.	Total Jurisdictional Recoverable Costs (Li	nes 12 + 13)	\$17,901	\$17,860	\$17,817	\$17,771	\$17,708	\$17,650	\$17,604	\$17,553	\$17,523	\$17,484	\$17,462	\$17,420	\$211,753
		·													

- (A) Applicable depreciable base for Big Bend, account 312.41
  (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 3.3%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

# Tampa Electric Company Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2012 to December 2012

#### 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														
	Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	\$0
	c. Retirements d. Other		U N	0	0	0	0	0	0	0	0	0	0	0	
	a. Other		U	Ü	U	U	U	U	U	U	U	U	U	U	
2.	Plant-in-Service/Depreciation Base (A)	\$1,581,887	\$1,581,887	\$1,581,887	\$1,581,887	\$1,581,887	\$1,581,887	\$1,581,887	\$1,581,887	\$1,581,887	\$1,581,887	\$1,581,887	\$1,581,887	\$1,581,887	
3.	Less: Accumulated Depreciation	(243,176)	(247,263)	(251,350)	(255,437)	(259,524)	(263,611)	(267,698)	(271,785)	(275,872)	(279,959)	(284,046)	(288,133)	(292,220)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0_	0	0	0	0	0	0	0	
5.	Net Investment (Lines 2 + 3 + 4)	\$1,338,711	1,334,624	1,330,537	1,326,450	1,322,363	1,318,276	1,314,189	1,310,102	1,306,015	1,301,928	1,297,841	1,293,754	1,289,667	
6.	Average Net Investment		1,336,668	1,332,581	1,328,494	1,324,407	1,320,320	1,316,233	1,312,146	1,308,059	1,303,972	1,299,885	1,295,798	1,291,711	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Ta	xes (B)	9,712	9,682	9,652	9,623	9,593	9,563	9,534	9,504	9,474	9,445	9,415	9,385	\$114,582
	b. Debt Component Grossed Up For Tax		3,266	3,256	3,246	3,236	3,226	3,216	3,206	3,196	3,186	3,176	3,166	3,157	38,533
8.	Investment Expenses														10.011
	a. Depreciation (D)		4,087	4,087	4,087	4,087	4,087	4,087	4,087	4,087	4,087	4,087	4,087	4,087	49,044
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	U	0	0	0	U	0	0	0	0	0	0
	d. Property Taxes e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Ottlei			U	- 0	- 0		- 0			<u>U</u>				
9.	Total System Recoverable Expenses (Line	es 7 + 8)	17.065	17,025	16,985	16,946	16,906	16,866	16,827	16,787	16,747	16,708	16,668	16,629	202,159
	a. Recoverable Costs Allocated to Energy		17,065	17,025	16,985	16,946	16,906	16,866	16,827	16,787	16,747	16,708	16,668	16,629	202,159
	b. Recoverable Costs Allocated to Dema	ndi	0	0	0	0	0	0	0	0	0	0	o	٥	0
										0.0075050	0.0000040	0.0000400	0.0000047	0.0000707	
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727 0.9958152	0.9987957 0.9958152	0.9980413 0.9958152	0.9979397 0.9958152	0.9975653 0.9958152	0.9983219 0.9958152	0.9986438 0.9958152	0.9998917 0.9958152	0.9999727 0.9958152	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9908152	0.9956152	0.8838152	0.9906102	U.9908152	0.9906102	0.8890102	0.8830132	
12.	Retail Energy-Related Recoverable Costs (E)		17,061	17,024	16,985	16,944	16,886	16,833	16,792	16,746	16,719	16,685	16,666	16,629	201,970
13.	Retail Demand-Related Recoverable Cost		. 0	0	. 0	.0		0	Ō	0	0	0	0_	0	0_
14.	Total Jurisdictional Recoverable Costs (Li	nes 12 + 13)	\$17,061	\$17,024	\$16,985	\$16,944	\$16,886	\$16,833	\$16,792	\$16,746	\$16,719	\$16,685	\$16,666	\$16,629	\$201,970
															_

- (A) Applicable depreciable base for Big Bend; account 312.42
- (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 3.1%
- (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 2012 to December 2012

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

Li	ine	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
	1.	Investments														
		a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	0
		c. Retirements		٥	0	0	0	0	0	0	D	0	٥	0	0	
		d. Other		0	0	0	0	0	0	0	0	0	0	0	0	
	2.	Plant-in-Service/Depreciation Base (A)	\$2,706,507	\$2,706,507	\$2,706,507	\$2,706,507	\$2,706,507	\$2,706,507	\$2,706,507	\$2,706,507	\$2,706,507	\$2,706,507	\$2,706,507	\$2,706,507	\$2,706,507	
	3.	Less: Accumulated Depreciation	(259,586)	(265,391)	(271,196)	(277,001)	(282,806)	(288,611)	(294,416)	(300,221)	(306,026)	(311,831)	(317,636)	(323,441)	(329,246)	
	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)	\$2,446,921	2,441,116	2,435,311	2,429,506	2,423,701	2,417,896	2,412,091	2,406,286	2,400,481	2,394,676	2,388,871	2,383,066	2,377,2 <u>61</u>	
	6.	Average Net Investment		2,444,019	2,438,214	2,432,409	2,426,604	2,420,799	2,414,994	2,409,189	2,403,384	2,397,579	2,391,774	2,385,969	2,380,164	
	7.	Return on Average Net Investment														
		a. Equity Component Grossed Up For Ta	xes (B)	17,757	17 715	17,673	17,631	17,589	17,547	17,504	17,462	17,420	17,378	17,336	17,293	\$210,305
		b. Debt Component Grossed Up For Tax	es (C)	5,972	5,958	5,944	5,930	5,916	5,901	5,887	5,873	5,859	5,845	5,831	5,816	70,732
	8.	Investment Expenses														
		a. Depreciation (D)		5,805	5,805	5,805	5,805	5,805	5,805	5,805	5,805	5,805	5,805	5,805	5,805	69,660
		b. Amortization		0	0	0	0	0	0	0	0	0	0	0	٥	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		00_	0	0	0	0	0	0	0	0	. 0	0	0	0
	9.	Total System Recoverable Expenses (Line	es 7 + 8)	29,534	29,478	29,422	29,366	29,310	29,253	29,196	29,140	29,084	29,028	28,972	28,914	350,697
		a. Recoverable Costs Allocated to Energy	у .	29,534	29,478	29,422	29,366	29,310	29,253	29,196	29,140	29,084	29,028	28,972	28,914	350,697
		b. Recoverable Costs Allocated to Dema	nd	0	0	0	0	0	0	0	0	0	0	0	0	0
	10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
	11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0,9958152	0.9958152	
	12.	Retail Energy-Related Recoverable Costs	(E)	29,528	29.476	29,421	29,362	29,275	29,196	29,136	29,069	29,035	28,989	28,969	28,913	350,369
	13.	Retail Demand-Related Recoverable Cost		0	0	20, 121	0	0	0	0	0	0	0	0	0	0_
	14.	Total Jurisdictional Recoverable Costs (Li		\$29,528	\$29,476	\$29,421	\$29,362	\$29,275	\$29,196	\$29,136	\$29,069	\$29,035	\$28,989	\$28,969	\$28,913	\$350,369

