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November 20, 1997

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. 970001-EI

Dear Ms. Bayo:

Enclosed for filing in the above docket, on behalf of Tampa Electric Company, are ten copies of each of the following:

- 1. Prepared Direct Testimony of Karen A. Zwolak and Exhibit (KOZ-1) regarding Tampa Electric's Fuel Cost Recovery and Capacity Cost Recovery for the period April 1997 through September 1997. (1938-97)
- Prepared Direct Testimony of George A. Keselowsky with Exhibit (GAK-1 regarding Tampa Electric Company's performance under the Generating Performance Incentive Factor for the period April 1997 - September 1997. 11935-97

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AF :		Thank you	for your	assistance	in conne	ction with	n this r	matter.
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Cc: All Parties of Record (w/encls.)

Ms. Blanca S. Bayo November 20, 1997 Page Two

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy of the foregoing testimony and exhibits, filed on behalf of Tampa Electric Company, has been furnished by U. S. Mail or hand delivery (*) on this 200 day of November, 1997 to the following:

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A PRORNEY

UNIVINAL

TAMPA ELECTRIC COMPANY DOCKET NO. 970001-EI SUBMITTED FOR FILING 11/20/97 (TRUE UP)

1	13.5	BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2	L NA	PREPARED DIRECT TESTIMONY
3		OF
4		GEORGE A. KESELOWSKY
5	1,13	
6	۵.	Will you please state your name, business address, and
7		employer?
8		
9	A.	My name is George A. Keselowsky and my business address is
10		Post Office Box 111, Tampa, Florida 33601. I am employed
11		by Tampa Electric Company.
12		
13	Ω.	Please furnish us with a brief outline of your educational
14		background and business experience.
15		
16	A.	I graduated in 1972 from the University of South Florida
17		with a Bachelor of Science Degree in Mechanical
18		Engineering. I have been employed by Tampa Electric
19		Company in various engineering positions since that time.
20		My current position is that of Senior Consulting Engineer
21		-Production Engineering.
22		
23		
24		
25		

I 1935 NOV 20 5

FPSC-RECORDS/REPORTING

Q. What are your current responsibilities?

A. I am responsible for testing and reporting performance, and the compilation and reporting

Q. What is the purpose of your testimony?

generation statistics.

9 A. My testimony presents the actual performance resul
10 unit equivalent availability and station heat rate
11 determine the Generating Performance Incentive
12 (GPIF) for the period April 1997 through Septembe
13 I will also compare these results to the
14 established prior to the beginning of the period.

Q. Have you prepared an exhibit with the results for t month period?

A. Yes. Under my direction and supervision an exhibeen prepared entitled, "Tampa Electric Company, 1997 - September 1997, Generating Performance In Factor Results" consisting of 28 pages that was fil this testimony (Have identified as Exhibit GAK-1).

2. Are the equivalent availability results shown on page 6, column 2, directly applicable to the GPIF table?

A. Not exactly. Adjustments to equivalent availability may be required as noted in section 4.3.3 of the GPIF Manual. The actual equivalent availability including the required adjustment is shown on page 6 of my exhibit. The necessary adjustments as prescribed in the GPIF Manual are further defined by a letter dated October 23, 1981, from Mr. J.H. Hoffsis of the Commission's Staff. The adjustments for each unit are as follows:

Gannon Unit No. 5

On this unit, no planned outage hours were originally scheduled to fall within the Summer 1997 period, and none in fact occurred. Consequently, the actual equivalent availability of 74.7% requires no adjustment, as shown on page 7 of my exhibit.

Gannon Unit No. 6

On this unit, 168 planned outage hours were originally scheduled to fall within the Summer 1997 period. Due to a revision of the outage schedule, this work was accomplished prior to the beginning of the period, and no planned outage hours fell within the period. Consequently, the actual

equivalent availability of 82.0% is adjusted to 78.9%, as shown on page 8 of my exhibit.

Big Bend Unit No. 1

On this unit 983 planned outage hours were originally scheduled to fall within the Summer 1997 period. Due to a revision of the outage schedule 1145.4 planned outage hours fell within the period. Consequently, the actual equivalent availability of 62.9% is adjusted to 66.0% as shown on page 9 of my exhibit.

Big Bend Unit No. 2

On this unit no planned outage hours were originally scheduled to fall within the Summer 1997 period, and none in fact occurred. Consequently, the actual equivalent availability of 87.4% requires no adjustment as shown on page 10 of my exhibit.

Big Bend Unit No. 3

On this unit no planned outage hours were originally scheduled to fall within the Summer 1997 period. Due to a revision of the outage schedule, outage activities were moved forward to fall within the period, and required 671.0 hours. Consequently, the actual equivalent availability of 71.3% is adjusted to 84.2% as shown on page 11 of my

1 exhibit.

Big Bend Unit No. 4

This unit was not scheduled to have a planned outage during the Summer 1997 period, and none in fact occurred. Consequently, the actual equivalent availability of 82.8% requires no adjustment as shown on page 12 of my exhibit.

Q. How did you arrive at the applicable equivalent availability points for each unit?

A. The final adjusted equivalent availabilities for each unit are shown on page 6, column 4, of my exhibit. This number is entered into the respective Generating Performance Incentive Point (GPIP) Table for each particular unit on pages 21 through 26. Page 4 of my exhibit summarizes the equivalent availability points to be awarded or penalized.

