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ORIGINAL

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February 6, 1998

HAND DELIVERED

Ms. Blanca S. Bayo, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

Re: Fuel and Purchased Power Cost Recovery Clause  
with Generating Performance Incentive Factor;  
FPSC Docket No. 980001-EI

Dear Ms. Bayo:

Enclosed for filing in the above docket are the original and ten (10) copies of Tampa Electric Company's Prehearing Statement, along with a diskette containing the above-referenced Prehearing Statement in WordPerfect 5.0 format.

Also enclosed are ten (10) copies of Prepared Direct Testimony of Karen O. Zwolak (Revised February 6, 1998). This testimony changes certain amounts to reflect the inclusion of an interest provision that was left out in the initial testimony. We have bolded the revised numbers in Ms. Zwolak's testimony to make them easier to locate.

ACK \_\_\_\_\_  
AFA Wardner Also enclosed are ten (10) copies of revised schedules supporting Ms. Zwolak's testimony which reflect the revisions noted above.  
APP \_\_\_\_\_

CAF \_\_\_\_\_ We would appreciate your distributing the revised testimony and exhibits to the recipients of the initial filing with the Commission so they may substitute the revised materials in place of the originals.  
CMU \_\_\_\_\_  
CTR \_\_\_\_\_

EAG Wardner  
LEG Wardner Please acknowledge receipt and filing of the above by stamping the duplicate copy of this letter and returning same to this office.  
LIT \_\_\_\_\_

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Prehearing  
DOCUMENT NUMBER - DATE  
01962 FEB-6 98  
FPSC DOCKET NO. 980001-EI

Testimony  
DOCUMENT NUMBER - DATE  
01963 FEB-6 98  
FPSC DOCKET NO. 980001-EI

Ms. Blanca S. Bayo  
February 6, 1998  
Page Two

Thank you for your assistance in connection with this matter.

Sincerely,

  
James D. Beasley

JDB/pp  
Enclosures

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

ORIGINAL

TAMPA ELECTRIC COMPANY  
DOCKET NO. 980001-EI  
SUBMITTED FOR FILING 01/15/98  
REVISED 2/6/98

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION  
PREPARED DIRECT TESTIMONY  
OF  
KAREN O. ZWOLAK

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

A. My name is Karen O. Zwolak. My business address is 702 North Franklin Street, Tampa, Florida 33602. My position is Manager - Energy Issues in the Regulatory Affairs Department of Tampa Electric Company.

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

A. I received a Bachelor of Arts Degree in Microbiology in 1977 and a Bachelor of Science degree in Chemical Engineering in 1985 from the University of South Florida. I began my engineering career in 1986 at the Florida Department of Environmental Regulation and was employed as a Permitting Engineer in the Industrial Wastewater Program. In 1990, I joined Tampa Electric Company as an engineer in the Environmental Planning Department and was responsible for permitting and compliance issues relating to wastewater treatment and disposal. In 1995, I transferred to TEC's

01953 FEB-98  
FPC-REGULATORY DIVISION

1 Energy Supply Department and assumed the duties of the  
2 plant chemical engineer at the F. J. Gannon Station. In  
3 this position, I was responsible for boiler chemistry,  
4 water management, and maintenance of environmental  
5 equipment and general engineering support. In 1997, I was  
6 promoted to Manager, Energy Issues in the Electric  
7 Regulatory Affairs Department. My present responsibilities  
8 include the areas of fuel adjustment, capacity cost  
9 recovery, environmental filings and rate design.

10

11 Q. What is the purpose of your testimony?

12

13 A. The purpose of my testimony is to present to the Commission  
14 the proposed Total Fuel and Purchased Power Cost Recovery  
15 factors, the proposed Capacity Cost Recovery factors and  
16 the Temporary Base Rate Reduction factors for the period of  
17 April 1998 - September 1998.

18

19 Fuel and Purchased Power Cost Recovery Factors / Capacity Cost  
20 Recovery Clause

21

22 Q. Did you review the projected data necessary to calculate  
23 the Total Fuel and Purchased Power Cost Recovery factors  
24 for the period April 1998 - September 1998?

25

- 1   **A.**   Yes I have.  
2
- 3   **Q.**   Do you wish to sponsor an exhibit consisting of Schedules  
4       H-1 (April - September, 1995 through 1998) and Schedules E-  
5       1 through E-10 (April 1998 - September 1998)?  
6
- 7   **A.**   Yes. Also contained in this exhibit are Schedules E-2, E-  
8       3, E-5, E-6, E-7, E-8 and E-9 for the prior period October  
9       1997 - March 1998. These schedules are furnished as back-  
10      up for the projected true-up for this period and consist of  
11      two actual months and four projected months.  
12
- 13       (Have identified as Exhibit No. \_\_\_\_ (KOZ-2), Fuel  
14      Projection.)  
15
- 16   **Q.**   Does Schedule E-1 of Exhibit No. \_\_\_\_ (KOZ-2), Fuel  
17      Projection, show the proper value for the Total Fuel and  
18      Purchased Power Cost Recovery Clause as projected for the  
19      period April 1998 - September 1998?  
20
- 21   **A.**   Yes.  
22
- 23   **Q.**   What is the proper value of the fuel adjustment for the new  
24      period?  
25

- 1   **A.**   The proper value for the new period is 2.337 cents per kwh  
2           before the application of the factors that adjust for  
3           variations in line losses.  
4
- 5   **Q.**   Please describe the information provided on Schedule E-1C.  
6
- 7   **A.**   The GPIF and True-up factors are provided on Schedule E-1C.  
8           We propose that a GPIF penalty of (\$363,850) be included in  
9           the projection period. The True-up amount for the October  
10          1997 - March 1998 period is an overrecovery of \$4,373,121.  
11          This overrecovery is comprised of a final True-up  
12          underrecovery amount of (\$6,042,407) for the April 1997 -  
13          September 1997 period and an estimated overrecovery in the  
14          amount of \$10,415,528 for the October 1997 - March 1998  
15          period.  
16
- 17   **Q.**   Please describe the information provided on Schedule E-1D.  
18
- 19   **A.**   Schedule E-1D presents the company's on-peak and off-peak  
20          fuel charge factors for the April 1998 - September 1998  
21          period.  
22
- 23   **Q.**   What is the purpose of Schedule E-1E?  
24
- 25   **A.**   The purpose of Schedule E-1E is to present the standard,

1 on-peak and off-peak fuel charge factors after adjusting  
2 for variations in line losses.