- (A) Applicable depreciable base for Big Bend; account 312.43 (\$1,995,677) and 315.43 (\$710,830)
  (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 2.6% and 2.5% (E) Line 9a x Line 10
- (F) Line 9b x Line 11

#### 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														
	Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	\$0
	c. Retirements		0	0	0	0	0	0	0	0	0	Ü	0	0	
	d. Other		0	0	0	0	0	0	0	0	0	0	U	0	
2.	Plant-in-Service/Depreciation Base (A)	\$84,099,312	\$84,099,312	\$84,099,312	\$84,099,312	\$84,099,312	\$84,099,312	\$84,099,312	\$84,099,312		\$84,099,312	\$84,099,312	\$84,099,312	\$84,099,312	
3.	Less: Accumulated Depreciation	(3,694,635)	(3,881,048)	(4,067,461)	(4,253,874)	(4,440,287)	(4,626,700)	(4,813,113)	(4,999,526)	(5,185,939)	(5,372,352)	(5,558,765)	(5,745,178)	(5,931,591)	
4.	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0		0	00_	
5.	Net Investment (Lines 2 + 3 + 4)	\$80,404,677	80,218,264	80,031,851	79,845,438	79,659,025	79,472,612	79,286,199	79,099,786	78,913,373	78,726,960	78,540,547	78,354,134	78,167,721	
6.	Average Net Investment		80,311,471	80,125,058	79,938,645	79,752,232	79,565,819	79,379,406	79,192,993	79,006,580	78,820,167	78,633,754	78,447,341	78,260,928	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxes (B)		583,516	582,162	580,808	579,453	578,099	576,744	575,390	574,035	572,681	571,327	569,972	568,618	\$6,912,805
	b. Debt Component Grossed Up For Taxes (C)		196,254	195,799	195,343	194,888	194,432	193,977	193,521	193,066	192,610	192,155	191,699	191,2 <del>44</del>	2,324,988
8.	Investment Expenses														
	a. Depreciation (D)		186,413	186,413	186,413	186,413	186,413	186,413	186,413	186,413	186,413	186,413	186,413	186,413	2,236,956
	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	<u> </u>	
9.	Total System Recoverable Expenses (Lines 7 + 8)		966,183	964.374	962,564	960,754	958,944	957,134	955,324	953,514	951,704	949,895	948,084	946,275	11,474,749
	a. Recoverable Costs Allocated to Energy		966, 183	964 374	962,564	960,754	958,944	957 134	955,324	953,514	951,704	949,895	948,084	946,275	11,474,749
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	C
10.	Energy Jurisdictional Factor		0.9997895	0 9999343	0.9999774	0.9998727	0.9987957	0 9980413	0 9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
40	British Forest Bulated Bases and Costs (F)		965,980	964,311	962,542	960,632	957.789	955,259	953,356	951,192	950,107	948,607	947.981	946,249	11,464,005
12.	Retail Energy-Related Recoverable Costs (E) Retail Demand-Related Recoverable Costs (F)		905,900	504,311 n	902,342 D	900,032	937,769	900,209	933,330 N	001,102 N	330,107	0-10,007 0	347,301	0-10,2-10	0
13.	Total Jurisdictional Recoverable Costs (Lines 12 +	13)	\$965,980	\$964.311	\$962.542	\$960.632	\$957.789	\$955,259	\$953,356	\$951.192	\$950.107	\$948.607	\$947,981		\$11,464,005
14.	TOTAL JULISUICIONAL RECOVERABLE COSIS (LINES 12 T	10)	4000,000	4004 ST	WOJZ, 34Z	₩ <i>5</i> 00,002	WWW7,700	W-00,200	<b>\$000,000</b>	\$001,10Z	4030,101	7570,001	<b>44 11 ,00 1</b>		

#### Notes:

- (A) Applicable depreciable base for Big Bend; account 311.41 (\$25,152,322), 312.41 (\$52,950,343), 315.41 (\$5,040,180), and 316.41 (\$956,467).

  (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 1.4%, 3.3%, 2.5% and 1.2% (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 2012 to December 2012

### 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	Period  Total
1.	Investments a. Expenditures/Additions b. Clearings to Plant c. Retirements		\$500,000 0 0	\$0 0 0	\$500,000 0 0	<b>\$</b> 0 0 0	\$0 0 0	\$500,000 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$500,000 2,000,000 0	\$2,000,000 \$2,000,000
	d. Other		0	0	0	0	0	0	0	0	0	0	U	U	
2. 3. 4. 5	Plant-in-Service/Depreciation Base (A) Less: Accumulated Depreciation CWIP - Non-Interest Bearing Net Investment (Lines 2 + 3 + 4)	\$92,352,524 (5,415,611) 0 \$86,936,913	\$92,352,524 (5,613,842) 500,000 87,238,682	\$92,352,524 (5,812,073) 500,000 87,040,451	\$92,352,524 (6,010,304) 1,000,000 87,342,220	\$92,352,524 (6,208,535) 1,000,000 87,143,989	\$92,352,524 (6,406,766) 1,000,000 86,945,758	\$92,352,524 (6,604,997) 1,500,000 87,247,527	\$92,352,524 (6,803,228) 1,500,000 87,049,296	\$92,352,524 (7,001,459) 1,500,000 86,851,065	\$92,352,524 (7,199,690) 1,500,000 86,652,834	\$92,352,524 (7,397,921) 1,500,000 86,454,603	\$92,352,524 (7,596,152) 1,500,000 86,256,372	\$94,352,524 (7,794,383) 0 86,558,141	
6.	Average Net Investment		87,087,798	87,139,567	87,191,336	87,243,105	87,044,874	87,096,643	87,148,412	86,950,181	86,751,950	86,553,719	86,355,488	86,407,257	
7.	Return on Average Net Investment a. Equity Component Grossed Up For Ta b. Debt Component Grossed Up For Ta		632,751 212,814	633,127 212,940	633,503 213,067	633,879 213,193	632,439 212,709	632,815 212,835	633,191 212,962	631,751 212,477	630,311 211,993	528,870 211,508	627,430 211,024	627,806 211,151	\$7,577,873 2,548,673
8.	Investment Expenses a. Depreciation (D) b. Amortization c. Dismantlement d. Property Taxes e. Other	_	198,231 0 0 0 0	198,231 0 0 0 0	198,231 0 0 0 0	198,231 0 0 0 0	198,231 0 0 0 0	198,231 0 0 0 0	198,231 0 0 0 0	198,231 0 0 0 0	198,231 0 0 0 0	198,231 0 0 0 0	198,231 0 0 0 0	198,231 0 0 0	2,378,772 0 0 0 0
9.	Total System Recoverable Expenses (Li a. Recoverable Costs Allocated to Energ b. Recoverable Costs Allocated to Demo	gy	1,043,796 1,043,796 0	1,044,298 1,044,298 0	1,044,801 1,044,801 0	1,045,303 1,045,303 0	1,043,379 1,043,379 0	1,043,881 1,043,881 0	1,044,384 1,044,384 0	1,042,459 1,042,459 0	1,040,535 1,040,535 0	1,038,609 1,038,609 0	1,036,685 1,036,685 0	1,037,188 1,037,188 0	12,505,318 12,505,318 0
10. 11.	Energy Jurisdictional Factor Demand Jurisdictional Factor		0.9997895 0.9958152	0.9999343 0.9958152	0.9999774 0.9958152	0.9998727 0.9958152	0.9987957 0.9958152	0.9980413 0.9958152	0.9979397 0.9958152	0.9975653 0.9958152	0,9983219 0,9958152	0.9986438 0.9958152	0.9998917 0.9958152	0.9999727 0.9958152	
12. 13.	Retail Energy-Related Recoverable Cost Retail Demand-Related Recoverable Co	sts (F)	1,043,576	1,044,229 0	1,044,777 0 \$1,044,777	1,045,170 0 \$1,045,170	1,042,122 0 \$1,042,122	1,041,836 0 \$1,041,836	1,042,232 0 \$1,042,232	1,039,921 0 \$1,039,921	1,038,789 0 \$1,038,789	1,037,200 0 \$1,037,200	1,036,573 0 \$1,036,573	1,037,160 0 \$1,037,160	12,493,585 0 \$12,493,585
14.	Total Jurisdictional Recoverable Costs (I	Lines 12 + 13)	\$1,043,576	\$1,044,229	\$1,044,777	\$1,045,170	41,042,122	Ø1,041,030	#1,042,232	\$1,035,5Z1	\$1,000,70a	\$1,001,200	41,000,070	71,001,100	7.2,.55,550