Q. Would you please explain the heat rate results relative to the GPIF?

A. The actual heat rate and adjusted actual heat rate for Gannon and Big Bend Station are shown on page 6 of my exhibit. The adjustment was developed based on the guidelines of section 4.3.6 of the GPIF Manual. This

procedure is further defined by a letter dated October 23, 1981, from Mr. J.H. Hoffsis of the FPSC Staff. The final adjusted actual heat rates are also shown on page 5 of my exhibit. This heat rate number is entered into the respective GPIP table for the particular unit, shown on pages 21 through 26. Page 4 of my exhibit summarizes the weighted heat rate and equivalent availability points to be awarded.

Q. Were any additional adjustments to heat rate required?

A. In order to assure compatability of data, Big Bend Unit 3 heat rates have been calculated in the standard fashion, without scrubber power. This methodology has been reviewed and approved by the PSC staff, to be employed until there is sufficient operational history with the scrubber to meet target preparation guidelines.

Q. Does this assure that the Big Bend 3 heat rate for the period is appropriate for comparison to its target and meets GPIF criteria?

A. Yes.

What is the overall GPIP for Tampa Electric Company during this six month period? This is shown on page 28 of my exhibit. Essentially, the weighting factors shown on page 4, column 3, plus the equivalent availability points and the heat rate points shown on page 4, column 4, are substituted within the equation. This resultant value, -1.613, is then entered into the GPIF table on page 2. Using linear interpolation, a penalty amount of \$363,850 is calculated.

Q. Does this conclude your testimony?

A. Yes, it does.

EXHIBIT NO. DOCKET NO. 970001 - EI
TAMPA ELECTRIC COMPANY
(GAK -1)
PAGE 1 OF 28

TAMPA ELECTRIC COMPANY APRIL 1997 - SEPTEMBER 1997 GENERATING PERFORMANCE INCENTIVE FACTOR RESULTS TABLE OF CONTENTS

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TAMPA ELECTRIC COMPANY GENERATING PERFORMANCE INCENTIVE POINTS TABLE REWARD / PENALTY TABLE - ACTUAL APRIL 1997 - SEPTEMBER 1997

GENERATING PERFORMANCE INCENTIVE POINTS (GPIP)	FUEL SAVINGS / (LOSS) (\$000)	GENERATING PERFORMANCE INCENTIVE FACTOR (\$000)
+10	5,650.9	2,255.7
+9	5,085.8	2,030.2
+8	4,520.7	1,804.6
+7	3,955.6	1,579.0
+6	3,390.5	1,353.4
+5	2,825.5	1,127.9
+4	2,260.4	902.3
+3	1,695.3	676.7
+2	1,130.2	451.1
+1	565.1	225.6
0	0	0.0
-1	GPIP (859.5) REWARI	
-2	Points DOLLAR (1,719.0) (5363,850	
-3	(2,578.5)	(676.7)
4	(3,438.0)	(902.3)
-5	(4,297.5)	(1,127.9)
-6	(5,157.0)	(1,353.4)
-7	(6,016.5)	(1,579.0)
-4	(6,876.0)	(1,804.6)
.9 ·	(7,735.5)	(2,030.2)
-10	(8,595.0)	(2,255.7)

TAMPA ELECTRIC COMPANY GENERATING PERFORMANCE INCENTIVE FACTOR CALCULATION OF MAXIMUM ALLOWED INCENTIVE DOLLARS ACTUAL

APRIL 1997 - SEPTEMBER 1997

Line 1	Beginning of period balance end of month common equ		\$1,118,123,557	
Line 2	Month of April	1997	\$1,098,370,149	
Line 3	Month of May	1997	\$1,111,295,738	
Line 4	Month of June	1997	\$1,127,791,151	
Line 5	Month of July	1997	\$1,114,862,686	
Line 6	Month of August	1997	\$1,133,101,662	
Line 7	Month of September	1997	\$1,147,458,353	
Line 8	(summation of line 1 throu	gh line 7 divided by 7)	\$1,121,571,899	
Line 9	25 Basis points		0.0025	
Line 10	Revenue expansion factor		61.3738%	
Line 11	Maximum allowed incentiv (Line 8 times line 9 divided times 0.5)		\$2,284,305	
Line 12	Jurisdictional Sales		8020363	MWH
Line 13	Total Sales		8121944	MWH
Line 14	Jurisdictional Seperation F (Line 12 divided by line 13)		98.75%	
Line 15	Maximum Allowed Jurisdic	ctional Incentive		
	(Line 11 times line 14)		\$2,255,735	

TAMPA ELECTRIC COMPANY CALCULATION OF SYSTEM GPIF POINTS APRIL 1997 - SEPTEMBER 1997 ACTUAL

PLANT/UNIT	ADJ A	MO CTUAL MANCE	WEIGHTING FACTOR %	UNIT POINTS	WEIGHTED UNIT POINTS
GANNON 5	74.7%	EAF	4.39%	-10.000	-0.439
GANNON 6	78.9%	EAF	5.23%	-10.000	-0.523
BIG BEND 1	66.0%	EAF	9.61%	-2.843	-0.273
BIG BEND 2	87.4%	EAF	10.53%	8.414	0.886
BIG BEND 3	84.1%	EAF	15.45%	-0.221	-0.034
BIG BEND 4	82.8%	EAF	7.30%	-10.000	-0.730
GANNON 5	10564	ANOHR	7.72%	-1.242	-0.096
GANNON 6	10465	ANOHR	8.61%	0.000	0.000
BIG BEND 1	10164	ANOHR	8.18%	-5.735	-0.402
BIG BEND 2	9991	ANOHR	9.36%	0.691	0.065
BIG BEND 3	9988	ANOHR	7.07%	0.000	0.000
BIG BEND 4	9970	ANOHR	6.55%	0.000	0.000
					1 (10

