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July 9, 1999



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. 990001-EI

Dear Ms. Bayo:

Enclosed for filing in the above docket on behalf of Tampa Electric Company are the original and ten (10) copies of supplemental Prepared Direct Testimony and Exhibit (CTAH-1) of Chonta T. A. Haynes regarding Generating Performance Incentive Factor (GPIF) for the period April 1998 – September 1998. This testimony and exhibit were inadvertently omitted from the company's April 1, 1999 filing.

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

Thank you for your assistance in connection with this matter.

CENED Sincerely,

Games D. Beasley

JDB/pp Enclosures

All Parties of Record (w/enc.)

DOCUMENT NUMBER-DATE

08194 JUL-98

FPSC-RECORDS/REPORTING

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy of the foregoing Testimony and Exhibit (CTAH-1),

filed on behalf of Tampa Electric Company, has been furnished by U. S. Mail or hand delivery (*)

on this q day of July, 1999 to the following:

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Division of Legal Services
Florida Public Service Commission
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ATTORNEY

TAMPA ELECTRIC COMPANY DOCKET NO. 990001-EI

(TRUE-UP)

	0	
1		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2		PREPARED DIRECT TESTIMONY
3		OF
4		CHONTA T.A. HAYNES
5		
6	Q.	Will you please state your name, business address, and
7		employer?
8	-	
9	A.	My name is Chonta T.A. Haynes and my business address is
10	0	Post Office Box 111, Tampa, Florida 33601. I am employed
11		by Tampa Electric Company.
12		
13	Q.	Please furnish us with a brief outline of your educational
14		background and business experience.
15		
16	-A.	I am an Electrical Engineering graduate of Georgia
17		Institute of Technology and the University of Miami (FL).
18		My bachelors degree was obtained in 1983 from Georgia Tech
19		and I received my masters degree in 1991 from U of M. My
20		career spans 15 years with various engineering positions in
21		the utility and automotive industries. I am currently
22		employed by Tampa Electric Company as a Senior Engineer in
23		the Operation Services group.
24		

1 0. What are your current responsibilities? 2 3 A. responsible for unit performance analysis and reporting of generation statistics. 4 5 6 What is the purpose of your testimony? Q. 7 8 My testimony presents the actual performance results from unit equivalent availability and station heat rate used to 9 10 determine the Generating Performance Incentive Factor (GPIF) for the period April 1998 through September 1998. 11 12 will also compare these results to the targets 13 established prior to the beginning of the period. 14 15 Q. Have you prepared an exhibit with the results for this six 16 month period? 17 18 A. The exhibit entitled "Tampa Electric Company, April 19 1998 - September 1998, Generating Performance Incentive 20 Factor Results" consists of 28 pages and is filed with this 21 testimony (Have identified as Exhibit CTAH-1). 22 Have you calculated the results of Tampa Electric Company 23

for its performance under the GPIF during this period?

24

A. Yes, I have. This is shown on page 4 of my exhibit. Based upon -.986 GPIF points, the result is a penalty amount of \$229,924 for the period.

Q. Please proceed with your review of the actual results for the April 1998 - September 1998 period.

A. On page 3 of my exhibit, the actual average common equity for the period is shown on line 8 as \$1,162,139,343. This produces the maximum penalty or reward figure of \$2,331,887 as shown on line 15, page 3.

Q. Will you explain how you arrived at the actual equivalent availability results for the six units included within the GPIF?

-

A. Yes, I will. Operating data on each of our units is filed monthly with the Florida Public Service Commission on the Actual Unit Performance data form. Additionally, outage information is reported to the Commission on a monthly basis. A summary of this data for the six months provides the basis for the GPIF.

Q. 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 1998 period and none in fact occurred. Consequently, the actual equivalent availability requires no adjustment as shown on page 7 of my exhibit.

Gannon Unit No. 6

On this unit, 336 planned outage hours were originally scheduled to fall within the Summer 1998 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 75.8%, as shown on page 8 of my exhibit.

Big Bend Unit 1

On this unit 336 planned outage hours were originally scheduled to fall within the Summer 1998 period. Due to a revision of the outage schedule, this outage occurred after the Summer period, and no planned outage hours fell within the period. Consequently, the actual equivalent availability of 85.5% is adjusted to 79.0% 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 1998 period. Due to a revision of the outage schedule, this outage was moved forward and 913.2 planned outage hours fell within the period. Consequently, the actual equivalent availability of 67.8% is adjusted to 85.6% as shown on page 10 of my exhibit.

Big Bend Unit No. 3

On this unit 791 planned outage hours were originally scheduled to fall within the Summer 1998 period. Due to a reprioritization of work, the outage was shortened and

393.8 planned outage hours fell within the period. Consequently, the actual equivalent availability of 71.4% is adjusted to 64.3% as shown on page 11 of my exhibit.

