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TAMPA ELECTRIC COMPANY
DOCKET NO. 970007-EI
SUBMITTED FOR FILING 6/23/97

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
PREPARED DIRECT TESTIMONY
OF
KAREN A. BRANICK

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

A. My name is Karen A. Branick. My business address is 702 North Franklin Street, Tampa, Florida 33602. I am employed by Tampa Electric Company in the position of Director - Electric Regulatory Affairs.

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

A. I received a Bachelor of Science Degree in Chemical Engineering and Chemistry from the University of Pittsburgh, Pittsburgh, Pennsylvania in 1986. In 1987 I was employed as a chemist for Florida Power & Light Company (FPL). In 1990, I became a performance engineer; in 1991 a laboratory supervisor; and in 1992 an operations supervisor for FPL. My career at Tampa Electric began in 1992 in the Production Department. My responsibilities included insurance of proper boiler chemistry and chemical engineering support during normal operations and

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1 maintenance outages. I led projects related to alternate
2 fuel test burns and waste water management. In 1994, I
3 transferred to the Bulk Power & Market Development
4 Department where I managed the customer accounts of
5 approximately 30 of Tampa Electric's large industrial
6 customers. I also participated in developing proposals for
7 long term off-system sales of wholesale power. In October
8 1996, I was promoted to Manager-Energy Issues in the
9 Regulatory and Business Strategy Department. In June of
10 1997 I was promoted to my current position of Director. My
11 present responsibilities include the areas of fuel
12 adjustment filings, capacity costs recovery filings,
13 environmental cost recovery filings, pricing and rate
14 design and issues under the Federal jurisdiction.

15

16 Q. What is the purpose of your testimony?

17

18 A. The purpose of my testimony is to present, for Commission
19 review and approval, both the calculation of the revenue
20 requirements and the development of the environmental cost
21 recovery factors for the billing period October 1997
22 through March 1998. My testimony also addresses the
23 recovery of costs associated with the environmental
24 compliance activities for this period as well as the
25 estimated/actual costs for the April 1997 through September

- 1 1997 period. Finally, my testimony provides an explanation
2 of significant project variances.
3
- 4 Q. Do you wish to sponsor an exhibit in support of your
5 testimony?
6
- 7 A. Yes, I do. My exhibit No. _____ (KAB-1) consisting of 16
8 documents, was prepared under my direction and supervision.
9 Form 42-1P summarizes the costs being presented for
10 recovery at this time; Form 42-2P reflects the total
11 jurisdictional recoverable costs for O & M activities; Form
12 42-3P reflects the total jurisdictional recoverable costs
13 for capital investment projects; Form 42-4P, pages 1
14 through 3, consists of the calculation of depreciation
15 expense and return on capital investment for each project;
16 Form 42-5P gives the description and progress of
17 environmental compliance activities to be recovered through
18 the clause for the projected period; Form 42-6P reflects
19 the calculation of the energy and demand allocation
20 percentages by rate class and Form 42-7P reflects the
21 calculation of the ECRC factors. In addition, Forms 42-1E
22 through 42-8E reflect the true-up and variance calculation
23 for the prior period.
24
- 25 Q. What has Tampa Electric calculated as the total true-up to

1 be applied in the period October 1997 through March 1998?
2

3 A. The total true-up for this period is an underrecovery of
4 \$687,097. This true-up consists of a final true-up
5 overrecovery of \$156,449 as filed on May 20, 1997 and a two
6 month actual/four month estimated true-up underrecovery of
7 \$843,546 for the April 1997 through September 1997 period.
8 A detailed calculation supporting the estimated true-up is
9 shown on Schedules 42-1E through 42-8E of my Exhibit.

10

11 Q. How do the estimated/actual project expenditures for April
12 1997 through September 1997 period compare with the
13 original projection?

14

15 A. Form 42-4E shows the total O & M activities were \$797,659
16 greater than projected. The largest variances were
17 associated with the following projects:

18

19 1. BIG BEND UNIT 3 FLUE GAS DESULFURIZATION INTEGRATION
20 (FGD) - O & M expenditures were \$105,133 (-12.0%)
21 lower than expected primarily due to lower than
22 expected maintenance expenses and lower than projected
23 utilization of the FGD system to treat flue gases from
24 Big Bend Unit 3. Big Bend Unit 3 continues to
25 experience more time operating de-integrated from the

1 FGD system than was originally projected. Any
2 operating problem that restricts FGD capability
3 results in having to de-integrate Unit 3.
4

- 5 2. SO2 EMISSIONS ALLOWANCES - Consumption expense was
6 \$903,482 (115.9%) higher than projected. Tampa
7 Electric's strategy for compliance with Phase I and
8 Phase II of the 1990 Clean Air Act Amendments (CAAA)
9 has been one that will ensure compliance at the lowest
10 cost possible. By combining fuel switching
11 integration and SO2 Emissions Allowance consumption,
12 the company seeks to meet compliance standards while
13 delaying the addition of capital intensive compliance
14 technology for as long as possible. This compliance
15 strategy affords Tampa Electric's customers the
16 opportunity to realize savings associated with lower
17 generation costs. To the extent that Tampa Electric's
18 environmental requirements would not be compromised,
19 in instances where fuel switching costs are greater
20 than the cost of purchasing allowances, SO2 emission
21 allowances should be purchased and consumed instead.
22

23 Based on projected generation and fuel consumption,
24 company strategy for allowance purchases was to buy
25 only that amount of allowances needed to meet

1 compliance standards for 1997. However, due to an ever
2 changing market environment, Tampa Electric is in a
3 position to capitalize on an allowance market
4 currently characterized by declining prices. The
5 company's strategy for allowance purchases for 1997
6 changed to take advantage of the prevailing allowance
7 market by aggressively pursuing opportunities to lower
8 overall generation costs and meet current as well as
9 future environmental compliance standards at the
10 lowest possible cost.

11
12 As long as current market conditions for SO2 emission
13 allowances prevail, Tampa Electric will act to
14 safeguard it's customers from future risks associated
15 with increased costs in allowance transactions by
16 purchasing responsibly now.

17
18 Because the company is granted an initial allowance
19 inventory at no cost from the EPA, any purchases of
20 allowances increases the average dollar value of the
21 inventory available for consumption. This higher
22 dollar per allowance in turn impacts the amount
23 charged to expense for allowances consumed.