3

4 Q. Please recap the proposed Fuel and Purchased Power Cost  
5 Recovery factors for the April 1998 - September 1998  
6 period.

7

8 A.

Fuel Charge

9 Rate Schedule

Factor (cents per kwh)

10 Average Factor

2.337

11 RS, GS and TS

2.354

12 RST and GST

3.334 (on-peak)

13

1.883 (off-peak)

14 SL-2, OL-1 and OL-3

2.101

15 GSD, GSLD, and SBF

2.340

16 GSDT, GSLDT, EV-X and SBFT

3.314 (on-peak)

17

1.872 (off-peak)

18 IS-1, IS-3, SBI-1, SBI-3

2.264

19 IST-1, IST-3, SBIT-1, SBIT-3

3.206 (on-peak)

20

1.811 (off-peak)

21

22 Q. How does Tampa Electric Company's proposed average fuel  
23 charge factor of 2.337 cents per kwh compare to the average  
24 fuel charge factor for the October 1997 - March 1998  
25 period?

- 1 A. The proposed fuel charge factor is 0.033 cents per kwh (or  
2 \$0.33 per 1000 kwh) higher than the average fuel charge  
3 factor of 2.304 cents per kwh for the October 1997 - March  
4 1998 period.  
5
- 6 Q. Are you also requesting Commission approval of the  
7 projected Capacity Cost Recovery factors for the Company's  
8 various rate schedules?  
9
- 10 A. Yes.  
11
- 12 Q. Have you prepared or caused to be prepared under your  
13 direction or supervision an exhibit which supports this  
14 request?  
15
- 16 A. Yes. It consists of five pages identified as Exhibit No.  
17 \_\_\_\_\_ KOZ-3, Capacity Cost Recovery.  
18
- 19 Q. What payments are included in Tampa Electric's capacity  
20 cost recovery factor?  
21
- 22 A. Tampa Electric is requesting recovery, through the capacity  
23 cost recovery factor, of capacity payments made pursuant to  
24 cogeneration, small power production and purchased power  
25 agreements to which we are a party.



1 Q. Please re-cap the proposed Capacity Cost Recovery Clause  
2 factors for the April 1998 - September 1998 period.

3

4 A. Capacity Cost Recovery

5 <u>Rate Schedule</u>	6 <u>Factor (cents per kwh)</u>
7 RS	0.188
8 GS and TS	0.181
9 GSD, EV-X	0.139
10 GSLD and SBF	0.123
11 IS-1, IS-3, SBI-1, SBI-3	0.011
12 SL-2, OL-1 and OL-3	0.022

13 These factors can be seen in Exhibit No. \_\_\_\_ (KOZ-3), page  
14 3 of 5.

15

16 Temporary Base Rate Reduction

17 Q. Is Tampa Electric requesting to modify the Temporary Base  
18 Rate Reduction factor for the period April 1998 through  
19 September 1998?

20

21 A. Yes. On September 25, 1996, Tampa Electric, the Office of  
22 Public Counsel and the Florida Industrial Power Users Group  
23 signed a separate stipulation. (Order No. PSC-96-1300-S-EI  
24 in Docket No. 960409-EI issued October 24, 1996.) As part  
25 of this Stipulation, Tampa Electric has agreed to a

1 temporary base rate reduction in the total amount of \$25  
2 million over fifteen months beginning about October 1,  
3 1997. This temporary base rate reduction is shown as a  
4 line item on the customer's bill.

5  
6 This temporary base rate decrease will be 0.130 cent per  
7 kWh on average. The factors by rate class, adjusted for  
8 line loss, are shown below. The derivation of these  
9 factors is shown in Document No. 4 of Exhibit KOZ-2.

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<u>Rate Class</u>	<u>Credit Factor cents / kWh</u>
Average Factor	0.130
RS, RST, GS, GST, TS	0.130
GSD, GSDT, GSLD, GSLDT, EV-X, SBF, SBFT	0.130
IS-1&3, IST-1&3, SBIT-1&3	0.125
SL, OL	0.130

- Q. What is the composite effect of the above changes on a  
1,000 kwh residential Customer?
- A. A residential bill for 1,000 kwh will decrease \$0.26  
beginning April 1998. See table below.

	Oct. 97 thru	Apr. 98 thru
<u>Type of Charge</u>	<u>Mar. 98</u>	<u>Sept. 98</u>
Customer	\$ 8.50	\$ 8.50
Energy	43.42	43.42
Conservation	1.63	1.65
Environmental	0.54	0.33
Fuel	23.21	23.54
Capacity	2.28	1.88
Deferred Revenue Plan		
Refund	(1.31)	(1.30)
FGR Tax	<u>2.01</u>	<u>2.00</u>
Total	\$ 80.28	\$ 80.02

- 14 Q. When should the new charges and refund go into effect?
- 15
- 16 A. They should go into effect commensurate with the first
- 17 billing cycle in April 1998.
- 18
- 19 Q. Does this conclude your testimony?
- 20
- 21 A. Yes it does.
- 22
- 23
- 24
- 25