- Notes:

  (A) Applicable depreciable base for Big Bend; account 311.42 (\$25,208,869), 312.42 (\$52,270,612), 315.42 (\$15,914,427), and 316.42 (\$958,616).

  (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).

  - (C) Line 6 x 2.9324% x 1/12. (D) Applicable depreciation rates are 1.6%, 3.1%, 2.5% and 2.0%.
  - (E) Line 9a x Line 10
  - (F) Line 9b x Line 11

#### Tampa Electric Company Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2012 to December 2012

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments												**	**	*0
	Expenditures/Additions		- \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0 0	\$0 0	\$0 0	\$0	\$0 0	\$0 0
	b. Cleanings to Plant		0	0	0	0	0	Ü	0	0	0	0	0	0	v
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	ň	
	d. Other		U	U	U	U	v	v	Ū	· ·	J	v	J	-	
2.	Plant-in-Service/Depreciation Base (A)	\$80,159,055	\$80,159,055	\$80,159,055	\$80,159,055	\$80,159,055	\$80,159,055			\$80,159,055	\$80,159,055	\$80,159,055	\$80,159,055	\$80,159,055	-
3.	Less: Accumulated Depreciation	(6,400,212)	(6,547,514)	(6,694,816)	(6,842,118)	(6,989,420)	(7,136,722)	(7,284,024)	(7.431,326)	(7,578,628)	(7,725,930)	(7,873,232)	(8,020,534)	(8,167,836)	
4.	CWIP - Non-interest Bearing		0	0	0	0	0	0	0	0	0	0	70 400 504	74.004.240	
5.	Net Investment (Lines 2 + 3 + 4)	\$73,758,843	73,611,541	73,464,239	73,316,937	73,169,635	73,022,333	72,875,031	72,727,729	72,580,427	72,433,125	72,285,823	72,138,521	71,991,219	
6.	Average Net Investment		73,685,192	73,537,890	73,390,588	73,243,286	73,095,984	72,948,682	72,801,380	72,654,078	72,506,776	72,359,474	72,212,172	72,064,870	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Ta	xes (B)	535,372	534,302	533,232	532,161	531,091	530,021	528,951	527,880	526,810	525,740	524,670	523,599	\$6,353,829
	<ul> <li>b. Debt Component Grossed Up For Tax</li> </ul>	es (C)	180,062	179,702	179,342	178,982	178,622	178,262	177,902	177,542	177,182	176,822	176,462	176,103	2,136,985
8.	Investment Expenses														
•	a. Depreciation (D)		147.302	147.302	147.302	147,302	147,302	147,302	147,302	147,302	147,302	147,302	147,302	147,302	1,767,624
	b. Amortization		0	. 0	. 0	٥	0	0	0	0	0	0	0	0	0
	c. Dismantlement		0	0	0	0	0	0	0	0	0	0	0	0	Ō
	d. Property Taxes		0	0	0	0	0	0	0	0	0	0	Ō	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lin	os 7 + 8)	862,736	861,306	859,876	858,445	857.015	855.585	854,155	852,724	851,294	849.864	848,434	847,004	10,258,438
J.	a. Recoverable Costs Allocated to Energy		862,736	861,306	859,876	858,445	857,015	855,585	854,155	852,724	851,294	849,864	848,434	847,004	10,258,438
	b. Recoverable Costs Allocated to Dema		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0 9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
10.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
11.	perior deliberational Lactor		5.555015 <u>Z</u>	5.5550102	J.,1200101										
12.	Retail Energy-Related Recoverable Costs	s (E)	862,554	861,249	859,857	858,336	855,983	853,909	852,395	850,648	849,865	848,711	848,342	846,981	10,248,830
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)	\$862,554	\$861,249	\$859,857	\$858,336	\$855,983	\$853,909	\$852,395	\$850,648	\$849,865	\$848,711	\$848,342	\$846,981	\$10,248,830

- Notes:

  (A) Applicable depreciable base for Big Bend; account 311.43 (\$21,689,422), 312.43 (\$43,953,995), 315.43 (\$13,690,954), and 316.43 (\$824,684).

  (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).