24
25 Q. What environmental compliance costs is Tampa Electric

1 requesting for recovery through the Environmental Cost
2 Recovery Clause for the period October 1997 through March
3 1998?
4
5 A. There are no new projects to report for the October 1997
6 through March 1998 period.
7
8 Q. Please describe Form 42-1P.
9
10 A. Form 42-1P provides a summary of the costs being requested
11 for recovery through the ECRC. Total recoverable revenue
12 requirements associated with environmental activities,
13 adjusted for taxes, are projected to be \$3,837,658 for the
14 period October 1997 through March 1998.
15
16 Q. Please describe Forms 42-2P and 42-3P.
17
18 A. Form 42-2P presents the O & M activities to be recovered in
19 the projected period along with the calculation of total
20 jurisdictional recoverable costs for these activities,
21 classified by energy and demand.
22
23 Form 42-3P presents the capital investment projects to be
24 recovered in the projected period along with the
25 calculation of total jurisdictional recoverable costs for

1 these projects, classified by energy and demand.
2
3 **Q.** Please describe Form 42-6P.
4
5 **A.** Form 42-6P calculates the allocation factors for demand and
6 energy at generation. The demand allocation factors are
7 calculated by determining the percentage each rate class
8 contributes to the monthly system peaks. The energy
9 allocators are calculated by determining the percentage
10 each rate class contributes to total kWh sales, as adjusted
11 for losses, for each rate class.
12
13 **Q.** Please describe Form 42-7P.
14
15 **A.** Form 42-7P presents the calculation of the proposed ECRC
16 factors by rate class.
17
18 **Q.** What is the total amount of projected recoverable costs
19 related to the period October 1997 through March 1998?
20
21 **A.** The total projected jurisdictional recoverable costs for
22 the period October 1997 through March 1998 are \$3,147,367
23 as shown on line 1c of Schedule 42-1P. This includes cost
24 related to O & M activities of \$2,230,196 and costs related
25 to capital projects of \$917,171 as shown on lines 1a and 1b

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of Schedule 42-1P.

Q. What are the ECRC billing factor rates for which you are seeking approval?

A. The computation of the billing factors is shown on Form 42-7P of my Exhibit. In summary, the billing factors are:

<u>Rate Class</u>	<u>Factor (cents per kWh)</u>
RS, RST	0.054
GS, GST, TS	0.054
GSD, GSDT	0.054
GSLD, GSLDT, SBF, SBFT	0.053
IS1, IST1, SBI1, SBIT1, IS3, IST3, SBI3, SBIT3	0.052
SL, OL	0.054

Q. When should the new charges go into effect?

A. The new charges should go into effect commensurate with the first billing cycle in October 1997.

Q. Does this conclude your testimony?

1 | A. Yes, it does.

EXHIBIT NO _____
DOCKET NO 970007-EI
TAMPA ELECTRIC COMPANY
(KAB-1)

FINAL TRUE UP
ENVIRONMENTAL COST RECOVERY
COMMISSION FORMS
EXHIBITS
42-1P THROUGH 42-7P
APRIL 1997 - SEPTEMBER 1997
AND
42-1E THROUGH 42-8E
OCTOBER 1997 - MARCH 1998

EXHIBIT NO. _____
DOCKET NO. 970007-EI
TAMPA ELECTRIC COMPANY
(KAB-1)

FINAL TRUE UP
ENVIRONMENTAL COST RECOVERY
COMMISSION FORMS

42-1P THROUGH 42-7P
APRIL 1997 - SEPTEMBER 1997
AND
42-1E THROUGH 42-8E
OCTOBER 1997 - MARCH 1998

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<u>DOCUMENT NO.</u>	<u>TITLE</u>	<u>PAGE</u>
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Tampa Electric Company
 Environmental Cost Recovery Clause (ECRC)
 Total Jurisdictional Amount to Be Recovered

For the Projected Period
 October 1997 to March 1998

Line No	Energy (\$)	Demand (\$)	Total (\$)
1			
a	\$2,230,196	\$0	\$2,230,196
b	917,171	0	917,171
c	3,147,367	0	3,147,367
2	(843,546)	0	(843,546)
3	156,449	0	156,449
4	3,834,464	0	3,834,464
5	\$3,837,659	\$0	\$3,837,659

- 1 Total Jurisdictional Revenue Requirements for the projected period
 - a Projected O&M Activities (Form 42-2P, Lines 7, 8 & 9)
 - b Projected Capital Projects (Form 42-3P, Lines 7, 8 & 9)
 - c Total Jurisdictional Revenue Requirements for the projected period (Lines 1a + 1b)
- 2 True-up for Estimated Over/(Under) Recovery for the current period April 1997 to September 1997 (Form 42-2E, Line 5 + 6 + 10)
- 3 Final True-up for the period October 1996 to March 1997 (Form 42-1A, Line 3)
- 4 Total Jurisdictional Amount to Be Recovered/(Refunded) in the projection period October 1997 to March 1998 (Line 1 - Line 2 - Line 3)
- 5 Total Projected Jurisdictional Amount Adjusted for Taxes (Line 4 x Revenue Tax Multiplier)

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

Tampa Electric Company
 Environmental Cost Recovery Clause (ECRC)
 Calculation of the Current Period True-Up
 October 1997 to March 1998

Form 42-2P

Current Period True-Up Amount
 (\$, Dollars)

Line	Description of O&M Activities	Current Period True-Up Amount										End of Period Total	Method of Classification Demand	Energy		
		Projected October 97	Projected November 97	Projected December 97	Projected January 98	Projected February 98	Projected March 98	Projected April 98	Projected May 98	Projected June 98	Projected July 98					
1	Total of O&M Activities	\$159,038	\$54,847	\$60,342	\$123,274	\$193,410	\$241,469	\$862,380							\$862,380	
1a	Big Bend Unit 3 Flue Gas Desulfurization Integration	4,583	4,583	4,583	3,950	3,950	3,950	3,950							25,599	
1b	Big Bend Units 1 and 2 Flue Gas Conditioning	0	0	0	0	0	0	0							0	
1c	Big Bend Unit 4 Continuous Emissions Monitors	281,798	297,143	305,143	145,873	137,693	155,128	1,412,578							1,412,578	
1d	SO2 Emissions Allowances	445,419	358,573	490,068	272,897	335,053	400,547	2,300,557							\$0	
2	Total of O&M Activities	445,419	358,573	490,068	272,897	335,053	400,547	2,300,557							\$0	
3	Recoverable Costs Allocated to Energy	0	0	0	0	0	0	0							0	
4	Recoverable Costs Allocated to Demand	0	0	0	0	0	0	0							0	
5	Retail Energy Jurisdictional Factor	0.9681851	0.9876013	0.9680006	0.9718778	0.9735470	0.9689158	0.9689158							0.9689158	
6	Retail Demand Jurisdictional Factor	N/A	N/A	N/A	N/A	N/A	N/A	N/A							N/A	
7	Jurisdictional Energy Recoverable Costs (A)	431,248	345,020	474,306	265,223	326,223	368,098	2,230,196							2,230,196	
8	Jurisdictional Demand Recoverable Costs (B)	0	0	0	0	0	0	0							0	
9	Total Jurisdictional Recoverable Costs for O&M Activities (Lines 7 + 8)	\$431,248	\$345,020	\$474,306	\$265,223	\$326,223	\$368,098	\$2,230,196							\$2,230,196	