## TAMPA ELECTRIC COMPANY

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PAGE NO.	DESCRIPTION	PERIOD
1	Schedule E-1 Cost Recovery Clause Calculation	(APR.,1998 - SEPT.,1998)
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3	Schedule E-1B Calculation of Estimated True-Up	(OCT.,1997 - MAR.,1998)
4	Schedule E-1B-1 Comparison of Est/ Act vs Original Proj of the Fuel and Pur. Pwr Cost Recovery Fac.	(OCT.,1997 - MAR.,1998)
5	Schedule E-1C GPIF & True-Up Adj. Factors	(APR.,1998 - SEPT.,1998)
6	Schedule E-1D Fuel Adjustment Factor for TOD	( " )
7	Schedule E-1E Fuel Recovery Factor-with Line Losses	( " )
8	Schedule E-2 Cost Recovery Clause Calculation(By Month)	( " )
9	Schedule E-3 Generating System Comparative Data	( " )
10-15	Schedule E-4 System Net Generation & Fuel Cost	( " )
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18	Schedule E-7 Purchased Power	( " )
19	Schedule E-8 Energy Payment to Qualifying Facilities	( " )
20	Schedule E-9 Economy Energy Purchases	( " )
21	Schedule E-10 Residential Bill Comparison	( " )
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29	Schedule H-1 Generating System Comparative Data	(APR. - SEPT., 1995-98)

**FUEL AND PURCHASED POWER  
COST RECOVERY CLAUSE CALCULATION  
TAMPA ELECTRIC COMPANY  
ESTIMATED FOR THE PERIOD OF: APRIL 1998 THRU SEPTEMBER 1998**

	DOLLARS	MWH	cents/KWH
1. Fuel Cost of System Net Generation (E3)	208,814,406	9,808,202	2 12888
2. Nuclear Fuel Disposal Cost	0	0	0 00000
3. Coal Car Investment	0	0	0 00000
4. Adjustments to Fuel Cost (Fl. Meade / Wauchula Wheeling)	(21,000)	9,808,202	(0 00021)
4a. Adjustments to Fuel Cost	0	0	0 00000
<b>5. TOTAL COST OF GENERATED POWER (LINES 1 THROUGH 4a)</b>	<b>208,793,406</b>	<b>9,808,202</b>	<b>2 12876</b>
6. Fuel Cost of Purchased Power - System (Exclusive of Economy)(E7)	10,422,500	336,033	3 10163
7. Energy Cost of Sch. C,X Economy Purchases (Broker) (E8)	1,441,500	33,264	4 33351
8. Energy Cost of Economy Purchases (Non-Broker) (E9)	0	0	0 00000
9. Energy Cost of Sch. E Economy Purchases (E9)	0	0	0 00000
10. Capacity Cost of Sch. E Economy Purchases (E2)	0	0	0 00000
11. Energy Payments to Qualifying Facilities (E8)	5,457,200	237,749	2 29536
<b>12. TOTAL COST OF PURCHASED POWER (LINES 6 THROUGH 11)</b>	<b>17,321,200</b>	<b>607,046</b>	<b>2 85336</b>
<b>13. TOTAL AVAILABLE KWH (LINE 5 + LINE 12)</b>		<b>10,415,248</b>	
14. Fuel Cost of Economy Sales (E6)	7,295,500	479,664	1 52096
15. Gain on Economy Sales - 80% (E5)	2,214,640	479,664	0 46171
16. Fuel Cost of Schedule D Sales - Jurisd. (E8)	534,700	30,734	1 73977
16a. Fuel Cost of Schedule D Sales - Separated (E8)	2,915,800	198,878	1 46612
16b. Fuel Cost of Schedule D HPP Sales - Contract (E8)	2,576,300	109,746	2 34751
16c. Fuel Cost of Schedule J Sales - Jurisd. (E8)	680,900	28,824	2 36227
17. Fuel Cost of Other D.F. Sales	5,552,500	373,320	1 48733
<b>18. TOTAL FUEL COST AND GAINS OF POWER SALES</b>	<b>21,770,340</b>	<b>1,221,166</b>	<b>1 78275</b>
19. Net Inadvertent Interchange		0	
19a. Wheeling Rec'd. less Wheeling Del'd.		0	
19b. Interchange and Wheeling Losses		18,600	
<b>20. TOTAL FUEL AND NET POWER TRANSACTIONS (LINE 5 + 12 + 19)</b>	<b>204,344,266</b>	<b>9,176,482</b>	<b>2 22707</b>
21. Net Unbilled	3,965,031	178,036	0 04321
22. Company Use	507,772	22,800	0 00595
23. T & D Losses	9,967,944	447,561	0 11690
24. System MWH Sales	204,344,266	8,527,063	2 39642
25. Wholesale MWH Sales	(2,273,623)	(94,549)	2 40470
26. Jurisdictional MWH Sales	202,070,643	8,432,514	2 39633
26a. Jurisdictional Loss Multiplier			1 00013
27. Jurisdictional MWH Sales Adjusted for Line Loss	202,096,912	8,432,514	2 39664
28. True-up **	(4,373,121)	8,432,514	(0 05186)
29. Peabody Coal Contract Buy-Out Amort. (Jurisdictionalized)	2,509,595	8,432,514	0 02976
30. Fuel Credit Differential	(2,938,153)	8,432,514	(0 03464)
31. Total Jurisdictional Fuel Cost (Excl. GPIF)	197,295,233	8,432,514	2 33970
32. Revenue Tax Factor			1 00083
33. Fuel Factor (Excl. GPIF) Adjusted for Taxes	197,458,988	8,432,514	2 34164
34. GPIF ** (Already Adjusted for Taxes)	(363,850)	8,432,514	(0 00431)
35. Fuel Factor Adjusted for Taxes including GPIF	<b>197,095,138</b>	<b>8,432,514</b>	<b>2 33733</b>
<b>36. Fuel Factor Rounded to Nearest .001 cents per KWH</b>			<b>2.337</b>

\* For Informational Purposes Only

\*\* Calculation Based on Jurisdictional KWH Sales

**CALCULATION OF TOTAL TRUE-UP  
(PROJECTED PERIOD)  
TAMPA ELECTRIC COMPANY  
FOR THE PERIOD: APRIL 1998 THRU SEPTEMBER 1998**