  - (C) Line 6 x 2.9324% x 1/12.
  - (D) Applicable depreciation rates are 1.2%, 2.6%, 2.5%, and 2.7%
  - (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 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												**	60	*0
	a. Expenditures/Additions		\$0	\$0	\$0	\$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	v
	c. Retirements		0	Ü	U	0	0	0	0	0	0	0	o o	ū	
	d. Other		U	u	U	U	U	v	Ū	v	·	ŭ	ū	<del>-</del>	
2.	Plant-in-Service/Depreciation Base (A)	\$62,853,033	\$62,853,033	\$62,853,033	\$62,853,033	\$62,853,033	\$62,853,033	\$62,853,033	\$62,853,033	\$62,853,033	\$62,853,033	\$62,853,033	\$62,853,033	\$62,853,033	
3.	Less: Accumulated Depreciation	(6,448,484)	(6,557,082)	(6,665,680)	(6,774,278)	(6,882,876)	(6,991,474)	(7,100,072)	(7,208,670)	(7,317,268)	(7,425,866)	(7,534,464)	(7,643,062)	(7,751,660)	
4.	CWIP - Non-Interest Bearing		0	0	0	0	0	0	0	00	0	0	0 65 220 074	55,101,373	
5.	Net Investment (Lines 2 + 3 + 4)	\$56,404,549	56,295,951	56,187,353	56,078,755	55,970,157	55,861,559	55,752,961	55,644,363	55,535,765	55,427,167	55,318,569	55,209,971	55,101,373	
6.	Average Net Investment		56,350,250	56,241,652	56,133,054	56,024,456	55,915,858	55,807,260	55,698,662	55,590,064	55,481,466	55,372,868	55,264,270	55,155,672	
7.	Return on Average Net Investment												404 505	400 740	*4.000.000
	<ul> <li>a. Equity Component Grossed Up For Ta.</li> </ul>		409,422	408,633	407,844	407,055	406,266	405,477	404,688	403,899	403,110	402,321	401,532	400,743 134,782	\$4,860,990 1,634,899
	<ul> <li>b. Debt Component Grossed Up For Taxe</li> </ul>	es (C)	137,701	137,436	137,170	136,905	136,640	136,374	136,109	135,844	135,578	135,313	135,047	134,702	1,034,093
8.	Investment Expenses														
	a. Depreciation (D)		108,598	108,598	108,598	108,598	108,598	108,598	108,598	108,598	108,598	108,598	108,598	108,598	1,303,176
	b. Amortization		0	0	0	0	0	0	0	0	0	0	0	0	0
	<ul> <li>Dismantlement</li> </ul>		0	0	0	C	0	0	0	0	0	0	0	Ü	0
	d. Property Taxes		0	0	0	0	0	0	0	0	0	U	0	0	0
	e. Other				0	0	0	0	U		<u> </u>				<del>_</del>
9	Total System Recoverable Expenses (Line	es 7 + 8)	655,721	654,667	653,612	652,558	651,504	650,449	649,395	648,341	647,286	646,232	645,177	644,123	7,799,065
	a. Recoverable Costs Allocated to Energy		655,721	654,667	653,612	652,558	651,504	650,449	649,395	648,341	647,286	646,232	645,177	644,123	7,799,065
	b. Recoverable Costs Allocated to Demai		0	0	0	0	0	0	0	0	0	0	0	0	-
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs	(E)	655,583	654.624	653.597	652,475	650,719	649,175	648,057	646,762	646,200	645,356	645,107	644,105	7,791,760
13.	Retail Demand-Related Recoverable Cost		0	0	0	. 0	. 0	0	0_	0	. 0	0.	0	0	0
14.	Total Jurisdictional Recoverable Costs (Li		\$655,583	\$654,624	\$653,597	\$652,475	\$650,719	\$649,175	\$648,057	\$646,762	\$646,200	\$645,356	\$645,107	\$644,105	\$7,791,760

#### Notes

- (A) Applicable depreciable base for Big Bend; account 311.44 (\$16,857.250), 312.44 (\$34,665.822), 315.44 (\$10,642,027), and 316.44 (\$687.934).
- (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 1.4%, 2.4%. 2.1%, and 1.7%.
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

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End of

### Tampa Electric Company Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2012 to December 2012

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

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	Period Total
1.	Investments a. Expenditures/Additions		\$1,076,879	\$1,000,000	\$700,000	\$200,000	\$50,000	\$50,000	\$0	\$0 0	\$0 0	\$0 0	\$0 0	\$0	\$3,076,879 15,066,851
	b. Clearings to Plant		13,066,851	1,000,000	700,000	200,000	50,000	50,000	0	0	0	0	0	Ů	10,000,001
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	ň	
	d. Other		0	u	U	U	U	U	·	ŭ	U	•	·	·	
2	Plant-in-Service/Depreciation Base (A)	\$11.566.029	\$24.632.880	\$25,632,880	\$26,332,880	\$26,532,880	\$26,582,880	\$26,632,880	\$26,632,880	\$26,632,880	\$26,632,880	\$26,632,880	\$26,632,880	\$26,632,880	
3	Less: Accumulated Depreciation	(1,095,901)	(1,118,190)	(1,165,524)	(1,214,775)	(1,265,367)	(1,316,343)	(1,367,414)	(1,418,581)	(1,469,748)	(1,520,915)	(1,572,082)	(1,623,249)	(1,674,416)	
4.	CWIP - Non-Interest Bearing	11.989.972	0	0	0	oʻ oʻ	ì o	o o	0	. 0	0	. 0	0	0_	
5.	Net Investment (Lines 2 + 3 + 4)	\$22,460,100	23,514,690	24,467,356	25,118,105	25,267,513	25,266,537	25,265,466	25,214,299	25, 183, 132	25,111,965	25,060,798	25,009,631	24,958,464	
6.	Average Net Investment		22,987,395	23,991,023	24,792,730	25,192,809	25,267,025	25,266,001	25,239,882	25,188,715	25,137,548	25,086,381	25,035,214	24,984,047	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Taxe	s (B)	167,019	174,311	180,136	183,043	183,582	183,574	183,385	183,013	182,641	182,269	181,898	181,526	\$2,166,397
	b. Debt Component Grossed Up For Taxes	(C)	56,174	58,626	60,585	61,563	61,744	61,742	61,678	61,553	61,428	61,303	61,178	61,053	728,627
۰	Investment Expenses														
Ο.	a. Depreciation (D)		22,289	47,334	49,251	50,592	50,976	51,071	51,167	51,167	51,167	51,1 <del>6</del> 7	51,167	51,167	578,515
	b. Amortization		22,209	7,,554	45,25	55,55 <u>2</u>	0.00	0	0.,	0	0	0	. 0	0	0
	c. Dismantlement		Ö	ŏ	ō	ō	ō	ō	ō	0	0	0	0	0	0
	d. Property Taxes		ŏ	ō	ō	0	ō	0	0	0	0	0	0	0	0
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
										005 700	295.236	294,739	294,243	293,746	3,473,539
9.	Total System Recoverable Expenses (Lines	7 + 8)	245,482	280,271	289,972	295 198	296,302	296,387	296,230 296,230	295,733 295,733	295,236	294,739	294,243	293,746	3,473,539
	Recoverable Costs Allocated to Energy		245 482	280,271	289,972	295,198	296,302 0	296,387 0	290,230	295,733	295,236	2 <del>94</del> ,735	254,240	0-1,00g	0,475,500
	<ul> <li>Recoverable Costs Allocated to Demand</li> </ul>		0	0	0	0	U	U	J	U	Ů	Ü	Ü	ū	•
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
40	Retail Energy-Related Recoverable Costs (E	=\	245,430	280.253	289.965	295,160	295,945	295,806	295.620	295,013	294,741	294,339	294,211	293,738	3,470,221
12.	Retail Demand-Related Recoverable Costs		243,430	260,255	209,900	235,100	200,040	255,000	255,520	200,010	0	0	0	0	0
13.	Total Jurisdictional Recoverable Costs (Line	, ,	\$245,430	\$280,253	\$289.965	\$295,160	\$295,945	\$295,806	\$295,620	\$295,013	\$294,741	\$294,339	\$294,211	\$293,738	\$3,470,221
1-4.	LOTER STREET STREET COSTS (THE	J 10)	₩2-10,700	4200,200	4200,000	7222,.00	7227770	+=,							