Big Bend Unit No. 4

On this unit no planned outage hours were scheduled to fall within the Summer 1998 period, and none in fact occurred. Consequently, the actual equivalent availability of 89.2% 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 the Gannon units and Big Bend Station are shown on page 6 of my

exhibit. The adjustment was developed based on the guidelines of section 4.3.16 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 compatibility 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?

25 A. Yes.

Q. What is the overall GPIP for Tampa Electric Company during this six month period? A. 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, -.986, is then entered into the GPIF table on page 2. Using linear interpolation, a penalty amount of \$229,924 is calculated. Does this conclude your testimony? A. Yes, it does.

DOCKE: NO. 990001 - EI
TAMPA ELECTRIC COMPANY
(CTAH -1)
PAGE 1 OF 28

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TAMPA ELECTRIC COMPANY GENERATING PERFORMANCE INCENTIVE POINTS TABLE REWARD / PENALTY TABLE - ACTUAL APRIL 1998 - SEPTEMBER 1998

 GENERATING PERFORMANCE INCENTIVE POINTS (GPIP)	FUEL SAVINGS / (LOSS) (\$000)	GENERATING PERFORMANCE INCENTIVE FACTOR (\$000)
+10	6,630.7	2,331.9
+9	5,967.6	2,098.7
+8	5,304.6	1,865.5
+7	4,641.5	1,632.3
+6	3,978.4	1,399.1
+5	3,315.4	1,165.9
+4	2,652.3	932.8
+3	1,989.2	699.6
+2	1,326.1	466.4
+1	663.1	233.2
0	GPIP 0 REWARD	0.0
-1	Points DOLLARS (\$229,924)	(233.2)
-2	(1,945.5)	(466.4)
-3	(2,918.3)	(699.6)
-4	(3,891.0)	(932.8)
_5 -	(4,863.8)	(1,165.9)
-6	(5,836.6)	(1,399.1)
-7	(6,809.3)	(1,632.3)
-8	(7,782.1)	(1,865.5)
-9	(8,754.8)	(2,098.7)
-10	(9,727.6)	(2,331.9)

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

APRIL 1998 - SEPTEMBER 1998

Line 1	Beginning of period balance of common equity end of month common equity:	\$1,145,671,810
Line 2	Month of April 1998	\$1,131,405,751
Line 3	Month of May 1998	\$1,148,822,283
Line 4	Month of June 1998	\$1,168,109,175
Line 5	Month of July 1998	\$1,162,731,120
Line 6	Month of August 1998	\$1,182,491,844
Line 7	Month of September 1998	\$1,195,743,419
Line 8	(summation of line 1 through line 7 divided by 7)	\$1,162,139,343
Line 9	25 Basis points	0.0025
Line 10	Revenue expansion factor	61.3738%
Line 11	Maximum allowed incentive Dollars (Line 8 times line 9 divided by line 10 times 0.5)	\$2,366,929
Line 12	Jurisdictional Sales	8549852 MWH
Line 13	⁻ Total Sales	8678332 MWH
Line 14	Jurisdictional Separation Factor (Line 12 divided by line 13)	98.52%
Line 15	Maximum Allowed Jurisdictional Incentive	
	Dollars (Line 11 times line 14)	\$2,331,887

TAMPA ELECTRIC COMPANY CALCULATION OF SYSTEM GPIF POINTS APRIL 1998 - SEPTEMBER 1998 ACTUAL

PLANT/UNIT	ADJ AO PERFOR		WEIGHTING FACTOR %	UNIT POINTS	WEIGHTED UNIT POINTS
GANNON 5	84.2%	EAF	5.22%	-0,938	-0.049
GANNON 6	75.8%	EAF	5.06%	-10.000	-0.506
BIG BEND I	79.0%	EAF	10.92%	2.188	0.239
BIG BEND 2	85.6%	EAF	9.38%	-1.490	-0.140
BIG BEND 3	64.3%	EAF	13.19%	-6.274	-0.828
BIG BEND 4	89.2%	EAF	3.15%	-8.310	-0.262
GANNON 5	10321	ANOHR	7.58%	0.000	0.000
GANNON 6	10643	ANOHR	10.09%	-1.262	-0.127
BIG BEND 1	10117	ANOHR	11.15%	2.577	0.287
BIG BEND 2	9970	ANOHR	7.96%	7.059	0.562
BIG BEND 3	9899	ANOHR	9.38%	-1.723	-0.162
BIG BEND 4	9885	ANOHR	6.92%	0.000	0.000

-0.986

GPIF REWARD

(\$229,924)