-1.613

GPIF REWARD

(\$363,850)

GPIF TARGET AND RANGE SUMMARY

APRIL 1997 - SEPTEMBER 1997

EQUIVALENT AVAILABILITY

PLANT/UNIT	WEIGHTING FACTOR (%)	EAF TARGET (%)	EAF MAX. (%)	RANGE MIN. (%)	MAX. FUEL SAVINGS (\$000)	MAX. FUEL, LOSS (\$000)	EAF ADJUSTED ACTUAL %	FUEL SAVINGS/ LOSS (\$000)
GANNON 5	4.39%	90.0	92.0	86.0	248.1	(578.6)	74.7%	(248.1)
GANNON 6	5.23%	86.3	88.7	82.4	295.5	(550.0)	78.9%	(295.5)
BIG BEND 1	9.61%	67.3	70.9	61.6	542.9	(1,362.5)	66.0%	(154.3)
BIG BEND 2	10.53%	84.9	87.9	78.9	595.0	(1,181.4)	87.4%	500.6
BIG BEND 3	15.45%	84.3	87.4	77.9	873.2	(1,462.5)	84.1%	(32.3)
BIG BEND 4	7.30%	91.5	93.2	88.1	412.6	(776.4)	82.8%	(412.6)
GPIF SYSTEM	52.51%				2,967.3	(5,911.4)		

AVERAGE NET OPERATING HEAT RATE FOR GPIF COAL GENERATING UNITS

PLANT/UNIT	WEIGHTING FACTOR (%)	ANOHR Btu/osh	TARGET NOF	ANOHR T RAN MIN,		MAX. FUEL SAVINGS (3000)	MAX. FUEL LOSS (3000)	ACTUAL ADJUSTED ANOHR	ACTUAL FUEL SAVINGS/ LOSS (\$000)	
GANNON 5	7.72%	10448	79.6	10043	10853	436.0	(436.0)	10564	(54.2)	
GANNON 6	8.61%	10471	79.7	10177	10765	486.6	(486.6)	10465	0.0	
BIG BEND 1	8.18%	9968	90.4	9682	10254	462.4	(462.4)	10164	(265.2)	
BIG BEND 2	9.36%	10079	88.7	9816	10342	529.0	(529.0)	9991	36.6	
BIG BEND 3	7.07%	9969	85.7	9759	10179	399.4	(399.4)	9988	0.0	
BIG BEND 4	6.55%	9992	92.5	9825	10159	370.2	(370.2)	9970	0.0	
GPIF SYSTEM	47.49%					2,683.6	(2,683.6)			

TAMPA ELECTRIC COMPANY ACTUAL UNIT PERFORMANCE DATA APRIL 1997 - SEPTEMBER 1997

PLANT / UNIT	ACTUAL EAF %	ADJUSTMENTS (1) EAF %	EAF ADJUSTED ACTUAL %
GANNON 5	74.7	0.0	74.7
GANNON 6	82.0	-3.1	78.9
BIG BEND 1	62.9	3.1	66.0
BIG BEND 2	87.4	0.0	87.4
BIG BEND 3	71.3	12.9	84.2
BIG BEND 4	82.8	0.0	82.8
PLANT / UNIT	ACTUAL ANOHR Btu/kwh	ADJUSTMENTS (1) TO ANOHR Btu/kwh	ANOHR ADJUSTED ACTUAL Btu/kwh
GANNON 5	10581	-17	10564
GANNON 6	10467	-2	10465
BIG BEND 1	10447	-283	10164
BIG BEND 2	10320	-329	9991
BIG BEND 3	10077	-89	9988
BIG BEND 4	10199	-229	9970

⁽¹⁾ Documentation of adjustments to Actual EAF on pages 7 - 12

⁽¹⁾ Documentation of adjustments to Actual ANOHR on pages 13 - 18

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE GANNON UNIT NO. 5 APRIL 1997 - SEPTEMBER 1997

WEIGHTING FACTOR -

4.39%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
P.H.	4391.0	4391.0	4391.0
E.A.F.	90.0	74.7	74.7
P.O.H.	0.0	0.0	0.0
F.O.H. + E.F.O.H	354.0	1029.7	1029.7
M.O.H. + E.M.O.H	87.0	82.6	82.6
P.O.F.	0.0	0.0	0.0
E.F.O.F.	8.1	23.5	23.5
E.M.O.F.	2.0	1.9	1.9

-10.000 E. A. POINTS

ADJUSTMENTS TO E.A.F.