Tampa Electric Company
 Environmental Cost Recovery Clause (ECRC)
 Calculation of the Projected Period Amount
 October 1997 to March 1998

Capital Investment Projects-Recoverable Costs
 (in Dollars)

Line	Description of Investment Projects (A)	Projected	Projected	Projected	Projected	Projected	Projected	Projected	End of Period Total	Method of Classification Demand	Energy
		October 97	November 97	December 97	January 98	February 98	March 98	March 98			
1	Total Investment Projects - Recoverable Costs	158,480	158,143	157,807	157,471	157,133	156,795	156,457	945,829	\$0	\$945,829
1a	Big Bend Unit 3 Flue Gas Desulfurization Integration	\$94,148	\$93,961	\$93,775	\$93,589	\$93,402	\$93,215	\$93,028	\$562,090		\$562,090
1b	Big Bend Units 1 and 2 Flue Gas Conditioning	57,029	56,887	56,745	56,603	56,461	56,319	56,177	340,192		340,192
1c	Big Bend Unit 4 Continuous Emissions Monitors	7,303	7,285	7,267	7,249	7,231	7,212	7,194	43,547		43,547
1d	SO2 Emissions Allowances	0	0	0	0	0	0	0	0		0
2	Recoverable Costs Allocated to Energy	158,480	158,143	157,807	157,471	157,133	156,795	156,457	945,829		\$945,829
3	Recoverable Costs Allocated to Demand	0	0	0	0	0	0	0	0		0
4	Retail Energy Jurisdictional Factor	0.9681851	0.9679013	0.9680008	0.9718778	0.9736470	0.9689158	0.9689158	0		0
5	Retail Demand Jurisdictional Factor	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0		0
7	Jurisdictional Energy Recoverable Costs (B)	153,439	153,020	152,757	153,042	152,892	151,921	151,921	917,171		917,171
8	Jurisdictional Demand Recoverable Costs (C)	0	0	0	0	0	0	0	0		0
9	Total Jurisdictional Recoverable Costs for Investment Projects (Lines 7 + 8)	\$153,439	\$153,020	\$152,757	\$153,042	\$152,892	\$151,921	\$151,921	\$917,171		\$917,171

Notes

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

Tampa Electric Company
 Environmental Cost Recovery Clause (ECRC)
 Calculation of the Projected Period Amount
 October 1997 to March 1998

Form 42 -4P
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Return on Capital Investments, Depreciation and Taxes
 For Project Big Bend Unit 3 Flue Gas Desulfurization Integration
 (in Dollars)

Line	Description	Beginning of Period Amount	Projected October 97	Projected November 97	Projected December 97	Projected January 98	Projected February 98	Projected March 98	End of Period Amount
1	Investments								
a	Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	
b	Clearings to Plant		0	0	0	0	0	0	
c	Retirements		0	0	0	0	0	0	
d	Other		0	0	0	0	0	0	
2	Plant-in-Service/Depreciation Base	\$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	(508,659)	(527,885)	(547,111)	(566,337)	(585,563)	(604,789)	(624,015)	
4	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	
5	Net Investment (Lines 2 + 3 + 4)	\$7,730,999	7,711,773	7,692,547	7,673,321	7,654,095	7,634,869	7,615,643	
6	Average Net Investment		7,721,388	7,702,180	7,682,934	7,663,708	7,644,482	7,625,256	
7	Return on Average Net Investment								
a	Equity Component Grossed Up For Taxes (A)		56,777	56,635	56,494	56,353	56,211	56,070	\$338,540
b	Debt Component (Line 6 x 2.82% x 1/12)		18,145	18,100	18,055	18,010	17,965	17,919	108,194
8	Investment Expenses								
a	Depreciation		19,226	19,226	19,226	19,226	19,226	19,226	115,356
b	Amortization		0	0	0	0	0	0	0
c	Dismantlement		0	0	0	0	0	0	0
d	Property Taxes		0	0	0	0	0	0	0
e	Other		0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)		94,148	93,961	93,775	93,589	93,402	93,215	562,090
a	Recoverable Costs Allocated to Energy		94,148	93,961	93,775	93,589	93,402	93,215	562,090
b	Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0
10	Energy Jurisdictional Factor		0.9681851	0.9676013	0.9680006	0.9718778	0.9736470	0.9689158	
11	Demand Jurisdictional Factor		N/A	N/A	N/A	N/A	N/A	N/A	
12	Retail Energy-Related Recoverable Costs (B)		91,153	90,917	90,774	90,957	90,941	90,317	545,059
13	Retail Demand-Related Recoverable Costs (C)		0	0	0	0	0	0	0
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$91,153	\$90,917	\$90,774	\$90,957	\$90,941	\$90,317	\$545,059

Notes:

- (A) Lines 6 x 8.8238% x 1/12. Based on ROE of 11.75% and weighted income tax rate of 38.575% (expansion factor of 1.628002)
 (B) Line 9a x Line 10
 (C) Line 9b x Line 11

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Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
October 1997 to March 1998

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 October 97	Projected November 97	Projected December 97	Projected January 98	Projected February 98	Projected March 98	End of Period Amount
1	Investments								
a.	Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0
b.	Classings to Plant		0	0	0	0	0	0	0
c.	Retirements		0	0	0	0	0	0	0
d.	Other		0	0	0	0	0	0	0
2	Plant-in-Service/Depreciation Base								
3	Less: Accumulated Depreciation	\$5,017,734	5,017,734	5,017,734	5,017,734	5,017,734	5,017,734	5,017,734	5,017,734
4	CWIP - Non-Interest Bearing	(\$535,634)	(549,238)	(562,842)	(578,446)	(590,050)	(603,654)	(617,258)	(630,862)
5	Net Investment (Lines 2 + 3 + 4)	\$4,482,100	4,468,496	4,454,892	4,441,288	4,427,684	4,414,080	4,400,476	4,386,874
6	Average Net Investment		4,475,298	4,461,694	4,448,090	4,434,486	4,420,882	4,407,278	4,393,674
7	Return on Average Net Investment								
a.	Equity Component Grossed Up For Taxes (A)		32,908	32,808	32,708	32,608	32,507	32,407	\$195,948
b.	Debt Component (Line 6 x 2.82% x 1/12)		10,517	10,485	10,453	10,421	10,389	10,357	62,822
8	Investment Expenses								
a.	Depreciation	13,604	13,604	13,604	13,604	13,604	13,604	13,604	81,624
b.	Amortization	0	0	0	0	0	0	0	0
c.	Dismantlement	0	0	0	0	0	0	0	0
d.	Property Taxes	0	0	0	0	0	0	0	0
e.	Other	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)		57,029	56,897	56,785	56,633	56,500	56,368	340,192
a.	Recoverable Costs Allocated to Energy		57,029	56,897	56,785	56,633	56,500	56,368	340,192
b.	Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0
10	Energy Jurisdictional Factor		0.9681851	0.9678013	0.9680008	0.9718778	0.9738470	0.9689158	
11	Demand Jurisdictional Factor		N/A	N/A	N/A	N/A	N/A	N/A	
12	Retail Energy-Related Recoverable Costs (B)		55,215	55,054	54,949	55,040	55,011	54,816	329,885
13	Retail Demand-Related Recoverable Costs (C)		0	0	0	0	0	0	0
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$55,215	\$55,054	\$54,949	\$55,040	\$55,011	\$54,816	\$329,885