GPIF TARGET AND RANGE SUMMARY

APRIL 1998 - SEPTEMBER 1998

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	5,22%	84.8	87.9	78.9	346.2	(660.8)	84.2%	(62.0)
GANNON 6	5.06%	81.1	83.8	75.9	335.4	(823.9)	75.8%	(823.9)
BIG BEND 1	10.92%	78.3	81.5	72.0	724.0	(1,391.9)	79.0%	304.6
BIG BEND 2	9.38%	86.4	89.1	81.0	622.0	(1,212.2)	85.6%	(180.6)
BIG BEND 3	13.19%	68.8	72.3	61.7	874.4	(1,694.8)	64.3%	(1,063.4)
BIG BEND 4	3.15%	91.9	93.5	88.7	208.9	(424.2)	89.2%	(352.5)
GPIF SYSTEM	46.92%	85			3,110.9	(6,207.8)		

AVERAGE NET OPERATING HEAT RATE FOR GPIF COAL GENERATING UNITS

PLANT/UNIT	WEIGHTING FACTOR (%)	ANOHR Btu/kwh	TARGET NOF		ANOHR TANO		MAX. FUEL SAVINGS (\$000)	MAX. FUEL LOSS (\$000)	ACTUAL ADJUSTED ANOHR	ACTUAL FUEL SAVINGS/ LOSS (\$000)
GANNON 5	7.58%	10377	89.0	10.00	9899	10855	502.6	(502.6)	10321	0.0
GANNON 6	10.09%	10527	91.3		10127	10927	669,3	(669.3)	10643	(84.4)
BIG BEND 1	11.15%	10267	83.6		9901	10633	739.0	(739.0)	10117	190.5
BIG BEND 2	7.96%	10225	83.1		9895	10555	527.8	(527.8)	9970	372.6
BIG BEND 3	9.38%	9778	94.5		9436	10120	621.7	(621.7)	9899	(107.1)
BIG BEND 4	6.92%	9831	96.6		9643	10019	459.4	(459.4)	9885	0.0
GPIF SYSTEM	53.08%						3,519.8	(3,519.8)		

ACTUAL

TAMPA ELECTRIC COMPANY ACTUAL UNIT PERFORMANCE DATA APRIL 1998 - SEPTEMBER 1998

PLANT / UNIT	ACTUAL EAF %	ADJUSTMENTS (1) EAF	EAF ADJUSTED ACTUAL %
GANNON 5	84.2	0.0	84.2
GANNON 6	82.0	-6.2	75.8
BIG BEND 1	85.5	-6.5	79.0
BIG BEND 2	67.8	17.8	85.6
BIG BEND 3	71.4	-7,1	64.3
BIG BEND 4	89.2	0,0	89.2
PLANT / UNIT	ACTUAL ANOHR Btu/kwh	ADJUSTMENTS (2) TO ANOHR Btu/kwh	ANOHR ADJUSTED ACTUAL Btu/kwh
GANNON 5	10475	-154	10321
GANNON 6	10540	103	10643
BIG BEND 1	10225	-108	10117
BIG BEND 2	10101	-131	9970
BIG BEND 3	10228	-329	9899
BIG BEND 4	10074	-189	9885

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

⁽²⁾ Documentation of adjustments to Actual ANOHR on pages 13 - 18

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE GANNON UNIT NO. 5 APRIL 1998 - SEPTEMBER 1998

WEIGHTING FACTOR =

5.22%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
P.H.	4391.0	4391.0	4391.0
E.A.F.	84.8	84.2	84.2
P.O.H.	0.0	0.0	0.0
F.O.H. + E.F.O.H	555.0	499.7	499.7
M.O.H. + E.M.O.H	111.0	191.6	191.6
P.O.F.	0.0	0.0	0.0
E.F.O.F.	12.6	11.4	11.4
E.M.O.F.	2.5	4.4	4.4

-0.938 E. A. POINTS

ADJUSTMENTS TO E.A.F.

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 1998 - SEPTEMBER 1998

WEIGHTING FACTOR =

5.06%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
P.H.	4391.0	4391.0	4391.0
E.A.F.	81.1	82.0	75.8
P.O.H.	336.0	0.0	336.0
F.O.H. + E.F.O.H	292.0	451.2	_ 416.7
M.O.H. + E.M.O.H	203.0	337.7	311.9
P.O.F.	7.7	0.0	7.7
E.F.O.F.	6.6	10.3	9.5
E.M.O.F.	4.6	7.7	7.1

-10.000 E. A. POINTS

ADJUSTMENTS TO E.A.F.

$$\frac{4391 - 336}{4391 - 0} X (22.2 + 429.0 + 195.1 + 142.6) = 728.5$$

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

EMOF = EQUIVALENT MAINTENANCE OUTAGE FACTOR

EUOF = EQUIVALENT UNPLANNED OUTAGE FACTOR

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE BIG BEND UNIT NO. 1 APRIL 1998 - SEPTEMBER 1998