#### Notes:

- (A) Applicable depreciable base for Big Bend; account 312.44 (\$1,456,209) and 312.45 (\$25,176,671)
- (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 2.4% and 2.3%.
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

### Tampa Electric Company Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2012 to December 2012

Return on Capital Investments, Depreciation and Taxes For Project: Clean Air Mercury Rule (in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	Investments												••	**	\$40,000
	Expenditures/Additions		\$20,000	\$0	\$0	\$0	\$0	\$20,000	\$0	\$0	\$0	<b>\$</b> 0	\$0 0	\$0 D	\$40,000
	b. Clearings to Plant		0	0	0	0	0	0	0	0	0	0	0	0	\$0
	c. Retirements		0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other		0	0	0	0	0	0	0	0	U	U	U	Ū	
2.	Plant-in-Service/Depreciation Base (A)	\$1,169,053	\$1,169,053	\$1,169,053	\$1,169,053	\$1,169,053	\$1,169,053	* -1	\$1,169,053	\$1,169,053	\$1,169,053	\$1,169,053	\$1,169,053	\$1,169,053	
3.	Less: Accumulated Depreciation	(92,424)	(95,347)	(98,270)	(101,193)	(104,116)	(107,039)	(109,962)	(112,885)	(115,808)	(118,731)	(121,654)	(124,577)	(127,500)	
4.	CWIP - Non-Interest Bearing	42,458	62,458	62,458	62,458	62,458	62,458	82,458	82,458	82,458	82,458	82,458	82,458	82,458	
5.	Net Investment (Lines 2 + 3 + 4)	\$1,119,087	1,136,164	1,133,241	1,130,318	1,127,395	1,124,472	1,141,549	1,138,626	1,135,703	1,132,780	1,129,857	1,126,934	1,124,011	
6.	Average Net Investment		1,127,626	1,134,703	1,131,780	1,128,857	1,125,934	1,133,011	1,140,088	1,137,165	1,134,242	1,131,319	1,128,396	1,125,473	
7.	Return on Average Net Investment														
	a. Equity Component Grossed Up For Ta	xes (B)	8,193	8,244	8,223	8,202	8,181	8,232	8,283	8,262	8,241	8,220	8,199	8,177	\$98,657
	b. Debt Component Grossed Up For Taxe	es (C)	2,756	2,773	2,766	2,759	2,751	2,769	2,786	2,779	2,772	2,765	2,757	2,750	33,183
8	Investment Expenses														
	a. Depreciation (D)		2,923	2,923	2,923	2.923	2,923	2,923	2,923	2,923	2,923	2,923	2,923	2,923	35,076
	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 (Lin	es 7 + 8)	13,872	13,940	13,912	13,884	13,855	13,924	13,992	13,964	13,936	13,908	13,879	13,850	166,916
•	a. Recoverable Costs Allocated to Energy		13,872	13,940	13,912	13,884	13,855	13,924	13,992	13,964	13,936	13,908	13,879	13,850	166,916
	b. Recoverable Costs Allocated to Dema		0	0	0	0	0	0	0	0	0	0	0	0	0
10	Energy Jurisdictional Factor		0.9997895	0.9999343	0 9999774	0 9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
10. 11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
1).	Comary Julisticional Factor		0.000013Z	0.0000102	0.0000102	0.0000102	1.0000102	5.0000 102	5.0000102						
12.	Retail Energy-Related Recoverable Costs	(E)	13,869	13,939	13,912	13,882	13,838	13,897	13,963	13,930	13,913	13,889	13,877	13,850	166,759
13.	Retail Demand-Related Recoverable Cost	ts (F)	0	0	0	D	0	0	0	0	0	0	0	0	0
14.	Total Jurisdictional Recoverable Costs (Li	nes 12 + 13)	\$13,869	\$13,939	\$13,912	\$13,882	\$13,838	\$13,897	\$13,963	\$13,930	\$13,913	\$13,889	\$13,877	\$13,850	\$166,759

#### Notes:

- (A) Applicable depreciable base for Big Bend and Polk; accounts 315.40 (\$1,169,053). Accounts 312.41, 312.43, 312.44, and 345.81 will be applicable when in-service.
- (B) Line 6 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (C) Line 6 x 2.9324% x 1/12.
- (D) Applicable depreciation rate is 3.0%, 3.3%, 2.6%, 2.4% and 3.1%
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

#### Tampa Electric Company Environmental Cost Recovery Clause (ECRC) Calculation of the Projected Period Amount January 2012 to December 2012

For Project: SO<sub>2</sub> Emissions Allowances (in Dollars)

Line	Description	Beginning of Period Amount	Projected January	Projected February	Projected March	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Projected October	Projected November	Projected December	End of Period Total
1.	investments														
	a. Purchases/Transfers		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Sales/Transfers		\$0	0	0	0	0	0	0	0	0	0	0	0	Q.
	c. Auction Proceeds/Other		0	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	O	0	0	0	0	0	0	0	
	b. FERC 158.2 Allowances Withheld	0	0	0	٥	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	(07.005)	
	d. FERC 254.01 Regulatory Liabilities - Gains	(38,349)	(38,228)	(38,132)	(38,016)	(37,923)	(37,813)	(37,697)	(37,574)	(37,451)	(37,342)	(37,238)	(37,131)	(37,025)	
3.	Total Working Capital Balance	(\$38,349)	(38,228)	(38,132)	(38,016)	(37,923)	(37,813)	(37,697)	(37,574)	(37,451)	(37,342)	(37,238)	(37,131)	(37,025)	
4.	Average Net Working Capital Balance		(\$38,289)	(\$38,180)	(\$38,074)	(\$37,970)	(\$37,868)	(\$37,755)	(\$37,636)	(\$37,513)	(\$37,397)	(\$37,290)	(\$37,185)	(\$37,078)	
5.	Return on Average Net Working Capital Balance														
-	a. Equity Component Grossed Up For Taxes (A)		(278)	(277)	(277)	(276)	(275)	(274)	(273)	(273)	(272)	(271)	(270)	(269)	(3,285)
	b. Debt Component Grossed Up For Taxes (B)		(94)	(93)	(93)	(93)	(93)	(92)	(92)	(92)	(91)	(91)	(91)	(91)	(1,105)
6.	Total Return Component (C)	•	(372)	(370)	(370)	(369)	(368)	(366)	(365)	(365)	(363)	(362)	(361)	(360)	(4,391)
7.	Expenses:											_	_		
	a. Gains		0	0	C	O	0	0	C	0	0	0	0	0	0
	b. Losses		0	0	0	0	0	0	0	0	0	0	0	_	
	c. SO <sub>2</sub> Allowance Expense		1,843	1,706	1,841	1,860	1,913	1,842	1,904	1,902	1,840	1,916	1,855	1,840	22,262
8.	Net Expenses (D)	_	1,843	1,706	1,841	1,860	1,913	1,842	1,904	1,902	1,840	1,916	1,855	1,840	22,262
9.	Total System Recoverable Expenses (Lines 6 + 8)		1,471	1,336	1,471	1,491	1,545	1,476	1,539	1,537	1,477	1,554	1,494	1,480	17,871
	a. Recoverable Costs Allocated to Energy		1,471	1,336	1,471	1,491	1,545	1,476	1,539	1,537	1,477	1,554	1,494	1,480	17,871
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Energy Jurisdictional Factor		0.9997895	0.9999343	0.9999774	0.9998727	0.9987957	0.9980413	0.9979397	0.9975653	0.9983219	0.9986438	0.9998917	0.9999727	
11.	Demand Jurisdictional Factor		0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	0.9958152	
12.	Retail Energy-Related Recoverable Costs (D)		1,471	1,336	1,471	1,491	1,543	1,473	1,536	1,533	1,475	1,552	1,494	1,480	17,855
13.	Retail Demand-Related Recoverable Costs (E)		0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Total Juris, Recoverable Costs (Lines 12 + 13)		\$1,471	\$1,336	\$1,471	\$1,491	\$1,543	\$1,473	\$1,536	\$1,533	\$1,475	\$1,552	\$1,494	\$1,480	\$17,855