**SCHEDULE E1-A  
REVISED 2/6/98**

1. ESTIMATED OVER/(UNDER) RECOVERY (2 months actual, 4 months estimated period) (Schedule E1-B)	\$10,415,528
2. FINAL TRUE-UP (6 months actual period) (Per True-Up Filed in November 1997)	(\$6,042,407)
3. TOTAL OVER/(UNDER) RECOVERY (Lines 1 + 2) To be included in 6 month projected period (Schedule E1, line 29)	\$4,373,121
4. JURISDICTIONAL MWH SALES (Projected period)	8,432,514
5. TRUE-UP FACTOR (Lines 3/4) * (100 cents/1000 KWH)	<b>\$0.062</b>

CALCULATION OF ESTIMATED TRUE-UP  
(2 MONTHS ACTUAL, 4 MONTHS ESTIMATED)  
TAMPA ELECTRIC COMPANY  
FOR THE PERIOD OF: OCTOBER 1997 THRU MARCH 1998

	ACTUAL		ESTIMATED				TOTAL PERIOD
	Oct-97	Nov-97	Dec-97	Jan-98	Feb-98	Mar-98	
A 1. FUEL COST OF SYSTEM NET GENERATION	30,720,965	29,985,481	28,227,389	33,421,028	27,347,757	29,210,128	178,912,748
2. FUEL COST OF POWER SOLD *	4,559,181	6,107,143	3,845,820	6,340,900	4,091,300	3,899,040	28,543,384
3. FUEL COST OF PURCHASED POWER	1,597,832	409,518	728,860	1,256,700	1,060,800	758,400	5,812,150
3a. DEMAND = NON-FUEL COST OF PUR. PWR.	0	0	0	0	0	0	0
3b. ENERGY PAYMENTS TO QUALIFIED FACILITIES	627,610	532,270	628,100	310,000	708,300	690,500	3,496,780
4. ENERGY COST OF ECONOMY PURCHASES	98,690	32,265	26,900	16,800	32,000	62,700	269,355
5. ADJUSTMENTS TO FUEL COST (FT. MEADE / WAUCHULA WHEELING)	(3,521)	(2,573)	(3,500)	(3,500)	(3,500)	(3,500)	(20,094)
5a. ADJUSTMENTS TO FUEL COST	0	0	0	0	0	0	0
6. TOTAL FUEL & NET POWER TRANSACTION (Sum of Lines A1 Through 5a)	28,482,395	24,849,818	26,061,969	28,660,128	25,054,057	26,819,168	159,927,555
*INCLUDES ECONOMY SALES PROFITS (80%)							
B 1. JURISDICTIONAL MWH SALES	1,323,633	1,107,991	1,144,352	1,232,094	1,145,793	1,104,945	7,058,809
2. NON-JURISDICTIONAL MWH SALES	12,130	9,044	1,994	3,070	2,276	1,978	30,492
3. TOTAL SALES (Lines B1 + B2)	1,335,763	1,117,035	1,146,346	1,235,164	1,148,069	1,106,923	7,089,301
4. JURISDIC. % OF TOTAL SALES (Line B1/B3)	0.9909190	0.9919036	0.9982606	0.9975145	0.9980175	0.9982131	-
C 1. JURISDICTIONAL FUEL RECOVERY REVENUE (Net of Revenue Taxes)	30,482,950	25,453,995	26,327,148	28,367,455	26,374,109	25,421,900	162,427,557
1a. ADJUSTMENTS TO FUEL REVENUE	0	0	0	0	0	0	0
2. TRUE-UP PROVISION	1,122,779	1,122,779	1,122,779	1,122,779	1,122,779	1,122,779	6,736,674
2a. INCENTIVE PROVISION	(16,097)	(16,097)	(16,097)	(16,097)	(16,097)	(16,094)	(96,579)
2b. OTHER	0	0	0	0	0	0	0
3. FUEL REVENUE APPLICABLE TO PERIOD (Sum of Lines C1 Through C2b)	31,589,632	26,560,677	27,433,830	29,474,137	27,480,791	26,528,585	169,067,652
4. TOTAL FUEL & NET PWR. TRANS. (Line A6)	28,482,395	24,849,818	26,061,969	28,660,128	25,054,057	26,819,168	159,927,555
5. JURISDIC. TOTAL FUEL & NET PWR. TRANS. (Line A6 x Line B4)	28,223,747	24,648,623	26,016,637	28,588,893	25,004,387	26,771,265	159,253,562
5a. JURISDIC. LOSS MULTIPLIER	1.00013	1.00013	1.00013	1.00013	1.00013	1.00013	-
5b. LINE 5 X LINE 5a	28,227,416	24,651,827	26,020,019	28,592,610	25,007,638	26,774,745	159,274,255
5c. PEABODY COAL CONTRACT BUY-OUT AMORT.	444,301	441,770	439,240	436,709	434,178	431,647	2,627,845
5d. PEABODY JURISDICTIONALIZED (LINE 5c X LINE B4)	440,266	438,193	438,476	435,624	433,317	430,876	2,616,752
5e. FUEL CREDIT DIFFERENTIAL	(64,574)	(272,593)	251,220	(19,701)	(374,957)	(191,130)	(671,735)
5f. REVENUE REFUND TRUE-UP ADJUSTMENT	(329,229)	0	0	0	0	0	(329,229)
5g. TRANSMISSION ADJ. (JAN-NOV. 1997)	0	0	(2,011,564)	0	0	0	(2,011,564)
5h. OIL BELOW THE DISCHARGE VALVE	0	0	(41,159)	0	0	0	(41,159)
5i. ADJ. TO INCLUDE INTEREST ON FUEL CREDIT DIFFERENTIAL FILED IN SEPT. 1997 (\$2,920,793)	0	0	(59,110)	0	0	0	(59,110)
6. JURISDIC. TOTAL FUEL & NET PWR. TRANS. INCL. PEABODY, FUEL CREDIT, & ADJ.	28,273,879	24,817,427	24,597,862	29,008,533	25,065,998	27,014,491	158,778,210
7. OVER/(UNDER) RECOVERY	3,315,753	1,743,250	765,274	485,604	2,414,793	(485,908)	10,289,442
8. INTEREST PROVISION	8,255	14,810	26,137	24,707	26,418	25,759	126,086
9. TOTAL ESTIMATED TRUE-UP FOR THE PERIOD							10,415,828