WEIGHTING FACTOR =

10.92%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
Р.Н.	4391.0	4391.0	4391.0
E.A.F.	78.3	85.5	79.0
P.O.H.	336.0	0.0	336.0
F.O.H. + E.F.O.H	413.0	468.8	_ 432.9
M.O.H. + E.M.O.H	202.0	165.9	153.2
P.O.F.	7.7	0.0	7.7
E.F.O.F.	9.4	10.7	9.9
E.M.O.F.	4.6	3.8	3.5
			10°

2.188 E. A. POINTS

ADJUSTMENTS TO E.A.F.

$$\frac{336 + 586}{4391} \times 100 = 21.0$$

$$100.0 - 21.0 = 79.0$$

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

EMOF = EQUIVALENT MAINTENANCE OUTAGE FACTOR

EUOF = EQUIVALENT UNPLANNED OUTAGE FACTOR

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE BIG BEND UNIT NO. 2 APRIL 1998 - SEPTEMBER 1998

WEIGHTING FACTOR =

9.38%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
P.H.	4391.0	4391.0	4391.0
E.A.F.	86.4	67.8	85.6
P.O.H.	0.0	913.2	0.0
F.O.H. + E.F.O.H	401.0	352.5	445.1
M.O.H. + E.M.O.H	195.0	148.4	187.4
P.O.F.	0.0	20.8	0.0
E.F.O.F.	9.1	8.0	10.1
E.M.O.F.	4.4	3.4	4.3

-1.490 E. A. POINTS

ADJUSTMENTS TO E.A.F.

$$\frac{4391 - 0}{4391 - 913} X (231.6 + 120.9 + 35.3 + 113.1) = 632.4$$

85.6

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

EMOF = EQUIVALENT MAINTENANCE OUTAGE FACTOR

EUOF = EQUIVALENT UNPLANNED OUTAGE FACTOR

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE BIG BEND UNIT NO. 3 APRIL 1998 - SEPTEMBER 1998

WEIGHTING FACTOR =

13.19%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
P.H.	4391.0	4391.0	4391.0
E.A.F.	68.8	71.4	64.3
Р.О.Н.	791.0	393.8	791.0
F.O.H. + E.F.O.H	431.0	700.2	630.6
M.O.H. + E.M.O.H	150.0	159.9	144.0
P.O.F.	18.0	9.0	18.0
E.F.O.F.	9.8	15.9	14.4
E.M.O.F.	3.4	3.6	3.3

-6.274 E. A. POINTS

ADJUSTMENTS TO E.A.F.

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

EMOF = EQUIVALENT MAINTENANCE OUTAGE FACTOR

EUOF = EQUIVALENT UNPLANNED OUTAGE FACTOR

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE BIG BEND UNIT NO. 4 APRIL 1998 - SEPTEMBER 1998

WEIGHTING FACTOR =

3.15%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
P.H.	4391.0	4391.0	4391.0
E.A.F.	91.9	89.2	89.2
P.O.H.	0.0	0.0	0.0
F.O.H. + E.F.O.H	213.0	253.7	_ 253.7
M.O.H. + E.M.O.H	141.0	218.3	218.3
P.O.F.	0.0	0.0	0.0
E.F.O.F.	4.9	5.8	5.8
E.M.O.F.	3.2	5.0	5.0

-8.310 E. A. POINTS

ADJUSTMENTS TO E.A.F.

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

EMOF = EQUIVALENT MAINTENANCE OUTAGE FACTOR

EUOF = EQUIVALENT UNPLANNED OUTAGE FACTOR

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE GANNON UNIT NO. 5 HEAT RATE DATA APRIL 1998 - SEPTEMBER 1998

WEIGHTING FACTOR =

7.58%

	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwh)	10377	10475
STA. NET GEN. (GWH)	682.3	734.1
OPER. Btu (10^9 btu)	7079.988	7689.155
NET OUTPUT FACTOR	89.0	- 79.2

0.000 HEAT RATE POINTS

ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURRENT EQUATION NOF(-15.6845) + 11773.1 = ANOHR

79.2 (-15.6845) + 11773.1 = 10531

10475 - 10531 = -56

10377 + -56 = 10321

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE GANNON UNIT NO. 6 HEAT RATE DATA APRIL 1998 - SEPTEMBER 1998

WEIGHTING FACTOR =

10.09%

	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwh)	10527	10540
STA. NET GEN. (GWH)	1151.3	1143.6
OPER. Btu (10^9 btu)	12120.697	12054.383
NET OUTPUT FACTOR	91.3	76.5

-1.262 HEAT RATE POINTS

ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURRENT EQUATION NOF(7.0159) + 9886.9 = ANOHR