100.0 - 25.3 - 74.7

PH - PERIOD HOURS

EAF - EQUIVALENT AVAILABILITY FACTOR

POH - PLANNED OUTAGE HOURS

FOH - FORCED OUTAGE HOURS

MOH - MAINTENANCE OUTAGE HOURS

POF - PLANNED OUTAGE FACTOR

EFOF - EQUIVALENT FORCED OUTAGE FACTOR

EMOF = EQUIVALENT MAINTENANCE OUTAGE FACTOR

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE GANNON UNIT NO. 6 APRIL 1997 - SEPTEMBER 1997

WEIGHTING FACTOR -

5.23%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
P.H.	4391.0	4391.0	4391.0
E.A.F.	86.3	82.0	78.9
Р.О.Н.	168.0	0.0	168.0
F.O.H. + E.F.O.H	228.0	591.3	568.7
M.O.H. + E.M.O.H	207.0	199.1	191.5
P.O.F.	3.8	0.0	3.8
E.F.O.F.	5.2	13.5	13.0
E.M.O.F.	4.7	4.5	4.4

-10.000 E. A. POINTS

ADJUSTMENTS TO E.A.F.

100.0 - 21.1 - 78.9

PH = PERIOD HOURS

EAF = EQUIVALENT AVAILABILITY FACTOR

POH = PLANNED OUTAGE HOURS

FOH = FORCED OUTAGE HOURS

MOH = MAINTENANCE OUTAGE HOURS

EUOH = EQUIVALENT UNPLANNED OUTAGE HOURS

POF = PLANNED OUTAGE FACTOR

EFOF = EQUIVALENT FORCED OUTAGE FACTOR

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE BIG BEND UNIT NO. 1 APRIL 1997 - SEPTEMBER 1997

WEIGHTING FACTOR =

9.61%

6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
4391.0	4391.0	4391.0
67.8	62.9	66.0
983.0	1145.4	983.0
293.0	256.5	269.3
137.0	227.6	239.0
22.4	26.1	22.4
6.7	5.8	6.1
3.1	5.2	5.4
	4391.0 67.8 983.0 293.0 137.0 22.4 6.7	6 MO. ACTUAL PERFORMANCE 4391.0 4391.0 67.8 62.9 983.0 1145.4 293.0 256.5 137.0 227.6 22.4 26.1 6.7 5.8

-2.843 E. A. POINTS

ADJUSTMENTS TO E.A.F.

100.0 - 34.0 - 66.0

PH - PERIOD HOURS

EAF - EQUIVALENT AVAILABILITY FACTOR

POH - PLANNED OUTAGE HOURS

FOH - FORCED OUTAGE HOURS

MOH - MAINTENANCE OUTAGE HOURS

EUOH - EQUIVALENT UNPLANNED OUTAGE HOURS

POF - PLANNED OUTAGE FACTOR

EFOF - EQUIVALENT FORCED OUTAGE FACTOR

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE BIG BEND UNIT NO. 2 APRIL 1997 - SEPTEMBER 1997

WEIGHTING FACTOR =

10.53%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
P.H.	4391.0	4391.0	4391.0
E.A.F.	84.9	87.4	87.4
P.O.H.	0.0	0.0	0.0
F.O.H. + E.F.O.H	461.0	347.4	347.4
M.O.H. + E.M.O.H	201.0	204.8	204.8
P.O.F.	0.0	0.0	0.0
E.F.O.F.	10.5	7.9	7.9
E.M.O.F.	4.6	4.7	4.7

8.414 E. A. POINTS

ADJUSTMENTS TO E.A.F.

87.4

PH - PERIOD HOURS

100.0 -

EAF - EQUIVALENT AVAILABILITY FACTOR

POH - PLANNED OUTAGE HOURS

FOH - FORCED OUTAGE HOURS

MOH - MAINTENANCE OUTAGE HOURS

EUOH - EQUIVALENT UNPLANNED OUTAGE HOURS

12.6 -

POF - PLANNED OUTAGE FACTOR

EFOF - EQUIVALENT FORCED OUTAGE FACTOR

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE BIG BEND UNIT NO. 3 APRIL 1997 - SEPTEMBER 1997

WEIGHTING FACTOR =

15.45%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
P.H.	4391.0	4391.0	4391.0
E.A.F.	84.3	71.5	84.2
P.O.H.	0.0	671.0	0.0
F.O.H. + E.F.O.H	495.0	435.4	513.9
M.O.H. + E.M.O.H	195.0	153.9	181.7
P.O.F.	0.0	15.3	0.0
E.F.O.F.	11.3	9.9	11.7
E.M.O.F.	4.4	3.5	4.1

-0.221 E. A. POINTS

ADJUSTMENTS TO E.A.F.

100.0 - 15.8 - 84.2

PH - PERIOD HOURS EAF - EQUIVALENT A

EAF - EQUIVALENT AVAILABILITY FACTOR

POH - PLANNED OUTAGE HOURS

FOH - FORCED OUTAGE HOURS

MOH - MAINTENANCE OUTAGE HOURS

EUOH - EQUIVALENT UNPLANNED OUT AGE HOURS

POF - PLANNED OUTAGE FACTOR

EFOF - EQUIVALENT FORCED OUTAGE FACTOR

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE BIG BEND UNIT NO. 4 APRIL 1997 - SEPTEMBER 1997

WEIGHTING FACTOR =

7.30%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
P.H.	4391.0	4391.0	4391.0
E.A.F.	91.5	82.8	82.8
P.O.H.	0.0	0.0	0.0
F.O.H. + E.F.O.H	189.0	273.6	273.6
M.O.H. + E.M.O.H	183.0	481.6	481.6
P.O.F.	0.0	0.0	0.0
E.F.O.F.	4.3	6.2	6.2
E.M.O.F.	4.2	11.0	11.0

-10.000 E. A. POINTS

ADJUSTMENTS TO E.A.F.