**COMPARISON OF ESTIMATED ACTUAL VERSUS ORIGINAL PROJECTIONS  
OF THE FUEL AND PURCHASED POWER COST RECOVERY FACTOR  
TAMPA ELECTRIC COMPANY  
FOR THE PERIOD OF OCT., 1987 THRU MAR., 1988**

ENCLOSURE E-181  
REVISED 3/88

	COLLEBS			BORN			MWH		
	ESTIMATED ACTUAL	ESTIMATED ORIGINAL	DIFFERENCE	ESTIMATED ACTUAL	ESTIMATED ORIGINAL	DIFFERENCE	ESTIMATED ACTUAL	ESTIMATED ORIGINAL	DIFFERENCE
1. Fuel Cost of System Net Generation (E3)	178,817,748	183,847,225	(5,029,477)	8,361,858	8,835,879	(474,021)	2,139,008	2,137,712	1,295
2. Spent Nuclear Fuel Disposal Cost	0	0	0	0	0	0	0	0	0
3. Coal Car Investment	0	0	0	0	0	0	0	0	0
4. Adjustments to Fuel Cost (PL, Meehan/Waugh, Wharfing)	(20,094)	(18,205)	(1,889)	8,361,858	8,835,879	(474,021)	(0,000)	(0,000)	0
4a. Adjustments to Fuel Cost	0	0	0	0	0	0	0	0	0
5. TOTAL COST OF GENERATED POWER	178,897,654	183,829,020	(4,931,366)	8,361,858	8,835,879	(474,021)	2,139,008	2,137,712	1,295
6. Fuel Cost of Purchased Power - (Exclusive of Econ) (E7)	5,812,150	3,809,200	2,002,950	132,798	111,811	20,987	4,376,700	3,226,006	1,150,694
7. Energy Cost of S.C. Economy Purchases (Breaker) (E8)	269,355	242,700	26,655	7,146	5,653	1,493	3,790,311	4,286,900	(5,096,589)
8. Energy Cost of Other Econ Purch (Non-Breaker) (E9)	0	0	0	0	0	0	0	0	0
9. Energy Cost of S.C. E Econ Purchases (E9)	0	0	0	0	0	0	0	0	0
10. Capacity Cost of S.C. E Economy Purchases	0	0	0	0	0	0	0	0	0
11. Energy Payments to Qualifying Facilities (E9)	3,496,780	3,832,300	(335,520)	213,890	239,039	(25,149)	0	0	0
12. TOTAL COST OF PURCHASED POWER	9,318,265	7,894,200	1,424,065	353,634	392,608	(38,974)	2,798,003	2,176,925	6,277,078
13. TOTAL AVAILABLE MWH (LINE 5 + LINE 12)	15,929,464	15,960,000	(30,536)	8,715,292	9,158,287	(442,995)	1,684,032	1,547,923	1,366,109
14. Fuel Cost of Economy Sales (E9)	4,070,505	2,474,860	1,595,645	1,073,728	1,243,020	(169,292)	1,486,311	1,525,322	(38,911)
15. Fuel Cost of Wholesale D Sales - Juried (E9)	456,488	511,500	(55,012)	31,303	33,029	(1,726)	1,459,817	1,513,363	(53,546)
16a. Fuel Cost of Schedule D Sales - Repeated (E9)	2,842,206	2,822,800	19,406	199,198	190,833	8,365	1,429,944	1,480,985	(51,041)
16b. Fuel Cost of Schedule D JRP Sales - Repeated (E9)	1,254,714	514,800	739,914	514,800	23,452	491,348	2,082,772	2,198,122	(115,350)
16c. Fuel Cost of Schedule J Sales - Juried (E9)	839,249	109,700	729,549	48,746	8,454	40,292	1,829,622	1,686,232	1,433,390
17. Fuel Cost of Other D Power Sales (E9)	4,146,138	4,994,800	(848,662)	281,121	293,959	(12,838)	1,474,686	1,685,447	(210,761)
17a. Fuel Cost of Other D Sales (E9)	1,205	8,800	(7,595)	80	7,259	(7,179)	2,008,333	2,129,448	(121,115)
17b. Transmission Cost for Wholesale Sales (E9)	(762,583)	(2,526,200)	1,763,617	0	0	0	0	0	0
18. TOTAL FUEL COST AND GAINS ON POWER SALES (LINE 14 thru 17b)	28,543,384	27,880,780	662,604	1,684,450	1,801,520	(117,070)	1,684,450	1,547,923	1,366,527
19. Net transmission interchange	0	0	0	0	0	0	0	0	0
19a. Wharfing Rec'd, Less Wharfing Del'd	0	(10,538)	10,538	0	0	0	0	0	0
19b. Interchange and Wharfing Losses	0	25,477	(25,477)	25,477	26,800	(1,323)	0	0	0
20. TOTAL FUEL AND NET POWER TRANSACTIONS (LINE 18 + 19 + 19a + 19b)	28,543,384	27,880,780	662,604	1,684,450	1,801,520	(117,070)	1,684,450	1,547,923	1,366,527
21. Net Unbilled	158,827,555	168,632,649	(9,805,094)	8,984,234	7,358,987	1,625,247	2,289,810	2,297,121	8,688
22. Company Use	459,708	434,413	25,295	20,079	18,860	1,219	1,000,000	1,000,000	0
23. T & D Losses	1,915,237	8,471,812	(6,556,575)	83,841	369,744	(285,903)	0	0	0
24. System KWH Sales	159,827,555	168,632,649	(9,805,094)	7,089,301	7,190,874	(101,573)	2,290,810	2,304,236	(13,426)
25. Wholesale KWH Sales	(674,023)	(377,781)	(296,242)	(30,482)	(18,064)	(12,418)	2,290,810	2,304,236	(13,426)
26. Jurisdictional KWH Sales	159,253,532	168,254,868	(9,001,336)	7,058,819	7,172,810	(113,991)	2,290,810	2,304,236	(13,426)
27. Jurisdictional KWH Sales Adjusted for Line Losses	159,274,295	168,278,741	(9,004,446)	7,058,808	7,172,810	(113,991)	2,290,808	2,304,236	(13,428)
28. True-up	(664,267)	(6,736,874)	6,072,607	7,058,808	7,172,810	(113,991)	0	0	0
29a. Probable Cost Contract Buy-out Assmt. (Juried)	2,616,752	2,671,992	(55,240)	7,058,808	7,172,810	(113,991)	0	0	0
29b. Fuel Credit Differential	(671,735)	0	671,735	7,058,808	7,172,810	(113,991)	0	0	0
29c. Revenue Refund True-Up Adjustment	(329,229)	0	329,229	7,058,808	7,172,810	(113,991)	0	0	0
29d. Transmission Adj. (Jan. - Mar. 1987)	(2,011,564)	0	2,011,564	7,058,808	7,172,810	(113,991)	0	0	0
29e. Oil Below the Discharge Valve	(41,159)	0	41,159	7,058,808	7,172,810	(113,991)	0	0	0
29f. Adj. to Include Interest on Fuel Credit Del Filed in Sept. 1987 (\$1,820,793)	(5,110)	0	5,110	7,058,808	7,172,810	(113,991)	0	0	0
30. Total Jurisdictional Fuel Cost (E9), (E7), 29a-f, 29c, 29d, 29e, 29f)	156,019,943	164,164,059	(8,144,116)	7,058,808	7,172,810	(113,991)	2,290,808	2,304,236	(13,428)
31. Revenue Tax Factor	156,215,153	164,268,314	(8,053,161)	7,058,808	7,172,810	(113,991)	2,290,808	2,304,236	(13,428)
32. Fuel Factor (E9), (E7) Adjusted for Taxes	(381,800)	98,960	(480,760)	7,058,808	7,172,810	(113,991)	2,290,808	2,304,236	(13,428)
33. GMP = (E9E3, E47) - Net Adjusted for Taxes	157,811,303	164,367,274	(6,555,971)	7,058,808	7,172,810	(113,991)	2,290,808	2,304,236	(13,428)
34. Fuel Factor Adjusted for Tax is Including GMP	0	0	0	0	0	0	0	0	0
35. Fuel Factor Rounded to Nearest .001 cents per KWH	2,296	2,304	(8)	2,296	2,304	(8)	2,296	2,304	(8)