76.5 (7.0159) + 9886.9 = 10424

10540 - 10424 = 116

10527 + 116 = 10643

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE BIG BEND UNIT NO. 1 HEAT RATE DATA APRIL 1998 - SEPTEMBER 1998

WEIGHTING FACTOR = 11.15%

	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwh)	10267	10225
STA. NET GEN. (GWH)	1355.3	1333.2
OPER. Btu (10^9 btu)	13915.115	13632.341
NET OUTPUT FACTOR	83.6	_ 79.2

2.577 HEAT RATE POINTS

ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURREN	T EQUATION	NOF(-24	.5419) + 1	2319.0 = ANOHR
79.2	(-24.5419) + 12:	319.0 =		10375
10225	-	10375	=	-150
10267	+	-150	=	10117

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE BIG BEND UNIT NO. 2 HEAT RATE DATA APRIL 1998 - SEPTEMBER 1998

WEIGHTING FACTOR =

7.96%

	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwh)	10225	10101
STA. NET GEN. (GWH)	1074.5	1059.1
OPER. Btu (10^9 btu)	10986.729	10698.317
NET OUTPUT FACTOR	83.1	79.3

7.059 HEAT RATE POINTS

ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURRENT EQUATION NOF(-29.1068) + 12664.0 = ANOHR

79.3 (-29.1068) + 12664.0 = 10356

10101 - 10356 = -255

10225 + -255 = 9970

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE BIG BEND UNIT NO. 3 HEAT RATE DATA APRIL 1998 - SEPTEMBER 1998

WEIGHTING FACTOR = 9.38%

	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwh)	9778	10228
STA. NET GEN. (GWH)	1607.4	1184.3
OPER. Btu (10^9 btu)	15717.682	12113.369
NET OUTPUT FACTOR	94.5	79.2

-1.723 HEAT RATE POINTS

ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURRENT EQUATION NOF(-21.5491) + 11814.6 = ANOHR

79.2 (-21.5491) + 11814.6 = 10107

10228 - 10107 = 121

9778 + 121 = 9899

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE BIG BEND UNIT NO. 4 HEAT RATE DATA APRIL 1998 - SEPTEMBER 1998

WEIGHTING FACTOR =

6.92%

a 6_	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwh)	9831	10074
STA. NET GEN. (GWH)	1753.2	1577.4
OPER. Btu (10^9 btu)	17235.118	15890.953
NET OUTPUT FACTOR	96.6	85.0

0.000 HEAT RATE POINTS

ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURRENT EQUATION NOF(-28.6185) + 12450.9 = ANOHR 85.0 (-28.6185) + 12450.9 = 10020 10074 - 10020 = 54 9831 + 54 = 9885

GPIF PLANNED OUTAGE SCHEDULE - ACTUAL

APRIL 1998 - SEPTEMBER 1998

STATION/UNIT

*BIG BEND 2

PLANNED OUTAGE DATES

MAR 21 - MAY 08

OUTAGE REASON

PRIMARY RHTR
BFPT INSPECTION
PPTR TRANS. RECTIFIER
CLASSIFIERS / MILL ENDS
HOT GAS DUCT

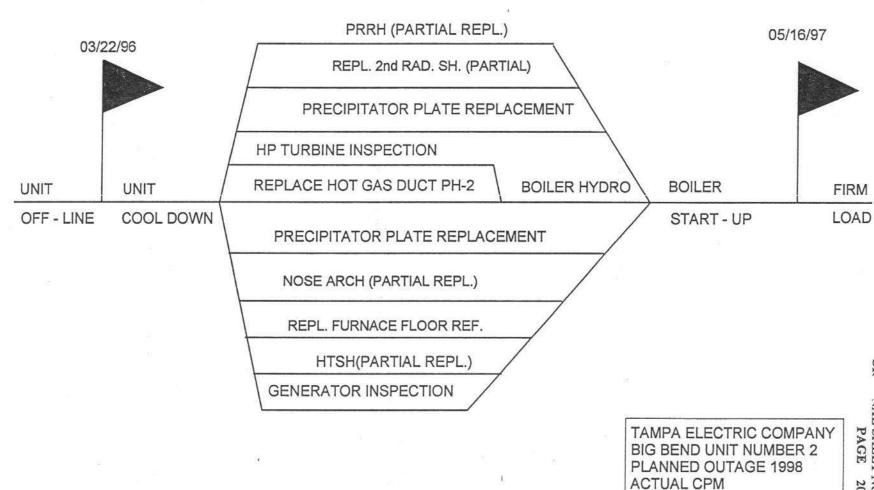
** BIG BEND 3

MAY 09 - MAY 25

WIND BOX REPAIRS

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

- *Start / End dates outside of GPIF period.
- **Outage is less than 4 weeks in duration and a CPM was not included for this unit.