Notes:

- (A) Lines 6 x 8.8238% x 1/12. Based on ROE of 11.75% and weighted income tax rate of 38.575% (expansion factor of 1.628002)
- (B) Line 9a x Line 10
- (C) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Projected Period Amount
October 1997 to March 1998

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

Line	Description	Beginning of Period Amount	Projected October 97	Projected November 97	Projected December 97	Projected January 98	Projected February 98	Projected March 98	End of Period Amount
1	Investments								
a	Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	
b	Clearings to Plant		0	0	0	0	0	0	
c	Retirements		0	0	0	0	0	0	
d	Other		0	0	0	0	0	0	
2	Plant-in-Service/Depreciation Base	\$666,211	666,211	666,211	666,211	666,211	666,211	666,211	666,211
3	Less Accumulated Depreciation	(869,626)	(71,503)	(73,300)	(75,257)	(77,134)	(79,011)	(80,888)	(80,888)
4	Other (A)	(236,408)	(236,408)	(236,408)	(236,408)	(236,408)	(236,408)	(236,408)	(236,408)
5	Net Investment (Lines 2 + 3 + 4)	\$560,177	558,300	556,423	554,546	552,669	550,792	548,915	548,915
6	Average Net Investment	559,239	557,362	555,485	553,608	551,731	549,854	548,054	548,054
7	Return on Average Net Investment								
a	Equity Component Crossed Up For Taxes (B)	4,112	4,098	4,085	4,071	4,057	4,043	4,043	\$24,468
b	Debt Component (Line 6 x 2.82% x 1/12)	1,314	1,310	1,305	1,301	1,297	1,292	1,292	7,819
8	Investment Expenses								
a	Depreciation	1,877	1,877	1,877	1,877	1,877	1,877	1,877	11,262
b	Amortization	0	0	0	0	0	0	0	0
c	Dimand/ment	0	0	0	0	0	0	0	0
d	Property Taxes	0	0	0	0	0	0	0	0
e	Other	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)	7,303	7,285	7,267	7,249	7,231	7,212	7,212	43,547
a	Recoverable Costs Allocated to Energy	7,303	7,285	7,267	7,249	7,231	7,212	7,212	43,547
b	Recoverable Costs Allocated to Demand	0	0	0	0	0	0	0	0
10	Energy Jurisdictional Factor	0.9681851	0.9678013	0.9680008	0.9718778	0.9736470	0.9689158	0.9689158	0.9689158
11	Demand Jurisdictional Factor	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12	Retail Energy-Related Recoverable Costs (C)	7,071	7,049	7,034	7,045	7,040	7,040	6,986	42,227
13	Retail Demand-Related Recoverable Costs (D)	0	0	0	0	0	0	0	0
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)	\$7,071	\$7,049	\$7,034	\$7,045	\$7,040	\$7,040	\$6,986	\$42,227

Notes

- (A) Represents Line Net Book Value of the replaced Big Bend Unit 4 CEMs which is currently recovered through base rates
- (B) Lines 6 x 8.8238% x 1/12. Based on ROE of 11.75% and weighted income tax rate of 38.575% (expansion factor of 1.628002)
- (C) Line 9a x Line 10
- (D) Line 9b x Line 11

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
October 1997 - March 1998
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend Unit 3 Flue Gas Desulfurization Integration

Project Description:

The existing FGD system on Big Bend Unit 4 was tested and found to be capable of cleaning the flue gases from Unit 3 at a fraction of the cost of adding a new FGD system for this purpose.

This project involved the integration of Big Bend Unit 3 flue gases into the Big Bend Unit 4 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:

The system is complete and in compliance.

Project Fiscal Expenditures: The estimated/actual depreciation plus return for the period April 1997 through September 1997 was \$568,804 compared to the original projection of \$565,080.

The estimated/actual O&M expense for the period April 1997 through September 1997 was \$771,778 compared to the original projection of \$876,911. The -12% variance is due to lower than expected maintenance expenses and lower than projected use of the FGD system by Big Bend Unit 3.

Project Progress Summary: The project is in service.

Project Projections: Estimated project expenditures for depreciation plus return for the period October 1997 through March 1998 are expected to be \$562,090. Estimated O&M costs are \$862,380 for the period October 1997 to March 1998.

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
October 1997 - March 1998
Description and Progress Report for
Environmental Compliance Activities and Projects

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

Project Description:

The existing electrostatic precipitators were not designed for the range of fuels needed for compliance with the CAAA. Flue gas conditioning was required to assure operation of the generating units in accordance with applicable permits and regulations.

The project involved the addition of liquid sulfur unloading, storage and conveying to sulfur burners and catalytic converters where SO₂ is converted to SO₃. The control and injection system then injects this into the ductwork ahead of the electrostatic precipitators.

Project Accomplishments:

The system is complete and in compliance.

Project Fiscal Expenditures: The estimated/actual depreciation plus return for the period April 1997 through September 1997 was \$344,946 compared to the original projection of \$344,946.

The estimated/actual O&M for the period April 1997 through September 1997 was \$26,808 compared to the original projection of \$27,498.

Project Progress Summary: The project is in service.

Project Projections: Estimated project expenditures for depreciation plus return for the period October 1997 through March 1998 are expected to be \$340,192. Estimated project expenditures for O&M for the period October 1997 through March 1998 are expected to be \$25,599.