\* Included For Informational Purposes Only  
- Calculation Based on Jurisdictional KWH Sales  
Note: Amounts included in Estimated Actual column represent two months actual and four months revised estimates. Amounts included in the Estimated Original column represent amounts projected in previous fuel adjustment period.



CALCULATION OF GENERATING PERFORMANCE  
INCENTIVE FACTOR AND TRUE-UP FACTOR  
TAMPA ELECTRIC COMPANY  
FOR THE PERIOD: APRIL 1998 THRU SEPTEMBER 1998

1. TOTAL AMOUNT OF ADJUSTMENTS:		
A. GENERATING PERFORMANCE INCENTIVE REWARD (PENALTY) (APRIL 1998 THRU SEPTEMBER 1998)		(\$363,850)
B. TRUE-UP OVER / (UNDER) RECOVERED (OCTOBER 1997 THRU MARCH 1998)		\$4,373,121
2. TOTAL SALES		
(APRIL 1998 THRU SEPTEMBER 1998)		8,432,514 MWH
3. ADJUSTMENT FACTORS:		
A. GENERATING PERFORMANCE INCENTIVE FACTOR	<input type="text" value="0.0043"/>	Cents/KWH
B. TRUE-UP FACTOR	<input type="text" value="0.0519"/>	Cents/KWH

FUEL ADJUSTMENT FACTOR FOR  
 OPTIONAL TIME-OF-DAY RATES  
 TAMPA ELECTRIC COMPANY  
 PROJECTION FOR THE PERIOD  
 APRIL 1998 THRU SEPTEMBER 1998

1. COST RATIO:

$$\frac{3.154 \text{ ON-PEAK}}{1.782 \text{ OFF-PEAK}} = 1.7699$$

2. SALES/GENERATION:

32.47 % ON-PEAK      67.53 % OFF-PEAK

3. FORMULA:

X = ON-PEAK	Y = OFF-PEAK	
0.3247 * 1.7699	Y + 0.6753	Y = 2.3373
	1.2500	Y = 2.3373
		Y = 1.8699
	X = 1.7699	Y
	X = 1.7699 * 1.8699	
	X = 3.3095	

INCLUDES TAX @ 1.00083

	ON-PEAK	OFF-PEAK
	-----	-----
4. FUEL COST (cents/KVrH)	3.3095	1.8699
5. FUEL FACTOR (cents/KWH NEAREST .000)	3.310	1.870

**FUEL RECOVERY FACTORS - BY RATE GROUP  
 ( ADJUSTED FOR LINE/TRANSFORMATION LOSSES)  
 TAMPA ELECTRIC COMPANY  
 FOR THE PERIOD: APRIL 1998 THRU SEPTEMBER 1998**

**SCHEDULE E-1E  
 REVISED 2/6/98**

(1) GROUP	(2) RATE SCHEDULE		(3)	(4)	(5)
			AVERAGE FACTOR	FUEL RECOVERY LOSS MULTIPLIER	FUEL RECOVERY FACTOR
A	RS,GS,TS		2.337	1.0072	2.354
A1*	SL-2, OL-1&3		2.337	N/A	2.101
B	GSD,GSLD,SBF		2.337	1.0013	2.340
C	IS-1&3,SBI-1&3		2.337	0.9687	2.264
D	N/A		N/A	N/A	N/A
A	RST,GST	ON-PEAK	3.310	1.0072	3.334
		OFF-PEAK	1.870	1.0072	1.883
A1	SL-2, OL-1&3	ON-PEAK	N/A	N/A	N/A
		OFF-PEAK	N/A	N/A	N/A
B	GSDT,EV-X,GSLDT, SBFT	ON-PEAK	3.310	1.0013	3.314
		OFF-PEAK	1.870	1.0013	1.872
C	IST-1&3,SBIT-1&3	ON-PEAK	3.310	0.9687	3.206
		OFF-PEAK	1.870	0.9687	1.811
D	N/A	ON-PEAK	N/A	N/A	N/A
		OFF-PEAK	N/A	N/A	N/A

\* GROUP A1 IS BASED ON GROUP A, 15% OF ON-PEAK AND 85% OF OFF-PEAK.