100.0 - 17.2 - 82.8

PH - PERIOD HOURS

EAF - EQUIVALENT AVAILABILITY FACTOR

POH - PLANNED OUTAGE HOURS

FOH - FORCED OUTAGE HOURS

MOH - MAINTENANCE OUTAGE HOURS

EUOH - EQUIVALENT UNPLANNED OUTAGE HOURS

POF - PLANNED OUTAGE FACTOR

EFOF - EQUIVALENT FORCED OUTAGE FACTOR

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE GANNON UNIT NO. 5 HEAT RATE DATA APRIL 1997 - SEPTEMBER 1997

WEIGHTING FACTOR =

7.72%

	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwb)	10448	10581
STA. NET GEN. (GWH)	747.3	639.7
OPER. Btu (10^9 btu)	7807.691	6768.615
NET OUTPUT FACTOR	79.6	77.9

-1.242 HEAT RATE POINTS

ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURRENT EQUATION NOF(-9.9884) + 11243.0 = ANOHR

77.9 (-9.9884) + 11243.0 = 10465

10581 - 10465 = 116

10448 + 116 = 10564

ANOHR = AVERAGE NET OPERATING HEAT RATE NOF = NET OPERATING FACTOR

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE GANNON UNIT NO. 6 HEAT RATE DATA APRIL 1997 - SEPTEMBER 1997

WEIGHTING FACTOR = 8.61%

	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwh)	10471	10467
STA. NET GEN. (GWH)	1148.8	1164.0
OPER. Btu (10^9 btu)	12028.716	12183 631
NET OUTPUT FACTOR	79.7	80.6

0.000 HEAT RATE POINTS

10465

ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURRENT EQUATION NOF(3.0441) + 10228.2 = ANOHR 80.6 (3.0441) + 10228.2 = 10473 10467 - 10473 = -6

ANOHR = A VERAGE NET OPERATING HEAT RATE NOF = NET OPERATING FACTOR

10471 +

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE BIG BEND UNIT NO. 1 HEAT RATE DATA APRIL 1997 - SEPTEMBER 1997

WEIGHTING FACTOR =

8.18%

	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwh)	9968	10447
STA. NET GEN. (GWH)	1175.9	1033.3
OPER. Btu (10^9 btu)	11721.296	10795.053
NET OUTPUT FACTOR	90.4	82.1

-5.735 HEAT RATE POINTS

ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURRENT EQUATION NOF(-33.9219) + 13034.3 = ANOHR

82.1 (-33.9219) + 13034.3 = 10251 10447 - 10251 = 196

9968 + 196 = 10164

ANOHR = AVERAGE NET OPERATING HEAT RATE NOF = NET OPERATING FACTOR

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE BIG BEND UNIT NO. 2 HEAT RATE DATA APRIL 1997 - SEPTEMBER 1997

WEIGHTING FACTOR =

9.36%

	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwh)	10079	10320
STA. NET GEN. (GWH)	1468.3	1419.5
OPER. Btu (10^9 btu)	14799.087	14649.868
NET OUTPUT FACTOR	88.7	78.3

0.691 HEAT RATE POINTS

ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURRENT EQUATION NOF(-31.6047) + 12882.2 = ANOHR

78.3 (-31.6047) + 12882.2 = 10408 10320 - 10408 = -88 10079 + -88 = 9991

ANOHR = AVERAGE NET OPERATING HEAT RATE NOF = NET OPERATING FACTOR

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE BIG BEND UNIT NO. 3 HEAT RATE DATA APRIL 1997 - SEPTEMBER 1997

WEIGHTING FACTOR =

7.07%

	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwh)	9969	10077
STA. NET GEN. (GWH)	1506.0	1227.7
OPER. Btu (10^9 btu)	15013.748	12370.805
NET OUTPUT FACTOR	85.7	80.4

0.000 HEAT RATE POINTS

ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURRENT EQUATION NOF(-16.9753) + 11424.1 = ANOHR 80.4 (-16.9753) + 11424.1 = 10058 10077 - 10058 = 19 9969 + 19 = 9988

ANOHR = A VERAGE NET OPERATING HEAT RATE NOF = NET OPERATING FACTOR

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE BIG BEND UNIT NO. 4 HEAT RATE DATA APRIL 1997 - SEPTEMBER 1997

WEIGHTING FACTOR = 6.55%

	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwh)	9992	10199
STA. NET GEN. (GWH)	1682.9	1491.7
OPER. Btu (10^9 btu)	16815.041	15214.317
NET OUTPUT FACTOR	92.5	85.8

0.000 HEAT RATE POINTS

9970

ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURRENT EQUATION NOF(-34.1420) + 13150.0 = ANOHR 85.8 (-34.1420) + 13150.0 = 10221 10199 - 10221 = -22

-22

ANOHR = A VERAGE NET OPERATING HEAT RATE NOF = NET OPERATING FACTOR

9992

GPIF PLANNED OUTAGE SCHEDULE - ACTUAL

APRIL 1997 - SEPTEMBER 1997

PLANNED OUTAGE

STATION/UNIT DATES

*BIG BEND 1 MAR 22 - MAY 16

OUTAGE REASON

HTSH (Partial Replacement)
PRRH (Partial Replacement
REPL. 2nd Rad. SH (Partial)
REPL. HOT GAS Duct PH-2
REPL. PPTR. PLATES
NOSE ARCH (Partial Repl.)
REPL. FURNACE FLOOR REF.