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
October 1997 - March 1998
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: Big Bend Unit 4 Continuous Emissions Monitors

Project Description:

Continuous emissions monitors (CEMs) were installed on the flue gas inlet and outlet of Big Bend Unit 4 monitor compliance with the CAAA requirements. The monitors are capable of measuring, recording and electronically reporting SO₂, Nox 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:

The system is complete and in compliance

Project Fiscal Expenditures: The estimated/actual depreciation plus return for the period April 1997 through September 1997 was \$44,203 compared to the original projection of \$44,203.

The estimated/actual O&M for the period April 1997 through September 1997 was \$0 compared to the original projection of \$0.

Project Progress Summary: The project is in service

Project Projections: Estimated project expenditures for depreciation plus return for the period October 1997 through March 1998 are expected to be \$43,547. Estimated O&M costs are \$0 for the period October 1997 to March 1998.

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
October 1997 - March 1998
Description and Progress Report for
Environmental Compliance Activities and Projects

Project Title: SO2 Emission Allowances

Project Description:

The acid rain control title of the Clean Air Act Amendments (CAAA) of 1990 sets forth a comprehensive regulatory mechanism designed to control acid rain by limiting sulfur dioxide emissions by electric utilities. The CAAA require reductions in sulfur dioxide 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 about 40 jurisdictional utility systems that are expected to reduce annual sulfur dioxide emissions by as much as 4.5 million tons. Phase II begins 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 Environmental Protection Agency (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 sulfur dioxide) equal to the number of tons of sulfur dioxide emissions authorized by the CAAA. EPA does not assess a charge for the allowances it awards.

Project Accomplishments:

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

Project Fiscal Expenditures: The estimated/actual depreciation plus return for the period April 1997 through September 1997 was \$0 compared to the original projection of \$0.

The estimated/actual O&M for the period April 1997 through September 1997 was \$1,683,119 compared to the original projection of \$779,637. The 115.9% variance is due to an unexpected decrease in SO2 allowance market price and changes in company purchasing strategy as described on pages 5 and 6 of my testimony.

Progress Summary: The project is in service.

Project Projections: Estimated O&M costs are \$1,412,578 for the period October 1997 through March 1998.

Tampa Electric Company
 Environmental Cost Recovery Clause (ECRC)
 Calculation of the Energy & Demand Allocation % By Rate Class
 October 1997 to March 1998

Rate Class	(1) Average 12 CP Load Factor at Meter (%)	(2) Projected Sales at Meter (kWh)	(3) Projected Avg 12 CP at Meter (kW)	(4) Demand Loss Expansion Factor	(5) Energy Loss Expansion Factor	(6) Projected Sales at Generation (kWh)	(7) Projected Avg 12 CP at Generation (kW)	(8) Percentage of kWh Sales at Generation (%)	(9) Percentage of 12 CP Demand at Generation (%)	(10) 12 CP & 1/13 Allocation Factor (%)
RS, RST	53.57738%	2,992,140,000	637,524	1.066114	1.059519	3,170,229,181	679,673	42.24%	56.82%	55.70%
GS, GST, TS	55.78012%	406,941,000	83,281	1.065889	1.059519	431,161,721	88,768	5.75%	7.42%	7.29%
GSD, GSDT	74.11021%	1,871,666,000	288,301	1.064600	1.058388	1,990,948,834	306,925	26.40%	25.66%	25.71%
GSLD, GSLDT, SBF, SBFT	82.89978%	829,203,000	114,184	1.048214	1.042045	864,066,840	119,689	11.51%	10.01%	10.13%
IS1, IST1, SB11, IS3, IS3T, SB13	97.33992%	962,285,000	0	1.022142	1.020002	981,532,625	0	13.08%	0.00%	1.01%
SL/OL	819.04490%	72,375,000	1,009	1.055556	1.059521	78,682,832	1,065	1.02%	0.09%	0.16%
TOTAL		7,134,610,000	1,124,299			7,504,822,033	1,196,120	100.00%	100.00%	100.00%

Notes:

- (1) Average 12 CP load factor based on actual 1995 load research data
- (2) Projected kWh sales for the period October 1997 to March 1998
- (3) Calculated: (Column 2) / (8,760 hours X Column 1)
- (4) Based on projected 1996 demand losses
- (5) Based on projected 1996 energy losses
- (6) Column 2 X Column 5
- (7) Column 3 X Column 4
- (8) Column 6 / Total Column 6
- (9) Column 7 / Total Column 7
- (10) Column 8 X 1/13 + Column 9 X 12/13

Form 42-7P

Tampa Electric Company
 Environmental Cost Recovery Clause (ECRC)
 Calculation of the Energy & Demand Allocation % By Rate Class
 October 1997 to March 1998

Rate Class	(1) Percentage of KWh Sales at Generation (%)	(2) 12 CP & 1/13 Allocation Factor (%)	(3) Energy- Related Costs (\$)	(4) Demand- Related Costs (\$)	(5) Total Environmental Costs (\$)	(6) Projected Sales, at Meter (KWh)	(7) Environmental Cost Recovery Factors (\$/KWh)
RS, RST	42.24%	55.70%	1,621,027	0	1,621,027	2,992,140,000	0.054
GS, GST, TS	5.75%	7.29%	220,665	0	220,665	406,941,000	0.054
GSD, GSDT	26.40%	25.71%	1,013,142	0	1,013,142	1,871,696,000	0.054
GSLD, GSLDT, SBF, SBT	11.51%	10.13%	441,714	0	441,714	833,203,000	0.053
IST, IST1, SB1, IS3, IS3T, SB13	13.08%	1.01%	501,966	0	501,966	962,285,000	0.052
SUOL	1.02%	0.16%	39,144	0	39,144	72,375,000	0.054
TOTAL	100.00%	100.00%	3,837,658	0	3,837,658	7,134,610,000	

Notes

- (1) From Form 42-6P, Column 8
- (2) From Form 42-6P, Column 10
- (3) Column 1 x Total Jurisdictional Energy Dollars from Form 42-1P, line 5
- (4) Column 2 x Total Jurisdictional Demand Dollars from Form 42-1P, line 5
- (5) Column 3 + Column 4
- (6) Projected KWH sales for the period October 1997 to March 1998
- (7) Column 5 / Column 6 x 100

Tampa Electric Company
 Environmental Cost Recovery Clause (ECRC)
 Calculation of the Current (Actual/Estimated) Period True-Up
 April 1997 to September 1997

(in Dollars)

Line	Period Amount
1 Over/(Under) Recovery for the current period (Form 42-2E Line 5)	(\$633,516)
2 Interest Provision (Form 42-2E Line 6)	(10,030)
3 Sum of Current Period Adjustments (Form 42-2E Line 10)	0
4 Current Period True-Up Amount to be refunded/recovered in the projection period October 1997 to March 1998 (Lines 1 + 2 + 3)	(\$643,546)