FUEL AND PURCHASED POWER COST RECOVERY CLAUSE CALCULATION  
TAMPA ELECTRIC COMPANY  
FOR THE PERIOD OF: APRIL 1998 THRU SEPTEMBER 1998

LINE NUMBER	(a)	(b)	(c)	(d) ESTIMATED			(e)	TOTAL PERIOD	LINE NUMBER
				Apr-98	May-98	Jun-98			
1	FUEL COST OF SYSTEM NET GENERATION	29,909,025	33,302,458	35,087,741	37,149,056	37,868,856	34,879,220	208,814,406	1
1a	NUCLEAR FUEL DISPOSAL	0	0	0	0	0	0	0	1a
2	FUEL COST OF POWER SOLD *	4,040,220	3,202,420	3,964,800	3,679,790	3,671,180	3,211,940	21,770,340	2
3	FUEL COST OF PURCHASED POWER	5,118,000	1,949,700	2,059,300	2,279,300	2,197,000	1,435,400	10,422,500	3
3a	DEMAND & NON FUEL COST OF PUR POWER	0	0	0	0	0	0	0	3a
3b	QUALIFYING FACILITIES	899,600	919,600	832,100	977,100	990,200	848,600	5,457,200	3b
4	ENERGY COST OF ECONOMY PURCHASES	80,700	206,300	203,400	359,500	279,200	312,400	1,441,500	4
4a	ADJUSTMENTS TO FUEL COSTS (FT. MEADE / WALUCHALA WHEELING)	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)	(21,000)	4a
4b	ADJUSTMENTS TO FUEL COSTS	0	0	0	0	0	0	0	4b
5	TOTAL FUEL & NET POWER TRANSACTION (SUM OF LINES 1 THRU 4b)	27,357,415	33,172,138	35,054,241	37,031,679	37,868,616	34,090,180	204,344,266	5
6	JURISDICTIONAL KWH SOLD (BPPW)	1,156,538	1,290,315	1,454,068	1,515,374	1,495,048	1,521,153	8,432,514	6
6a	JURISDICTIONAL % OF TOTAL SALES	0.997081	0.990537	0.9900510	0.9946981	0.9904858	0.9990111	-	6a
6b	JURISDIC. TOT. FUEL & NET PWR. TRANS. (LINE 5 x LINE 6a)	27,277,671	32,858,253	34,633,378	36,464,651	37,121,868	33,712,804	202,070,643	6b
7	JURISDICTIONAL LOSS MULTIFLIER	1.00013	1.00013	1.00013	1.00013	1.00013	1.00013	-	7
7a	LINE 6b x LINE 7	27,281,217	32,862,529	34,639,881	36,469,381	37,126,712	33,717,187	202,098,913	7a
7b	PEABODY COAL CONTRACT BUY-OUT AMT.	429,116	426,585	424,054	421,523	418,992	416,461	2,536,731	7b
7c	PEABODY JURISDICTIONALIZED (LINE 7b x LINE 6a)	427,865	422,548	418,987	415,069	412,911	412,214	2,509,565	7c
7d	FUEL CREDIT DIFFERENTIAL	(517,734)	(514,746)	(470,502)	(527,637)	(533,544)	(373,992)	(2,838,153)	7d
8	JURISDIC. TOT. FUEL & NET PWR. TRANS. INCL. PEABODY AND FUEL CREDIT (LINE 7a + 7c + 7d)	27,191,348	32,770,329	34,568,398	36,356,823	37,006,079	33,755,409	201,668,355	8
9	COST PER KWH SOLD (cents/KWH)	2,3511	2,530*	2,3787	2,3992	2,4752	2,2191	2,3916	9
10	TRUE UP ** (cents/KWH)	(0.0519)	(0.0519)	(0.0519)	(0.0519)	(0.0519)	(0.0519)	(0.0519)	10
11	TOTAL (LINES 9+10)(cents/KWH)	2,2992	2,4878	2,3268	2,3473	2,4233	2,1672	2,3397	11
12	REVENUE TAX FACTOR	1.00083	1.00083	1.00083	1.00083	1.00083	1.00083	1.00083	12
13	RECOVERY FAC. ADJ. FOR TAXES (c/KWH) (ECL. OPFF)	2,3011	2,4896	2,3287	2,3492	2,4253	2,1690	2,3416	13
14	OPFF - (cents/KWH) (ALREADY ADJUSTED FOR TAXES)	(0.0043)	(0.0043)	(0.0043)	(0.0043)	(0.0043)	(0.0043)	(0.0043)	14
15	TOTAL RECOVERY FACTOR (LINES 13+14)	2,2968	2,4856	2,3244	2,3449	2,4210	2,1647	2,3373	15
16	RECOVERY FACTOR ROUNDED TO NEAREST .001 cents/KWH	2,297	2,486	2,324	2,345	2,421	2,165	2,337	16

\* INCLUDES ECONOMY SALES PROFITS (80%)  
-- BASED ON JURISDICTIONAL SALES ONLY

RESIDENTIAL BILL COMPARISON  
FOR MONTHLY USAGE OF 1000' kWh  
TAMPA ELECTRIC COMPANY  
ESTIMATED FOR THE PERIOD\* OF: APRIL 1998 THRU SEPTEMBER 1998