- Notes:

  (A) Line 4 x 8.7188% x 1/12. Based on ROE of 11.25% and weighted income tax rate of 38.575% (expansion factor of 1.63490).
- (B) Line 4 x 2.9324% x 1/12.
- (C) Line 6 is reported on Schedules 3P
- (D) Line 8 is reported on Schedules 2P
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

<sup>\*</sup> Totals on this schedule may not foot due to rounding.

**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 2011

through December 2011, is \$742,259 compared to the original projection of

\$742,259 representing no variance.

The actual/estimated O&M expense for the period January 2011 through December 2011 is \$5,544,173 compared to the original projection of

\$5,154,400 resulting in an insignificant variance.

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

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012, is expected to be \$768,402.

Estimated O&M costs for the period January 2012 through December 2012

are projected to be \$4,490,200.

**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 2011 through December 2011 is \$403,377 compared to the original projection of \$403,377 representing no variance.

The actual/estimated O&M expense for this project for the period January 2011 through December 2011 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 2012 through

December 2012 is projected to be \$384,629.

There are no estimated O&M costs for the period January 2012 through

**Project Title:** 

Big Bend Unit 4 Continuous Emissions Monitors

### **Project Description:**

Continuous emissions monitors (CEMs) were installed on the flue gas inlet and outlet of Big Bend Unit 4 to monitor compliance with the CAAA requirements. The monitors are capable of measuring, recording and electronically reporting SO<sub>2</sub>, NO<sub>x</sub> and volumetric gas flow out of the stack. The project consisted of monitors, a CEM building, the CEMs control and power cables to supply a complete system.

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

### **Project Accomplishment:**

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2011

through December 2011 is \$76,381 compared to the original projection of

\$76,381 representing no variance.

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

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012 is projected to be \$74,263.

**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 2011

through December 2011 is \$128,734 compared to the original projection of

\$128,734 representing no variance.

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

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012 is projected to be \$123,674.

**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 2011

through December 2011 is \$93,421 compared to the original projection of

\$93,421 representing no variance.

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

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012 is projected to be \$89,861.

**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 SO<sub>2</sub> requirements of Phase II of the CAAA.

### **Project Accomplishments:**

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2011

through December 2011 is \$8,682,949 compared to the original projection of

\$8,896,117 representing an insignificant variance.

The actual/estimated O&M expense for the period January 2011 through December 2011 is \$7,629,441 as compared to the original estimate of

\$7,791,300 representing an insignificant variance.

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

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012 is expected to be \$8,815,500.

Estimated O&M costs for the period January 2012 through December 2012

are projected to be \$8,835,100.

**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 2011

through December 2011, is \$13,022 compared to the original projection of

\$13,022 representing no variance.

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

May 2000.

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012 is expected to be \$12,739.

**Project Title:** 

Big Bend FGD Optimization and Utilization

### **Project Description:**

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

### **Project Accomplishments:**

Fiscal Expenditures: The actual/estimated depreciation plus return for the period January 2011

through December 2011 is \$2,417,303 compared to the original projection of

\$2,417,303 representing no variance.

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

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012 is expected to be \$2,359,083.

**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 2011 through December 2011 is \$1,062,800 as compared to the original projection of \$1,081,441 resulting in an insignificant variance.

The actual/estimated O&M expense the period January 2011 through December 2011 is \$279,413 as compared to the original projection of \$479,200 resulting in a variance of 42 percent. The variance is driven by the reduction in maintenance costs associated with implementing best operating

practices that have been developed over time.

**Progress Summary:** 

This project was placed in-service July 2005.

Projections:

Estimated depreciation plus return for the period January 2012 through

December 2012 is expected to be \$1,076,352.

Estimated O&M costs for the period January 2012 through December 2012

are projected to be \$390,400.

Project Title:

Big Bend NO<sub>x</sub> Emissions Reduction

#### **Project Description:**

In order to meet the requirements of the FDEP Consent Final Judgment and the EPA Consent Decree, Tampa Electric 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 2011

through December 2011 is \$781,211 as compared to the original projection of

\$791,631 representing an insignificant variance.

The actual/estimated O&M expense the period January 2011 through December 2011 is \$379,930 as compared to the original projection of

\$396,000 resulting in an insignificant variance.

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

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012 is expected to be \$769,550.

Estimated O&M costs for the period January 2012 through December 2012

are projected to be \$395,000.

**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 2011

through December 2011 is \$51,572 compared to the original projection of

\$51,572 representing no variance.

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

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012 is projected to be \$50,065.

**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 2011

through December 2011 is \$84,824 compared to the original projection of

\$84,824 representing no variance.

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

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012 is projected to be \$82,344.

### Tampa Electric Company Environmental Cost Recovery Clause January 2012 through December 2012

Description and Progress Report for Environmental Compliance Activities and Projects

**Project Title:** 

Phillips Oil Tank No. 1 Upgrade

### **Project Description:**

The Phillips Oil Tank No. 1 Upgrade is a 1,300,000 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 a spill containment for piping fittings and valves surrounding the tank, 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 2011

through December 2011, is \$5,461 compared to the original projection of

\$5,461 representing no variance.

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

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012 is projected to be \$5,267.

**Project Title:** 

Phillips Oil Tank No. 4 Upgrade

### **Project Description:**

The Phillips Oil Tank No. 4 Upgrade is a 57,000 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 a spill containment for piping fittings and valves surrounding the tank, 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 2011

through December 2011 is \$8,584 compared to the original projection of

\$8,584 representing no variance.

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

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012 is projected to be \$8,267.