Form 42-2E

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Actual/Estimated Period True-Up Amount
April 1997 to September 1997

Current Period True-Up Amount
(in Dollars)

Line	Actual April 97	Actual May 97	Estimated June 97	Estimated July 97	Estimated August 97	Estimated September 97	End of Period Total
1	\$372,541	\$387,363	\$465,556	\$486,281	\$480,891	\$486,954	\$2,679,506
2	(39,852)	(39,852)	(39,852)	(39,852)	(39,852)	(39,854)	(239,294)
3	332,659	347,481	425,674	446,389	441,009	447,070	2,440,292
4	Jurisdictional ECRC Costs						
a	250,450	316,953	440,268	454,202	449,916	450,239	2,362,048
b	152,845	152,568	152,182	151,220	151,120	152,027	911,760
c	603,095	469,519	592,470	605,422	601,036	602,268	3,273,808
5	(70,436)	(122,036)	(166,796)	(159,023)	(160,027)	(155,196)	(833,516)
6	(464)	(725)	(1,257)	(1,922)	(2,530)	(3,132)	(10,000)
7	(82,945)	(113,853)	(196,744)	(324,915)	(445,978)	(568,653)	(82,645)
8	39,852	39,852	39,852	39,852	39,852	39,854	239,294
9	(113,853)	(196,744)	(324,915)	(445,978)	(568,653)	(687,097)	(687,097)
10	0	0	0	0	0	0	0
11	(\$113,853)	(\$196,744)	(\$324,915)	(\$445,978)	(\$568,653)	(\$687,097)	(\$687,097)

Tampa Electric Company
 Environmental Cost Recovery Clause (ECRC)
 Calculation of the Actual/Estimated Period True-Up
 April 1997 to September 1997

Interest Provision
 (in Dollars)

Line	Actual April 97	Actual May 97	Estimated June 97	Estimated July 97	Estimated August 97	Estimated September 97	End of Period Amount
1 Beginning Balance True-Up Amount (Form 42-2E, Line 7)	(\$82,845)	(\$113,863)	(\$196,744)	(\$324,915)	(\$445,978)	(\$568,653)	(\$568,653)
2 Ending True-Up Amount Before Interest	(113,399)	(196,015)	(323,656)	(444,056)	(568,123)	(683,965)	(683,965)
3 Total of Beginning & Ending True-Up (Lines 1 & 2)	(196,244)	(309,877)	(520,402)	(768,971)	(1,012,101)	(1,252,618)	(1,252,618)
4 Average True-Up Amount (Line 3 x 1/2)	(98,122)	(154,941)	(260,201)	(384,486)	(506,051)	(626,309)	(626,309)
5 Interest Rate (First Day of Reporting Business Month)	5.74%	5.82%	5.60%	6.00%	6.00%	6.00%	6.00%
6 Interest Rate (First Day of Subsequent Business Month)	5.82%	5.60%	6.00%	6.00%	6.00%	6.00%	6.00%
7 Total of Beginning & Ending Interest Rates (Lines 5 & 6)	11.30%	11.22%	11.60%	12.00%	12.00%	12.00%	12.00%
8 Average Interest Rate (Line 7 x 1/2)	5.69%	5.61%	5.80%	6.00%	6.00%	6.00%	6.00%
9 Monthly Average Interest Rate (Line 8 x 1/12)	0.473%	0.468%	0.483%	0.500%	0.500%	0.500%	0.500%
10 Interest Provision for the Month (Line 4 x Line 9)	(\$464)	(\$725)	(\$1,257)	(\$1,922)	(\$2,530)	(\$3,132)	(\$10,030)

Tampa Electric Company
 Environmental Cost Recovery Clause (ECRC)
 Calculation of the Current Period Actual/Estimated Amount
 April 1997 to September 1997

Variance Report of O & M Activities
 (In Dollars)

Line No	Description of Investment Projects	(1)	(2)	(3)	(4)
		Actual/Estimated	Original Projection	Variance Amount	Variance Percent
1	Description of Investment Projects				
1a	Big Bend Unit 3 Flue Gas Desulfurization Integration	\$771,778	\$878,911	(\$105,133)	-12.0%
1b	Big Bend Units 1 and 2 Flue Gas Conditioning	26,808	27,498	(690)	-2.5%
1c	Big Bend Unit 4 Continuous Emissions Monitors	0	0	0	0.0%
1d	SO2 Emissions Allowances	1,683,119	779,637	903,482	115.9%
2	Total Investment Projects - Recoverable Costs	2,461,705	1,684,046	797,659	47.4%
3	Recoverable Costs Allocated to Energy	2,461,705	1,684,046	797,659	47.4%
4	Recoverable Costs Allocated to Demand	\$0	\$0	\$0	0.0%

Notes.

- 1. Column (1) is the End of Period Totals on Form 42-SE
- 2. Column (2) is the approved projected amount in accordance with FPSC Order No. PSC 97-0293-FOF-EI
- 3. Column (3) = Column (1) - Column (2)
- 4. Column (4) = Column (3) / Column (2)

Tampa Electric Company
 Environmental Cost Recovery Clause (ECRC)
 Calculation of the Current Period Actual/Estimated Amount
 April 1997 to September 1997

O&M Activities
 (in Dollars)

Line	Description of O&M Activities	O&M Activities (in Dollars)							End of Period Total	Method of Classification
		Actual April 97	Actual May 97	Estimated June 97	Estimated July 97	Estimated August 97	Estimated September 97	Energy Demand		
1	Description of O&M Activities									
1a	Big Bend Unit 3 Flue Gas Desulfurization Integration	\$160,404	\$120,546	\$121,693	\$123,862	\$118,690	\$126,583	\$771,778	\$771,778	
1b	Big Bend Units 1 and 2 Flue Gas Conditioning	4,298	4,178	4,563	4,583	4,583	4,583	26,808	26,808	
1c	Big Bend Unit 4 Continuous Emissions Monitors	0	0	0	0	0	0	0	0	
1d	SO2 Emissions Allowances	96,637	208,011	336,132	350,596	350,562	339,181	1,683,119	1,683,119	
2	Total of O&M Activities	263,339	332,735	462,406	479,041	473,835	470,347	2,481,705	\$0	
3	Recoverable Costs Allocated to Energy	263,339	332,735	462,406	479,041	473,835	470,347	2,481,705	0	
4	Recoverable Costs Allocated to Demand	0	0	0	0	0	0	0	0	
5	Retail Energy Jurisdictional Factor	0	9525676	0	9481489	0	9495201	0	9572481	
6	Retail Demand Jurisdictional Factor	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
7	Jurisdictional Energy Recoverable Costs (A)	250,450	316,953	440,288	454,202	449,916	450,239	2,362,048	0	
8	Jurisdictional Demand Recoverable Costs (B)	0	0	0	0	0	0	0	0	
9	Total Jurisdictional Recoverable Costs for O&M Activities (Lines 7 + 8)	\$250,450	\$316,953	\$440,288	\$454,202	\$449,916	\$450,239	\$2,362,048	\$2,362,048	