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GENERATING PERFORMANCE INCENTIVE POINTS TABLE

APRIL 1998 - SEPTEMBER 1998

GANNON 5

EQUIVALENT AVAILABILITY POINTS	FUEL SAVINGS / (LOSS) (\$ X 1000)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE POINTS	FUEL SAVINGS/(LOSS) (\$ X 1000)	ADJUSTED ACTUAL AVERAGE HEAT RATE
+10	346.2	87.9	+10	502.6	9899
+9	311.6	87.6	+9	452.3	9939
+8	277.0	87.3	+8	402.1	9980
+7	242.3	87.0	+7	351.8	10020
+6	207.7	86.7	+6	301.6	10060
+5	173.1	86.4	+5	251.3	10101
+4	138.5	86.0	+4	201.0	10141
+3	103.9	85.7	+3	150.8	10181
+2	69.2	85.4	+2	100.5	10221
+1	34.6	85.1	+1	50.3	10262
				0.0 Adjusted	10302
0	0.0	84.8	0	AHR Actual POINTS 0.0 ANOHR	10377
	EAF Adjusted EAF			0.000 10321	10452
-1	-0.938 (66.1) EAT 84.2%	84.2	-1	(50.3)	10492
-2	(132.2)	83.6	-2	(100.5)	10533
-3	(198.2)	83.0	-3	(150.8)	10573
-4	(264.3)	82.4	-4	(201.0)	10613
-5	(330.4)	81.9	-5	(251.3)	10654
-6	(396.5)	81.3	-6	(301.6)	10694
-7	(462.6)	80.7	-7	(351.8)	10734
-8	(528.6)	80.1	-8	(402.1)	10774
-9	(594.7)	79.5	-9	(452.3)	10815
-10	(660.8)	78.9	-10	(502.6)	10855
				\$ = £28	
	Weighting Factor =	5.22%		Weighting Factor =	7.58%

GENERATING PERFORMANCE INCENTIVE POINTS TABLE

APRIL 1998 - SEPTEMBER 1998

GANNON 6

EQUIVALENT AVAILABILITY POINTS	SAVINGS / (LOSS) (\$ X 1000)	ADJUSTED ACTUAL EQUIVALENT AVA[LABILITY	AVERAGE HEAT RATE POINTS	FUEL SAVINGS/(LOSS) (\$ X 1000)	ADJUSTED ACTUAL AVERAGE HEAT RATE
+10	346.2	83.8	+10	669.3	10127
+9	311.6	83.5	+9	602.4	10160
+8	277.0	83.3	+8	535,4	10192
+7	242.3	83.0	+7	468.5	10225
+6	207.7	82.7	+6	401.6	10257
+5	173.1	82.5	+5	334.7	10290
+4	138.5	82.2	+4	267.7	10322
+3	103.9	81.9	+3	200.8	10355
+2	69.2	81.6	+2	133.9	10387
+1	34.6	81.4	+1	66.9	10420
				0.0	10452
0	0.0	81.1	0	0.0	10527
				0.0	10602
-1	(66.1)	80.6	-1	AHR POINTS (66.9) Adjusted Actual	10635
-2	(132.2)	80.1	-2	-1.262 ANOHR 10643	10667
-3	(198.2)	79.5	-3	(200.8)	10700
-4	(264.3)	79.0	-4	(267.7)	10732
-5	(330.4)	78.5	-5	(334.7)	10765
-6	(396.5)	73.0	-6	(401.6)	10797
-7	(462.6)	77.5	-7	(468.5)	10830
-8	(528.6)	76.9	-8	(535.4)	10862
-9	(594.7)	76.4	-9	(602.4)	10895
-10	EAF POINTS (660.8) Adjusted EAF	75.9	-10	(669.3)	10927
	-10.000 75.8			×	2022
	Weighting Factor =	5.06%		Weighting Factor =	10.09%
				THE VENEZUS CANDEST WHICH THE PERSON SERVICES	

GENERATING PERFORMANCE INCENTIVE POINTS TABLE

APRIL 1998 - SEPTEMBER 1998

				0. 92	
EQUIVALENT AVAILABILITY POINTS	FUEL SAVINGS / (LOSS) (\$ X 1000)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE POINTS	FUEL SAVINGS / (LOSS) (\$ X 1000)	ADJUSTED ACTUAL AVERAGE HEAT RATE
+10	724.0	81.5	+10	739.0	9901
+9	651.6	81.2	+9	665.1	9930
+8	579.2	80.9	+8	591.2	9959
+7	506.8	80.5	+7	517.3	9988
+6	434.4	80.2	+6	443.4	10017
+5	362.0	79.9	+5	369.5	10047
+4	289.6	79.6	+4	295.6	10076
+3	EAF 217.2 Adjusted EAF	79.3	+3	AHR 221.7 Actual	10105
+2	POINTS EAF 79.0	78.9	+2	POINTS ANOHR 2.577 147.8 10117	10134
+1	72.4	78.6	+1	73.9	10163
				0.0	10192
0	0.0	78.3	0	0.0	10267
				0.0	10342
-1	139.2	77.7	-1	(73.9)	10371
-2	278.4	77.0	-2	(147.8)	10400
-3	417.6	76.4	-3	(221.7)	10429
-4	556.8	75.8	-4	(295.6)	10458
-5	696.0	75.2	-5	(369.5)	10488
-6	835.1	74.5	-6	(443.4)	10517
-7	974.3	73.9	-7	(517.3)	10546
-8	1,113.5	73.3	-8	(591.2)	10575
-9	1,252.7	72.6	-9	(665.1)	10604
-10	1,391.9	72.0	-10	(739.0)	10633
				0.000 Per 2012	78 78 X
	Weighting Factor =	10.92%		Weighting Factor =	11.15%