HP INSPECTION
GENERATOR INSPECTION

BFPT INSPECTION

ANNUAL MAINTENANCE

DITT MOTECT

OUTAGE

BIG BEND 3

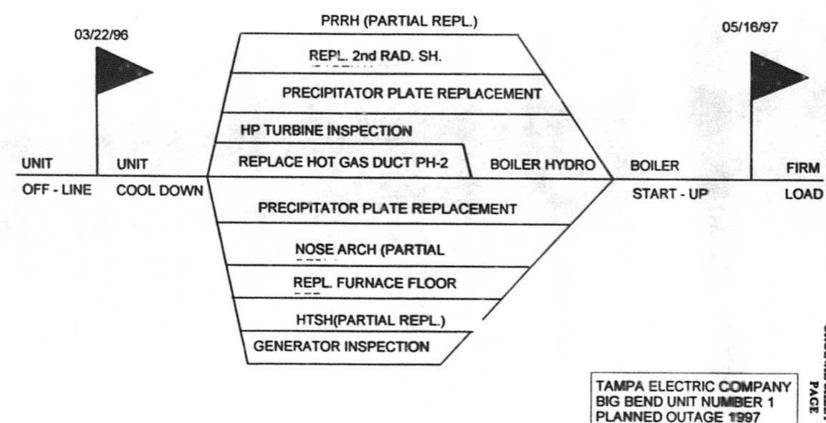
JUL 11 - AUG 03

Milestone or Critical Path Charts of actual schedule are included on page 20.

^{*}Start / End dates outside of GPIF period.

Outage is less than two weeks in duration and a CPM was not included for this unit.

ACTUAL CPM 11/12/97



GENERATING PERFORMANCE INCENTIVE POINTS TABLE

APRIL 1997 - SEPTEMBER 1997

GANNON 5

EQUIVALENT VAILABILITY POINTS	SAVINGS / (LOSS) (S X 1000)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	HEAT RATE FORMTS	EAVINGS / (LOSS) (S X 1980)	ADJUSTED ACTUA AVERAGE HEAT RATI.
+10	248.1	92.0	+10	436.0	10043
+9	223.3	91.8	+9	392.4	10076
-1	198.5	91.6	-1	348.8	10109
+7	173.7	91.4	+7	305.2	10142
+6	148.9	91.2	+6	261.6	10175
+5	124.1	91.0	+5	218.0	10208
+4	99.2	90.8	+4	174.4	10241
+3	74.4	90.6	+3	130.8	10274
+2	49.6	90.4	+2	87.2	10307
+1	24.8	90.2	+1	43.6	10340
				0.0	10373
0	0.0	90.0	0	0.0	10448
				0.0	10523
-1	(57.9)	29.6		AHR (43.6) Actual	10556
-2	(115.7)	89.2		DINTS ANOHO 10564	
-3	(173.6)	88.8	-3	(130.8)	10622
4	(231.4)	88.4	4	(174.4)	10655
-5	(289.3)	88.0	-5	(218.0)	10688
-6	(347.2)	\$7.6	-6	(261.6)	10721
-7	(405.0)	87.2	-7	(305.2)	10754
-8	(462.9)	86.8	-8	(348.8)	10787
٠,	AF (520.7)	86.4	-9	(392.4)	10820
-10 ⋖ PO	AF INTS (578.6) EAF 74.4%	▶ 86.0	-10	(436.0)	10853
- Charles	Weighting Factor =				

GENERATING PERFORMANCE INCENTIVE POINTS TABLE

APRIL 1997 - SEPTEMBER 1997

GANNON 6

EQUIVALENT AVAILABILITY POINTS	FUEL SAVINGS / (LOSS) (S X 1990)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE POINTS	FUEL SAVINGS / (LOSS) (S X 1000)	ADJUSTED ACTUA AVERAGE HEAT RATE
+10	248.1	88.7	+10	486.6	10177
+9	223.3	88.5	+9	437.9	10199
-1	198.5	88.2	+1	389.3	10221
-7	173.7	28.0	+7	340.6	10243
+6	148.9	87.7	+6	292.0	10265
+5	124.1	87.5	+5	243.3	10287
-4	99.2	87.3	+4	194.6	10308
+3	74.4	\$7.0	+3	146.0	10330
-2	49.6	86.8	+2	97.3	10352
+1	24.8	86.5	+1	48.7	10374
			green.	0.0 Adjuste	
0	0.0	86.3	0 - P	AHR OINTS 0.0 ANOH	R 10471
				0.000 0.0	10546
-1	(57.9)	85.9	-1	(48.7)	10568
-2	(115.7)	85.5	-2	(97.3)	10590
-3	(173.6)	85.1	-3	(146.0)	10612
4	(231.4)	84.7	-4	(194.6)	10634
-5	(289.3)	84.4	-5	(243.3)	10656
-6	(347.2)	84.0	-6	(292.0)	10677
-7	(405.0)	83.6	-7	(240.6)	10699
-8	(462.9)	83.2	-4	(349.3)	10721
-9	(520.7)	mag #2.#	-9	(437.9)	10743
-10-PC	EAF DINTS (578.6) EAF 18.000 78.9	12.4	-10	(486.6)	10765
	Weighting Factor =	5.23%		Weighting Factor =	E.61%