Notes:

- (A) Line 3 x Line 5
- (B) Line 4 x Line 6

Tampa Electric Company
 Environmental Cost Recovery Clause (ECRC)
 Calculation of the Current Period Actual/Estimated Amount
 April 1997 to September 1997

Variance Report of Capital Investment Projects - Recoverable Costs
 (In Dollars)

Line No.	(1) Actual/ Estimated	(2) Original Projection	(4) Variance	
			Amount	Percent
1				
1a	\$568,804	\$565,080	\$3,724	0.7%
1b	344,946	344,946	0	0.0%
1c	44,203	44,203	0	0.0%
1d	0	0	0	0.0%
2	957,953	954,229	3,724	0.4%
3	957,953	954,229	3,724	0.4%
4	\$0	\$0	\$0	0.0%

- 1 Description of Investment Projects
 - 1a Big Bend Unit 3 Flue Gas Desulfurization Integration
 - 1b Big Bend Units 1 and 2 Flue Gas Conditioning
 - 1c Big Bend Unit 4 Continuous Emissions Monitors
 - 1d SO2 Emissions Allowances

- 2 Total Investment Projects - Recoverable Costs
- 3 Recoverable Costs Allocated to Energy
- 4 Recoverable Costs Allocated to Demand

Notes:
 Column (1) is the End of Period Totals on Form 42-7E
 Column (2) is the approved Projected amount in accordance with FPSC Order No. PSC 97-2083-FOF-EI
 Column (3) = Column (1) - Column (2)
 Column (4) = Column (3) / Column (2)

Tampa Electric Company
 Environmental Cost Recovery Clause (ECRC)
 Calculation of the Current Period Actual/Estimated Amount
 April 1997 to September 1997

Capital Investment Projects - Recoverable Costs
 (in Dollars)

Line	Description of Investment Projects (A)	Estimated						End of Period Total	Method of Classification
		Actual April 97	Actual May 97	Estimated June 97	Estimated July 97	Estimated August 97	Estimated September 97		
1	Description of Investment Projects (A)								
	1a Big Bend Unit 3 Flue Gas Desulfurization Integration	\$95,267	\$95,080	\$94,894	\$94,708	\$94,521	\$94,334	\$568,804	\$568,804
	1b Big Bend Units 1 and 2 Flue Gas Conditioning	57,821	57,689	57,557	57,425	57,293	57,161	344,948	344,948
	1c Big Bend Unit 4 Continuous Emissions Monitors	7,413	7,384	7,378	7,358	7,340	7,322	44,203	44,203
	1d SO2 Emissions Allowances	0	0	0	0	0	0	0	0
	Total Investment Projects - Recoverable Costs	160,501	160,163	159,827	159,491	159,154	158,817	957,953	80
3	Recoverable Costs Allocated to Energy	160,501	160,163	159,827	159,491	159,154	158,817	957,953	
4	Recoverable Costs Allocated to Demand	0	0	0	0	0	0	0	
5	Retail Energy Jurisdictional Factor	0 95105-46	0 9525678	0 9521833	0 9481489	0 9495201	0 9572481		
6	Retail Demand Jurisdictional Factor	N/A	N/A	N/A	N/A	N/A	N/A		
7	Jurisdictional Energy Recoverable Costs (B)	152,645	152,566	152,182	151,220	151,120	152,027	911,790	
8	Jurisdictional Demand Recoverable Costs (C)	0	0	0	0	0	0	0	
9	Total Jurisdictional Recoverable Costs for Investment Projects (Lines 7 + 8)	\$152,645	\$152,566	\$152,182	\$151,220	\$151,120	\$152,027	\$911,790	

Notes:

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

Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Actual/Estimated Amount for the Period
April 1997 to September 1997

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

Line	Description	Beginning of Period Amount	Actual April 97	Actual May 97	Estimated June 97	Estimated July 97	Estimated August 97	Estimated September 97	End of Period Amount
1	Investments								
a	Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0
b	Clearings to Plant		0	0	0	0	0	0	0
c	Retirements		0	0	0	0	0	0	0
d	Other		0	0	0	0	0	0	0
2	Plant-in-Service/Depreciation Base	\$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	(393,303)	(412,529)	(431,755)	(450,981)	(470,207)	(489,433)	(508,659)	
4	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	
5	Net Investment (Lines 2 + 3 + 4)	\$7,846,355	7,827,129	7,807,903	7,788,677	7,769,451	7,750,225	7,730,999	
6	Average Net Investment		7,836,742	7,817,516	7,798,290	7,779,064	7,759,838	7,740,612	
7	Return on Average Net Investment								
a	Equity Component Grossed Up For Taxes (A)		57,625	57,483	57,342	57,201	57,059	56,918	\$343,628
b	Debt Component (Line 6 x 2.82% x 1/12)		18,410	18,371	18,328	18,281	18,236	18,190	109,820
8	Investment Expenses								
a	Depreciation		19,226	19,226	19,226	19,226	19,226	19,226	115,356
b	Amortization		0	0	0	0	0	0	0
c	Dismantlement		0	0	0	0	0	0	0
d	Property Taxes		0	0	0	0	0	0	0
e	Other		0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)		95,267	95,080	94,894	94,708	94,521	94,334	568,804
a	Recoverable Costs Allocated to Energy		95,267	95,080	94,894	94,708	94,521	94,334	568,804
b	Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0
10	Energy Jurisdictional Factor		0.9510546	0.9525676	0.9521833	0.9481489	0.9495201	0.9572481	
11	Demand Jurisdictional Factor		N/A	N/A	N/A	N/A	N/A	N/A	
12	Retail Energy-Related Recoverable Costs (B)		90,604	90,570	90,355	89,797	89,750	90,301	541,377
13	Retail Demand-Related Recoverable Costs (C)		0	0	0	0	0	0	0
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$90,604	\$90,570	\$90,355	\$89,797	\$89,750	\$90,301	\$541,377

Notes:
(A) Lines 6 x 0.8238% x 1/12. Based on ROE of 11.75% and weighted income tax rate of 38.575% (expansion factor of 1.628002)
(B) Line 9a x Line 10
(C) Line 9b x Line 11