GENERATING PERFORMANCE INCENTIVE POINTS TABLE

APRIL 1998 - SEPTEMBER 1998

LENT BILITY TS	FUEL SAVINGS / (LOSS) (\$ X 1000)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE POINTS	FUEL SAVINGS (LOSS) (\$ X 1000)	ADJUSTED ACTUAL AVERAGE HEAT RATE
)	622.0	89.1	+10	527.8	9895
	559.8	88.8	+9	475.0	9921
	497.6	88.6	+8	AHR 422.2	9946
	435.4	88.3	+7	POINTS Adjusted	9972
	373.2	88.0	+6	ANOHR	9997
	311.0	87.8	+5	263.9	10023
	248.8	87.5	+4	211.1	10048
	186.6	87.2	+3		10074
	124.4	86.9	+2		10074
	62.2	86.7	+1		10125
					10150
	0.0	86.4	0		10225
					10300
4	POINTS (121.2) EAF	85.9	-1		10300
	(242.4)			•	10328
	(363.7)				
	(484.9)				10377
				tropologico de la constanta de	10402
	53 38 managamana			16. 02.00 10.000 (20.00	10428
				enterpression and	10453
	50 MARKETON				10479
	#####################################				10504
	A15-70-20-10-20-20-20-20-20-20-20-20-20-20-20-20-20			(475.0)	10530
	(1,212.2)	81,0	-10	(527.8)	10555
	Weighting Faster -				
	weighting Pactor =	9.38%		Weighting Factor =	7.96%
	IS .	SAVINGS / (LOSS) (S X 1000) 622.0 559.8 497.6 435.4 373.2 311.0 248.8 186.6 124.4 62.2 0.0 EAF POINTS 1.490 (121.2) 248.8 \$5.6	SAVINGS/(LOSS) (5 X 1000) 622.0 89.1 559.8 88.8 497.6 88.6 435.4 88.3 373.2 88.0 311.0 87.8 248.8 87.5 186.6 87.2 124.4 86.9 62.2 86.7 0.0 86.4 Adjusted EAF POINTS 1.490 (121.2) (242.4) (363.7) 84.8 (484.9) 84.2 (606.1) 83.7 (727.3) 83.2 (848.5) (969.8) 82.1 (1,091.0) (1,212.2) 81.0	SAVINGS / (LOSS) SEQUIVALENT HEAT RATE POINTS	SAVINGS (Q.O.SS)

GENERATING PERFORMANCE INCENTIVE POINTS TABLE

APRIL 1998 - SEPTEMBER 1998

EQUIVALENT AVAILABILITY POINTS	FUEL SAVINGS / (LOSS) (\$ X 1000)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE POINTS	FUEL SAVINGS / (LOSS) (\$ X 1000)	ADJUSTED ACTUAL AVERAGE HEAT RATE
+10	874.4	72.3	+10	621.7	9436
+9	787.0	72.0	+9	559.5	9463
+8	699.5	71.6	+8	497.4	9489
+7	612.1	71.3	+7	435.2	9516
+6	524.6	70.9	+6	373.0	9543
+5	437.2	70.6	+5	310.9	9570
+4	349.8	70.2	+4	248.7	9596
+3	262.3	69.9	+3	186.5	9623
+2	174.9	69.5	+2	124.3	9650
+1	87.4	69.2	+1	62.2	9676
				0.0	9703
0	0.0	68.8	0	0.0	9778
				0.0	
-1	169.5	68.1	-1	Adjusted	9853
-2	339.0	67.4	-2 -	POINTS ANOIR _	9880
-3	508.4	66.7	-3		9906
-4	677.9	66.0	-4	(186.5)	9933
-5	847.4	65.3		(248.7)	9960
-6	EAF 1,016.9 Adjusted		-5	(310.9)	9987
-7	POINTS EAF -6.274 1,186.4 64.3	64.5	-6	(373.0)	10013
-8		63.8	-7	(435.2)	10040
	1,355.8	63.1	-8	(497.4)	10067
-9	1,525.3	62.4	-9	(559.5)	10093
-10	1,694.8	61.7	-10	(621.7)	10120
	Weighting Factor =	13.19%		Weighting Factor =	9.38%