Project Title:

SO<sub>2</sub> Emission Allowances

### **Project Description:**

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

### **Project Accomplishments:**

Fiscal Expenditures: The actual/estimated return on average net working capital for the period

January 2011 through December 2011 is (\$4,556) compared to the original

projection of (\$4,530) representing an insignificant variance.

The actual/estimated O&M for the period January 2011 through December 2011 is \$26,956 compared to the original projection of \$601,313 representing a variance of 96 percent. The variance is driven by less cogeneration purchases than expected and the application of a lower rate than originally

projected.

Progress Summary: SO<sub>2</sub> emission allowances are being used by Tampa Electric to meet

compliance standards for Phase I of the CAAA.

Project Projections: Estimated return on average net working capital for the period January 2012

through December 2011 is projected to be (\$4,391).

Estimated O&M costs for the period January 2012 through December 2012

are projected to be \$22,262.

**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 2011 through

December 2011 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 2012 through December 2012

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 2011 through

December 2011 is \$73,495 compared to the original projection of \$30,000, which represents a variance of 145 percent. The variance is due to an evaluation to determine a method of how to lower cooling water discharge

temperatures.

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

September 4, 2001.

Projections: Estimated O&M costs for the period January 2012 through December 2012

are projected to be \$20,000.

**Project Title:** 

Polk NO<sub>x</sub> 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 2011 through December 2011 is \$189,422 as compared to the original projection of \$189,422 representing no variance.

The actual/estimated O&M for the period January 2011 through December 2011 is (20,284) compared to the original projection of 50,000, which represents a variance of 141 percent. The variance is due to the sale of  $NO_x$  emissions which offset the cost of maintenance activities.

**Progress Summary:** 

The project was placed in-service January 2005.

**Project Projections:** 

Estimated depreciation plus return for the period January 2012 through December 2012 is projected to be \$183,237.

Estimated O&M costs for the period January 2012 through December 2012 are projected to be \$35,000.

**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 2011 through

December 2011 is \$102,108 compared to the original projection of \$115,200

resulting in an insignificant variance.

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 2012 through December 2012

are projected to be \$106,400.

**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 2011

through December 2011 is \$310,809 compared to the original projection of

\$310,809 representing no variance.

The actual/estimated O&M for the period January 2011 through December

2011 is \$0 compared to the original projection of \$0 representing no variance.

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

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012 is projected to be \$303,655.

There are no estimated O&M costs for the period January 2012 through

**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 2012 through 2012. 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  $O_x^{\rm SM}$  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 2011 through December 2011 is \$218,293 compared to the original projection of \$261,143 representing a variance 16 percent. The variance is due to the retirement of the neural network component related to Big Bend Pre-SCR program and the resultant decrease of the construction work in progress.

The actual/estimated O&M for the period January 2011 through December 2011 is \$249 compared to the original projection of \$0 representing an insignificant variance.

**Progress Summary:** 

This project was approved by the Commission in Docket No. 040750-EI, Order

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

Projections:

Estimated depreciation plus return for the period January 2012 through

December 2012 is projected to be \$211,950.

There are no estimated O&M costs for the period January 2012 through

**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 2012through 2012. 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 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 2011

through December 2011 is \$207,873 compared to the original projection of

\$207,873 representing no variance.

The actual/estimated O&M for the period January 2011 through December 2011 is \$0 compared to the original projection of \$0 representing no variance

2011 is \$0 compared to the original projection of \$0 representing no variance.

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

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

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012 is projected to be \$202,159.

There are no estimated O&M costs for the period January 2012 through

**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 2012 through 2012. 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 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 2011

through December 2011 is \$358,814 compared to the original projection of

\$358,814, resulting in no variance.

The actual/estimated O&M for the period January 2011 through December

2011 is \$200 compared to the original projection of \$0 resulting in no variance.

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 2012 through

December 2012 is projected to be \$350,697.

There are no estimated O&M costs for the period January 2012 through

**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 2011 through December

2011 is \$54,260 compared to the original projection of \$60,000 resulting in an

insignificant variance.

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

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

Projections: Estimated O&M costs for the period January 2012 through December 2012

are projected to be \$30,000.

**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 2012 through 2012. 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 2011 through December 2011 is \$11,720,715 compared to the original projection of \$11,823,188 resulting in an insignificant variance.

The actual/estimated O&M for the period January 2011 through December 2011 is \$1,992,957 compared to the original projection of \$958,900 resulting in a variance of 108 percent. This variance is due to an increase in maintenance expenses associated with the higher than projected contractor and material costs. Additionally, ammonia usage was greater than projected.

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 2012 through

December 2012 is projected to be \$11,474,749.

Estimated O&M costs for the period January 2012 through December 2012

are projected to be \$2,466,489.

**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 2012 through 2012. 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 2011

through December 2011 is \$12,562,769 compared to the original projection of

\$12,522,896, resulting an insignificant variance.

The actual/estimated O&M for the period January 2011 through December 2011 is \$1,280,394 compared to the original projection of \$1,728,400 representing a variance of 26 percent. The variance is due to consumption of

ammonia being less than projected.

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

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

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012 is projected to be \$12,505,318.

Estimated O&M costs for the period January 2012 through December 2012

are projected to be \$2,536,432.

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 2012 through 2012. 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 2011

through December 2011 is \$10,430,446 compared to the original projection of

\$10,323,816 resulting in an insignificant variance.

The actual/estimated O&M for the period January 2011 through December 2011 is \$1,856,640 compared to the original projection of \$1,695,400 resulting

in an insignificant variance.

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

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

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012 is projected to be \$10,258,438.

Estimated O&M costs for the period January 2012 through December 2012

are projected to be \$1,513,033.

**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 2012 through 2012. 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 2011

through December 2011 is \$7,950,899 compared to the original projection of

\$7,722,172 resulting in an insignificant variance.

The actual/estimated O&M for the period January 2011 through December 2011 is \$1,441,134 compared to the original projection of \$758,200 representing a variance of 90 percent. The variance is due to maintenance costs being greater than projected as well as an increase in the usage of

ammonia.

Progress Summary: This project went in to service in May 2007.

Projections: Estimated depreciation plus return for the period January 2012 through

December 2012 is projected to be \$7,799,065.

Estimated O&M costs for the period January 2012 through December 2012

are projected to be \$998,269.

**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 2011 through December

2011 is \$119,369 compared to the original projection of \$170,000 resulting in a variance of 30 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 2012 through December 2012

are projected to be \$667,000.

**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, 2013 for Big Bend Units 1 and 2.

### **Project Accomplishments:**

Fiscal Expenditures:

The actual/estimated depreciation plus return for the period January 2011 through December 2011 is \$1,732,791 compared to the original projection of \$1,959,594 resulting in variance of 12 percent. The variance is due to the overall expenditures for the project now estimated to be less for the year. Additionally, the original expenditures were projected to occur throughout the year but will now be occurring during the latter part of the year. This timing change on expenditures lowered the original monthly CWIP amounts and thus the monthly return on average net investment amounts thereby creating the modest annual estimated variance.