GENERATING PERFORMANCE INCENTIVE POINTS TABLE

APRIL 1997 - SEPTEMBER 1997

EQUIVALENT AVAILABILITY POINTS	FUEL SAVENOS / (LOSS) (S X 1690)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE POINTS	FUEL. SAVINGS / (LOSS) (3 X 1000)	ADJUSTED ACTUAL AVERAGE HEAT RATE
+10	542.9	70.9	+10	462.4	9672
+9	481.6	70.6	+9	416.2	9703
+8	434.3	70.3	+1	369.9	9724
+7	380.0	70.0	+7	323.7	9745
+6	325.7	69.7	+6	277.4	9766
+5	271.5	69.4	+5	231.2	9788
-4	217.2	69.0	+4	185.0	9809
+3	162.9	68.7	+3	139.7	9830
+2	108.6	68.4	+2	92.5	9851
+1	54.3	68.1	+1	46.2	9872
				0.0	9893
0	0.0	67.8	0	0.0	9968
				0.0	10043
-1	136.3	67.2	-1	(46.2)	10064
-2	272.5	66.6	-2	(92.5)	10085
-3 P	EAF OINTS 408.8 EAF	65.9	-3	(138.7)	10106
4	2.843 545.0	65.3	4	(185.0)	10127
-5	681.3	64.7	-5	AHR (231.2) Adjusted Actual	10149
-6	817.5	64.1		POINTS ANOHR 10164	10170
-7	953.8	63.5	-7	(323.7)	10191
-4	1,090.0	62.8	-8	(369.9)	10212
-9	1,226.3	62.2	-9	(416.2)	10233
-10	1,362.5	61.6	-10	(462.4)	10254
	Weighting Factor =	9.61%		Weighting Factor	8.18%

GENERATING PERFORMANCE INCENTIVE POINTS TABLE

APRIL 1997 - SEPTEMBER 1997

AVAILABILITY POINTS	SAVINGS / (I.OSS) (S X 1990)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE POINTS	FUEL SAVINGS / (LOSS) (S X 1000)	ADJUSTED ACTUAL AVERAGE HEAT RATE
+10	595.0	87.9	+10	529.0	9816
	EAF 535.5 Adjuste	87.6	+9	476.1	9835
	DINTS EAF 1.414 476.0 87,4	17.3	+6	423.2	9854
+7	416.5	87.0	+7	370.3	9872
+6	357.0	86.7	+6	317.4	9891
+5	297.5	86.4	+5	264.5	9910
+4	238.0	86.1	+4	211.6	9929
+3	178.5	85.8	+3	158.7	9948
+2	119.0	85.5	+2	105.8 Adjuste	9966
+1	59.5	85.2	+1 P	AHR Actual Actual ANOHIS	9985
				0.691 9991	10004
0	0.0	84.9	o	0.0	10079
				0.0	10154
-1	(118.1)	84.3	-1	(52.9)	10173
-2	(236.3)	83.7	-2	(105.8)	10192
-3	(354.4)	83.1	-3	(158.7)	10210
4	(472.6)	82.5	4	(211.6)	10229
-5	(590.7)	81.9	-5	(264.5)	10248
-6	(708.8)	81.3	-6	(317.4)	10267
-7	(827.0)	80.7	-7	(370.3)	10286
-4	(945.1)	80.1	4	(423.2)	10304
-9	(1,063.3)	79.5	-9	(476.1)	10323
-10	(1,181.4)	78.9	-10	(529.0)	10342
٠	Weighting Factor *	10.53%		Weighting Factor =	9.36%

GENERATING PERFORMANCE INCENTIVE POINTS TABLE

APRIL 1997 - SEPTEMBER 1997

EQUIVALENT AVAILABILITY POINTS	FUEL SAVINGS / (LOSS) (5 X 1995)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE FORNTS	SAVINGS / (LOSS) (S X 1999)	ADJUSTED ACTUAL AVERAGE HEAT BATE
+10	873.2	87.4	+10	399.4	9759
+9	785.9	87.1	+9	359.5	9773
-1	698.6	86.8	+8	319.5	9786
+7	611.2	86.5	+7	279.6	9800
+6	523.9	86.2	+6	239.6	9613
+5	436.6	85.9	+5	199.7	9827
-4	349.3	85.5	+4	159.8	9840
+3	262.0	85.2	+3	119.8	9854
+2	174.6	84.9	+2	79.9	9867
+1	87.3	84.6	+1	39.9	9881
			emile.	0.0	9894
0	EAF 0.0 Adjuste	П из	0 - P	AHR OINTS 0.0 Actus	4 9969
← P	OINTS EAF -0.221 84.1	-		0.000 ANOH	
-1	146.3	83.7	-1	(39.9)	10058
-2	292.5	83.0	-2	(79.9)	10071
-3	438.8	82.4	-3	(119.8)	10085
4	585.0	81.7	4	(159.8)	10098
-5	731.3	81.1	-5	(199.7)	10112
-6	877.5	80.5	-6	(239.6)	10125
-7	1,023.8	79.8	-7	(279.6)	10139
-8	1,170.0	79.2	4	(319.5)	10152
-9	1,316.3	78.5	-9	(359.5)	10166
-10	1,462.5	77.9	-10	(399.4)	10179
	Weighting Factor =	15.45%		Weighting Factor =	7.07%