Tampa Electric Company
 Environmental Cost Recovery Clause (ECRC)
 Calculation of the Actual/Estimated Amount for the Period
 April 1997 to September 1997

Form 42 - 6E
 Page 2 of 3

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	Actual April 97	Actual May 97	Estimated June 97	Estimated July 97	Estimated August 97	Estimated September 97	End of Period Amount
1	Investments								
a	Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	
b	Clearings to Plant		0	0	0	0	0	0	
c	Retirements		0	0	0	0	0	0	
d	Other		0	0	0	0	0	0	
2	Plant-in-Service/Depreciation Base	\$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	(454,010)	(487,614)	(481,218)	(494,822)	(508,426)	(522,030)	(535,634)	
4	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	
5	Net Investment (Lines 2 + 3 + 4)	\$4,563,724	4,550,120	4,536,516	4,522,912	4,509,308	4,495,704	4,482,100	
6	Average Net Investment		4,558,922	4,543,318	4,529,714	4,516,110	4,502,508	4,488,902	
7	Return on Average Net Investment								
a	Equity Component Grossed Up For Taxes (A)		33,508	33,408	33,308	33,208	33,108	33,008	\$199,548
b	Debt Component (Line 6 x 2.82% x 1/12)		10,709	10,877	10,845	10,813	10,581	10,549	83,774
8	Investment Expenses								
a	Depreciation		13,604	13,604	13,604	13,604	13,604	13,604	81,624
b	Amortization		0	0	0	0	0	0	0
c	Dismantlement		0	0	0	0	0	0	0
d	Property Taxes		0	0	0	0	0	0	0
e	Other		0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)		57,821	57,689	57,557	57,425	57,293	57,161	344,948
a	Recoverable Costs Allocated to Energy		57,821	57,689	57,557	57,425	57,293	57,161	344,948
b	Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0
10	Energy Jurisdictional Factor		0.9510548	0.9525876	0.9521633	0.9481489	0.9495201	0.9572481	
11	Demand Jurisdictional Factor		N/A	N/A	N/A	N/A	N/A	N/A	
12	Retail Energy-Related Recoverable Costs (B)		54,991	54,953	54,804	54,447	54,401	54,717	328,313
13	Retail Demand-Related Recoverable Costs (C)		0	0	0	0	0	0	0
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$54,991	\$54,953	\$54,804	\$54,447	\$54,401	\$54,717	\$328,313

Notes:

- (A) Lines 6 x 8.8238% x 1/12. Based on ROE of 11.75% and weighted income tax rate of 38.575% (expansion factor of 1.628002)
 (B) Line 9a x Line 10
 (C) Line 9b x Line 11

EXHIBIT NO. _____
 DOCKET NO. 970007-EI
 TAMPA ELECTRIC COMPANY
 (KAB-1)
 DOCUMENT NO. 15
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Tampa Electric Company
Environmental Cost Recovery Clause (ECRC)
Calculation of the Actual/Estimated Amount for the Period
April 1997 to September 1997

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

Line	Description	Beginning of Period Amount	Actual April 97	Actual May 97	Estimated June 97	Estimated July 97	Estimated August 97	Estimated September 97	End of Period Amount
1	Investments								
a	Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0
b	Clearings to Plant		0	0	0	0	0	0	0
c	Retirements		0	0	0	0	0	0	0
d	Other		0	0	0	0	0	0	0
2	Plant-in-Service/Depreciation Base	\$666,211	666,211	666,211	666,211	666,211	666,211	666,211	666,211
3	Less: Accumulated Depreciation	(58,364)	(60,241)	(62,118)	(63,995)	(65,872)	(67,749)	(69,626)	(69,626)
4	Other (A)	(236,408)	(236,408)	(236,408)	(236,408)	(236,408)	(236,408)	(236,408)	(236,408)
5	Net Investment (Lines 2 + 3 + 4)	\$571,439	569,562	567,695	565,808	563,931	562,054	560,177	560,177
6	Average Net Investment		570,501	568,624	566,747	564,870	562,993	561,116	
7	Return on Average Net Investment								
a	Equity Component Grossed Up For Taxes (B)		4,195	4,181	4,167	4,154	4,140	4,126	\$24,983
b	Debt Component (Line 6 x 2.82% x 1/12)		1,341	1,336	1,332	1,327	1,323	1,319	7,978
8	Investment Expenses								
a	Depreciation		1,877	1,877	1,877	1,877	1,877	1,877	11,282
b	Amortization		0	0	0	0	0	0	0
c	Dismantlement		0	0	0	0	0	0	0
d	Property Taxes		0	0	0	0	0	0	0
e	Other		0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)		7,413	7,394	7,376	7,358	7,340	7,322	44,203
a	Recoverable Costs Allocated to Energy		7,413	7,394	7,376	7,358	7,340	7,322	44,203
b	Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0
10	Energy Jurisdictional Factor		0.9510546	0.9525678	0.9521633	0.9481489	0.9465201	0.9572481	
11	Demand Jurisdictional Factor		N/A	N/A	N/A	N/A	N/A	N/A	
12	Retail Energy-Related Recoverable Costs (C)		7,050	7,043	7,023	6,978	6,969	7,009	42,070
13	Retail Demand-Related Recoverable Costs (D)		0	0	0	0	0	0	0
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$7,050	\$7,043	\$7,023	\$6,978	\$6,969	\$7,009	\$42,070

Notes:

- (A) Represents the Net Book Value of the replaced Big Bend Unit 4 CEMs which is currently recovered through base rates.
- (B) Lines 8 x 6.8238% x 1/12. Based on ROE of 11.75% and weighted income tax rate of 38.575% (expansion factor of 1.628002)
- (C) Line 8a x Line 10
- (D) Line 8b x Line 11

TAMPA ELECTRIC COMPANY
 1997 Year -to-Date SULFUR DIOXIDE ALLOWANCE PURCHASES

Purchase Date	Quantity	Price / Ton	Dollars	Broker Commission	Purchased From	Lead Offer
Jan-97	5,000	190.19	950,950.00	Firm Contract	LILCO	N/A
Mar-97	5,000	87.00	435,000.00		ENRON	N/A
Mar-97	5,000	110.50	552,500.00	Paid	ENRON	112.00
Mar-97	5,000	111.50	557,500.00	Paid	ENRON	114.00
Mar-97	1,000	108.14	108,140.00		EPA	N/A
May-97	2,000	99.25	198,500.00		ENRON	102.00
Jun-97	2,000	94.00	188,000.00	Paid	ENRON	96.00
Jun-97	3,000	90.00	270,000.00	Paid	AIG	92.00
Year-to-date Total	28,000	890.58	3,260,590.00			

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