**Progress Summary:** 

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.

Projections:

Estimated depreciation plus return for the period January 2012 through December 2012 is projected to be \$3,473,539.

**Project Title:** 

Clean Air Mercury Rule ("CAMR")

### **Project Description:**

The EPA established standards of performance for mercury for new and existing coal-fired electric utility steam generating units as defined in the federal Clean Air Act, known as the Clean Air Mercury Rule ("CAMR"). CAMR was designed to permanently cap mercury emissions nation-wide in two phases ending in 2018. On February 8, 2008 the Washington, D.C. Circuit Court vacated EPA's rule removing power plants from the Clean Air Act list of regulated sources of hazardous air pollutants under section 112 and vacated the Clean Air Mercury Rule. However, on May 3, 2011 EPA published a new proposed rule for mercury and other hazardous air pollutants according to the National Emissions Standards for Hazardous Air Pollutants section of the Clean Air Act. The proposed rule calls for mercury monitoring requirements comparable to CAMR by 2014. 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.

### **Project Accomplishments:**

Fiscal Expenditures:

The actual/estimated depreciation plus return for the period January 2011 through December 2011 is \$164,511 compared to the original projection of \$167,154 resulting in an insignificant variance.

The actual/estimated O&M for the period January 2011 through December 2011 is \$26,839 compared to the original projection of \$8,000 resulting in a variance of 236 percent. The variance is due to the EPA Information Collection Request requiring extensive air emission testing at Polk Power Station and Big Bend Station. EPA is collecting data in support of Clean Air Act National Emission Standards for Hazardous Air Pollutant rulemaking that is under way.

**Progress Summary:** 

A petition was filed on August 30, 2006 seeking Commission approval of cost recovery through the ECRC for the new CAMR program.

Projections:

Estimated depreciation plus return for the period January 2012 through December 2012 is projected to be \$166,916.

Estimated O&M costs for the period January 2012 through December 2012 are projected to be \$24,000.

**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 2011 through December

2011 is \$42,958 compared to the original projection of \$56,100 resulting in a variance of 23 percent. The variance is due to the project taking less time

than originally expected.

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

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

Projections: Estimated O&M costs for the period January 2012 through December 2012

are projected to be \$40,000.

#### Tampa Electric Company

#### Environmental Cost Recovery Clause (ECRC) Calculation of the Energy & Demand Allocation % By Rate Class January 2012 to December 2012

	(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	53.82%	8,889,736	8,889,736	1,886	1.08084	1.05540	9,382,208	2,038	46.84%	57.09%	54.53%
GS, TS	59.28%	1,041,638	1,041,638	201	1.08084	1.05538	1,099,328	217	5.49%	6.08%	5.93%
GSD, SBF	80.91%	7,875,219	7,862,368	1,111	1.07633	1.05161	8,281,683	1,196	41.34%	33.50%	35.46%
IS	102.46%	1,023,749	1,006,067	114	1.03157	1.01880	1,042,990	118	5.21%	3.31%	3.78%
LS1	2255.01%	213,911	213,911	1	1.08084	1.05540	225,761	1	1.13%	0.03%	0.30%
TOTAL*		19,044,253	19,013,720	3,313			20,031,970	3,570	100.00%	100.00%	100.00%

- Notes: (1) Average 12 CP load factor based on 2011 projected calendar data
  - (2) Projected MWh sales for the period January 2012 to December 2012
  - (3) Effective sales at secondary level for the period January 2012 to December 2012.
  - (4) Column 2 / (Column 1 x 8760)
  - (5) Based on 2011 proposed demand losses.
  - (6) Based on 2011 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

#### **Tampa Electric Company**

### Environmental Cost Recovery Clause (ECRC) Calculation of the Energy & Demand Allocation % By Rate Class January 2012 to December 2012

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	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%	54.53%	40,421,573	494,577	40,916,150	8,889,736	8,889,736	0.460
GS, TS	5.49%	5.93%	4,736,259	53,805	4,790,064	1,041,638	1,041,638	0.460
GSD, SBF Secondary Primary Transmissio	41.34% on	35.46%	35,680,157	321,641	36,001,798	7,875,219	7,862,368	0.458 0.453 0.449
Secondary Primary Transmissio	5.21% on	3.78%	4,493,537	34,324	4,527,861	1,023,749	1,006,067	0.450 0.446 0.441
LS1 _	1.13%	0.30%	972,651	2,760	975,411	213,911	213,911	0.456
TOTAL *	100.00%	100.00%	86,304,177	907,039	87,211,216	19,044,253	19,013,720	0.459

<sup>\*</sup> 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 100

#### Tampa Electric Company

Form 42 - 8P

Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
January 2012 to December 2012

### Calculation of Revenue Requirement Rate of Return (In Dollars)

		(1)	(2)	(3)	(4)	
	J	urisdictional			Weighted	
		Rate Base		Cost	Cost	
	20	09 Test Year	Ratio	Rate	Rate	
		(\$000)	%	%	%	
Long Term Debt	\$	1,384,999	40.29%	6.80%	2.7397%	
Short Term Debt		7,905	0.23%	2.75%	0.0063%	
Preferred Stock		0	0.00%	0.00%	0.0000%	
Customer Deposits		99,502	2.89%	6.07%	0.1754%	
Common Equity		1,632,612	47.49%	11.25%	5.3426%	
Deferred ITC - Weighted Cost		8,964	0.26%	9.19%	0.0239%	
Accumulated Deferred Income Taxes Zero Cost ITCs		303,629	<u>8.83%</u>	0.00%	<u>0.0000%</u>	
Total	<u>\$</u>	3.437.611	100.00%		8.2879%	
ITC split between Debt and Equity:						
Long Term Debt	\$	1,384,999	L	ong Term De	bt	45.78%
Short Term Debt		7,905	8	hort Term De	ebt	0.26%
Equity - Preferred		0	E	quity - Prefer	red	0.00%
Equity - Common		<u>1,632,612</u>	E	quity - Comm	non	<u>53.96%</u>
Total	<u>s_</u>	3.025.516		Total		100.00%

### Deferred ITC - Weighted Cost:

Debt = .0239% * 46.04%	0.0110%
Equity = .0239% * 53.96%	0.0129%
Weighted Cost	0.0239%

#### **Total Equity Cost Rate:**

Preferred Stock	0.0000%
Common Equity	5.3426%
Deferred ITC - Weighted Cost	0.0129%
	5.3555%
Times Tax Multiplier	1.628002
Total Equity Component	8 7188%

#### Total Debt Cost Rate:

Long Term Debt	2.7397%
Short Term Debt	0.0063%
Customer Deposits	0.1754%
Deferred ITC - Weighted Cost	0.0110%
Total Debt Component	2.9324%

#### Notes

Column (1) - From Order No. PSC-09-0571-FOF-El Column (2) - Column (1) / Total Column (1) Column (3) - From Order No. PSC-09-0571-FOF-El Column (4) - Column (2) x Column (3)