GENERATING PERFORMANCE INCENTIVE POINTS TABLE

APRIL 1997 - SEPTEMBER 1997

EQUIVALENT AVAILABILITY POINTS	FUEL SAVINGS / (LOSS) G X 1000)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE POINTS	FUEL SAVINGS / (LOSS) (3 X 1600)	ADJUSTED ACTUAL AVERAGE HEAT RATE
+10	412.6	93.2	+10	370.2	9825
+9	371.3	93.0	+9	333.2	9834
+1	330.1	92.9	+4	296.2	9843
+7	288.8	92.7	+7	259.1	9853
+6	247.6	92.5	+6	222.1	9862
+5	206.3	92.4	+5	1#5.1	9871
-4	165.0	92.2	+4	148.1	9880
+3	123.8	92.0	+3	111.1	9889
+2	82.5	91.8	+2	74.0	9899
+1	41.3	91.7	+1	37.0	9908
				0.0 Adjust	ed 9917
0	0.0	91.5	0 P	AHR Actus	R 9992
			17.6	0.00 9976	10067
-1	77.6	91.2	-1	(37.0)	10076
-2	155.3	90.8	-2	(74.0)	10085
-3	232.9	90.5	-3	(111.1)	10095
4	310.6	90.1	4	(148.1)	10104
-5	388.2	89.8	-5	(185.1)	10113
-6	465.8	89.5	-6	(222.1)	10122
-7	543.5	89.1	-7	(259.1)	10131
-1	621.1	68.6	4	(296.2)	10141
-9	698.8 Adjusted	EE.4	-9	(333.2)	10150
-10 PO	AF Adjusted EAF 82.8	■ II.1	-10	(370.2)	10159
	Weighting Factor =	7.30%		Weighting Factor =	6.55%

COMPARISON OF GPIF TARGETS VS. PRIOR PERIOD ACTUAL PERFORMANCE

APRIL 1997 - SEFTEMBER 1997

AVAILABILITY

TARGET WEIGHTING		NORMALIZED WEIGHTING	TARGET PERIOD APR 97 - SEP 97			ACTUAL PERFORMANCE APR 97 - SEP 97		
PLANT/UNIT	FACTOR	FACTOR	POF	EUOF	EUOR	POF	EUOF	EUOR
BIG BEND I	9.61%	18.3	22.4	9.8	12.6	26.1	11.0	14.9
BIG BEND 2	10.53%	20.1	0.0	15.1	15.1	0.0	12.6	12.6
BIG BEND 3	15.45%	29.4	0.0	15.7	15.7	15.3	13.4	15.8
BIG BEND 4	7.30%	13.9	0.0	8.5	8.5	0.0	17.2	17.2
GANNON 5	4.39%	8.4	0.0	10.0	10.0	0.0	25.3	25.3
GANNON 6	5,23%	10.0	3.8	9,9	10.3	0.0	18.0	18.0
	52.51%	100.0						
GPIF SYSTEM WI	EIGHTED AVERAGE		4.5	12.4	13.0	9.3	14.8	16.2
GPIF SYSTEM W	IGHTED EQUIVALE	NT AVAILABILITY	-	83.1		_	75.9	
			5 PERIO POF	D AVERAGE EUOF	EUOR	5 PERI	OD AVERA	GE
			7.1	11.0	11.9		81.9	

AVERAGE NET OPERATING HEAT RATE (Btu/kwh)

PLANT/UNIT	TARGET WEIGHTING FACTOR	NORMALIZED WEIGHTING FACTOR	HEAT RATE TARGET	ADJUSTED ACTUAL HEAT RATE APR 97 - SEP 97
GANNON 5	7.72%	16.3	10448	10564
GANNON 6	8.61%	18.1	10471	10465
BIG BEND I	8.18%	17.2	9968	10164
BIG BEND 2	9.36%	19.7	10079	9991
BIG BEND 3	7.07%	14.9	9969	9988
BIG BEND 4	6.55%	13.8	9992	9970
•	47.49%	100.0		
GPIF SYSTEM WE	EIGHTED AVERAGE	HEAT RATE (Btu/kwh)	10162	10197

TAMPA ELECTRIC COMPANY GENERATING PERFORMANCE INCENTIVE POINTS CALCULATION APRIL 1997 - SEPTEMBER 1997

Points are calculated according to the formula:

GPIP =
$$\leq_{i}^{n}$$
 [(a_i)(EAP_i) + (e_i)(AHRP_i)]

Where:

i=1,n

a = Unit equivalent availability weighting factor

EAP = Unit equivalent availability points

e = Station average heat rate weighting factor

AHRP = Station average heat rate points

Weighting factors and point values are listed in separate tables.

REWARD/PEN ALTY dollar amounts of the Generating Performance Incentive Factor (GPIF) are determined directly from the table for the corresponding Generating Performance Points (GPIP) - see page 2.

GPIP = (\$363,850)