GENERATING PERFORMANCE INCENTIVE POINTS TABLE

APRIL 1998 - SEPTEMBER 1998

EQUIVALENT AVAILABILITY POINTS	FUEL SAVINGS/(LOSS) (\$ X 1000)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE POINTS	FUEL SAVINGS / (LOSS)(\$ X 1000)	ADJUSTED ACTUAL AVERAGE HEAT RATE
+10	208.9	93.5	+10	459.4	9643
+9	188.0	93.3	+9	413.5	9654
+8	167.1	93.2	+8	367.5	9666
+7	146.2	93.0	+7	321.6	9677
+6	125.3	92.9	+6	275.6	9688
+5	104.5	92.7	+5	229.7	9700
+4	83.6	92.5	+4	183.8	9711
+3	62.7	92.4	+3	137.8	9722
+2	41.8	9:2.2	+2	91.9	9733
+1	20.9	9:2.1	+1	45.9	9745
				0.0 Adjusted	9756
0	0.0	91.9	0	AHR Actual POINTS 0.0 ANOHR	9831
				0.000 9885	9906
-1	42.4	91.6	-1	(45.9)	9917
-2	84.8	91.3	-2	(91.9)	9929
-3	127.3	90.9	-3	(137.8)	9940
-4	169.7	90.6	-4	(183.8)	9951
-5	212.1	90.3	-5	(229.7)	9963
-6	254.5	90.0	-6	(275.6)	9974
-7	296.9	89.7	-7	(321.6)	9985
-8	EAF 339.4 Adjusted EAF	89.3	-8	(367.5)	9996
-9	POINTS -8.310 381.8 EAF 89.2	89.0	-9	(413.5)	10008
-10	424.2	88.7	-10	(459.4)	10019
	Weighting Factor =	3.15%		Weighting Factor =	6.92%

COMPARISON OF GPIF TARGETS VS. PRIOR PERIOD ACTUAL PERFORMANCE

APRIL 1998 - SEPTEMBER 1998

AVAILABILITY

PLANT/UNIT	TARGET WEIGHTING	NORMALIZED WEIGHTING	APF	GET PERIOD R 98 - SEP 98)		PERFORMA 98 - SEP 98	
TLANTONII	FACTOR	FACTOR	POF	EUOF	EUOR	POF	EUOF	EUOR
BIG BEND 1	10.92%	23.3	7.7	14.0	15.2	0.0	14.5	14.5
BIG BEND 2	9.38%	20.0	0.0	13.6	13.6	20.8	11.4	14.4
BIG BEND 3	13.19%	28.1	18.0	13.2	16.1	9.0	19.6	21.5
BIG BEND 4	3.15%	6.7	0.0	8.1	8.1	0.0	10.7	10.7
GANNON 5	5.22%	11.1	0.0	15.2	15.2	0.0	15.7	15.7
GANNON 6	5,06%	10.8	7.7	11.3	12.2	0.0	18.0	18.0
	46.92%	100.0					ē	
GPIF SYSTEM WEIG	GHTED AVERAGE		7.7	13.1	14.3	6.7	15.6	16.7
GPIF SYSTEM WEIG	GHTED EQUIVALENT AV	AILABILITY	No.	79.2			77.7	
			5 PERIO POF	D AVERAGE EUOF	EUOR	5 PERI	OD AVERA EAF	GE
		N N N N N N N N N N N N N N N N N N N	6.9	13.4	14.4		79.7	

AVERAGE NET OPERATING HEAT RATE (Btu/kwh)

PLANT/UNIT_	TARGET WEIGHTING FACTOR	NORMALIZED WEIGHTING FACTOR	HEAT RATE TARGET	ACTUAL HEAT RATE APR 98 - SEP 98	
GANNON 5	7.58%	14.3	10377	10475	9
GANNON 6	10.09%	19.0	10527	10540	
BIG BEND 1	11.15%	21.0	10267	10225	
BIG BEND 2	7.96%	15.0	10225	10101	
BIG BEND 3	9.38%	17.7	9778	10228	
BIG BEND 4	6.92%	13.0	9831	10074	
	53.08%	100.0			
GPIF SYSTEM WEIGH	ITED AVERAGE HEAT	RATE (Btu/kwh)	10183	10283	

TAMPA ELECTRIC COMPANY GENERATING PERFORMANCE INCENTIVE POINTS CALCULATION APRIL 1998 - SEPTEMBER 1998

Points are calculated according to the formula:

GPIP =
$$\leq \frac{n}{1}$$
 [(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/PENALTY 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 = (\$229,924)