	Apr-98	May-98	Jun-98	Jul-98	Aug-98	Sep-98	TOTAL
BASE RATE REVENUES	(\$)	51.92	51.92	51.92	51.92	51.92	51.92
FUEL RECOVERY REVENUES	(\$)	23.54	23.54	23.54	23.54	23.54	23.54
CONSERVATION REVENUES	(\$)	1.65	1.65	1.65	1.65	1.65	1.65
CAPACITY REVENUES	(\$)	1.88	1.88	1.88	1.88	1.88	1.88
ENVIRONMENTAL REVENUES	(\$)	0.33	0.33	0.33	0.33	0.33	0.33
TEMPORARY BASE RATE REDUCTION	(\$)	(1.30)	(1.30)	(1.30)	(1.30)	(1.30)	(1.30)
FL. GROSS REC. TAX REVENUES	(\$)	2.00	2.00	2.00	2.00	2.00	2.00
<b>TOTAL REVENUES</b>	<b>(\$)</b>	<b>80.02</b>	<b>80.02</b>	<b>80.02</b>	<b>80.02</b>	<b>80.02</b>	<b>80.02</b>

\* MONTHLY AND CUMULATIVE SIX MONTH ESTIMATED DATA

FUEL AND PURCHASED POWER COST RECOVERY CLAUSE CALCULATION  
TAMPA ELECTRIC COMPANY  
FOR THE PERIOD: OCTOBER 1997 THRU MARCH 1998

SCHEDULE E3  
REVISED 2/9/98

LINE NUMBER	(a) ACTUAL					(b) ESTIMATED					TOTAL PERIOD	LINE NUMBER
	Oct-97	Nov-97	Dec-97	Jan-98	Feb-98	Mar-98						
1	30,720,985	29,985,481	26,227,369	33,421,026	27,347,757	29,210,129	178,912,748	1				
1a	0	0	0	0	0	0	0	1a				
2	4,558,181	4,107,143	3,540,820	6,340,800	4,081,300	3,880,040	28,543,384	2				
3	1,587,832	408,518	728,800	1,256,700	1,060,800	758,400	5,812,150	3				
3a	0	0	0	0	0	0	0	3a				
3b	627,810	532,270	628,100	310,000	708,300	690,500	3,498,780	3b				
4	88,890	32,295	28,900	18,800	32,000	82,700	269,355	4				
4a	(3,571)	(2,572)	(3,500)	(3,500)	(3,500)	(3,500)	(20,084)	4a				
4b	0	0	0	0	0	0	0	4b				
5	28,482,395	24,848,818	26,081,969	28,690,126	25,054,057	26,819,168	138,827,565	5				
6	1,323,633	1,107,991	1,144,352	1,232,084	1,145,793	1,104,845	7,058,809	6				
6a	0	0	0	0	0	0	0	6a				
6b	0	0	0	0	0	0	0	6b				
6c	0	0	0	0	0	0	0	6c				
6d	0	0	0	0	0	0	0	6d				
6e	0	0	0	0	0	0	0	6e				
6f	0	0	0	0	0	0	0	6f				
6g	0	0	0	0	0	0	0	6g				
6h	0	0	0	0	0	0	0	6h				
6i	0	0	0	0	0	0	0	6i				
6j	0	0	0	0	0	0	0	6j				
6k	0	0	0	0	0	0	0	6k				
6l	0	0	0	0	0	0	0	6l				
6m	0	0	0	0	0	0	0	6m				
6n	0	0	0	0	0	0	0	6n				
6o	0	0	0	0	0	0	0	6o				
6p	0	0	0	0	0	0	0	6p				
6q	0	0	0	0	0	0	0	6q				
6r	0	0	0	0	0	0	0	6r				
6s	0	0	0	0	0	0	0	6s				
6t	0	0	0	0	0	0	0	6t				
6u	0	0	0	0	0	0	0	6u				
6v	0	0	0	0	0	0	0	6v				
6w	0	0	0	0	0	0	0	6w				
6x	0	0	0	0	0	0	0	6x				
6y	0	0	0	0	0	0	0	6y				
6z	0	0	0	0	0	0	0	6z				
7	1,000,13	1,000,13	1,000,13	1,000,13	1,000,13	1,000,13	7,000,91	7				
7a	28,227,418	24,851,827	26,020,019	28,182,810	25,007,838	26,774,745	159,274,255	7a				
7b	644,301	441,770	439,240	438,709	434,178	431,847	2,877,845	7b				
7c	440,268	438,193	438,478	435,824	433,317	430,879	2,818,752	7c				
7d	(84,574)	(272,593)	251,220	(19,701)	(374,857)	(191,130)	(871,726)	7d				
7e	(329,229)	0	0	0	0	0	(329,229)	7e				
7f	0	0	(2,011,564)	0	0	0	(2,011,564)	7f				
7g	0	0	(41,158)	0	0	0	(41,158)	7g				
7h	0	0	(59,110)	0	0	0	(59,110)	7h				
7i	28,273,879	24,817,427	24,587,862	29,008,533	25,095,998	27,014,891	158,778,210	7i				
7j	2,181	2,239	2,165	2,354	2,177	2,449	2,248	7j				
7k	(2,008)	(2,008)	(2,008)	(2,008)	(2,008)	(2,008)	(14,048)	7k				
7l	2,183	2,231	2,187	2,348	2,179	2,431	2,298	7l				
7m	1,000,63	1,000,63	1,000,63	1,000,63	1,000,63	1,000,63	7,005,39	7m				
7n	2,181	2,230	2,145	2,345	2,179	2,431	2,245	7n				
7o	0,0014	0,0014	0,0014	0,0014	0,0014	0,0014	0,0014	7o				
7p	2,183	2,234	2,1429	2,3479	2,1811	2,4395	2,2429	7p				
7q	2,130	2,233	2,143	2,348	2,181	2,439	2,243	7q				

\* INCLUDES ECONOMY SALES PROFITS (SPN)  
\*\* BASED ON JURISDICTIONAL SALES ONLY