FPSC-RECORDS/REPORTING

1	BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION	
2	PREPARED DIRECT TESTIMONY	
3	OF	
4	GEORGE A. KESELOWSKY	
5		
6	Will you please state your name, business address, as	nd
7	employer?	
8		
9	. My name is George A. Keselowsky and my business address	s
10	Post Office Box 111, Tampa, Florida 33601. I am employe	èd
11	by Tampa Electric Company.	
12		
13	Please furnish us with a brief outline of your educations	11
14	background and business experience.	
15		
16	. I graduated in 1972 from the University of South Florid	ia
CK17	with a Bachelor of Science Degree in Mechanica	ü
F418	Engineering. I have been employed by Tampa Electri	.c
19	Company in various engineering positions since that time	
MI) 20	My current position is that of Senior Consulting Engineer	r
TR 21	-Production Engineering	
AG 22		
3 23		
PC24		
EC25		
VAS	DOCUMENT NUMBER-DATE	
)TI-	12357 NOV 19 8	

What are your current responsibilities? 2 responsible for testing and reporting 3 A. performance, and the compilation and reporting of generation statistics. 5 6 What is the purpose of your testimony? 7 Q. 8 My testimony presents the actual performance results from 9 A. unit equivalent availability and station heat rate used to 10 determine the Generating Performance Incentive Factor 11 (GPIF) for the period April 1996 through September 1996. 12 13 I will also compare these results to the targets established prior to the beginning of the period. 14 15 Have you prepared an exhibit with the results for this six 16 Q. 17 month period? 18 19 Under my direction and supervision an exhibit has been prepared entitled, "Tampa Electric Company, April 1996 20 - September 1996, Generating Performance Incentive Factor 21 Results" consisting of 28 pages that was filed with this 22 testimony (Have identified as Exhibit GAK-1). 23

24

25

Have you calculated the results of Tampa Electric Company 1 2 for its performance under the GPIF during this period? 3 Yes I have. This is shown on page 4 of my exhibit. 4 5 upon - 1.355 GPIF points, the result is a penalty amount of \$298,369 for the period. 6 7 Please proceed with your review of the actual results for 8 Q. the April 1996 - September 1996 period. 9 10 On page 3 of my exhibit, the actual average common equity 11 for the period is shown on line 8 as \$1,090,873,671. 12 produces the maximum penalty or reward figure of \$2,201,985 13 as shown on line 15, page 3, and also page 2 of my exhibit. 14 15 Would you please explain how you arrived at the actual 16 Q. equivalent availability results for the six units included 17 within the GPIF? 18 19 20 Yes I will. Operating data on each of our operating units is filed monthly with the Florida Public Service Commission 21 on the Actual Unit Performance data form. Additionally, 22 outage information is reported to the Commission on a 23

provides the basis for the GPIF.

24

25

monthly basis. A summary of this data for the six months

1 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 1996 period. Due to a revision of the outage schedule 206.6 planned outage hours were accomplished within the Summer 1996 period. Consequently, the actual equivalent availability of 83.1% is adjusted to 87.2%, as shown on page 7 of my exhibit.

#### Gannon Unit No. 6

On this unit, 1,199 planned outage hours were originally scheduled to fall within the Summer 1996 period. The outage schedule was revised such that the entire outage fell within the period and actual planned outage activities

required 1319.5 hours. Consequently, the actual equivalent availability of 64.8% is adjusted to 67.3%, as shown on page 8 of my exhibit.

#### Big Bend Unit No. 1

This unit was not scheduled to have a planned outage during the Summer 1996 period and did not in fact have one. Consequently, the actual equivalent availability of 84.8% requires no adjustment as shown on page 9 of my exhibit.

#### Big Bend Unit No. 2

This unit was not scheduled to have a planned outage during the Summer 1996 period and did not in fact have one. Consequently, the actual equivalent availability of 87.2% required 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 1996 period. Due to a revision of the outage schedule, an outage was moved such that the last 28.8 planned outage hours fell within the period. Consequently, the actual equivalent availability of 83.7% is adjusted to 84.2% as shown on page 11 of my exhibit.

#### Big Bend Unit No. 4

This unit was not scheduled to have a planned outage during the Summer 1996 period and did not in fact have one. Consequently, the actual equivalent availability of 92.7% 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?

10 A. In order to assure compatability of data, Big Bend Unit 3

11 heat rates have been calculated in the standard fashion,

12 without scrubber power. This methodology has been reviewed

13 and approved by the PSC staff, to be employed until there

14 is sufficient operational history with the scrubber to meet

15 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?

21 A. Yes.

DOCKET NO. 960001 - EI
TAMPA ELECTRIC COMPANY
(GAK -1)
PAGE 1 OF 28

# TAMPA ELECTRIC COMPANY APRIL 1996 - SEPTEMBER 1996 GENERATING PERFORMANCE INCENTIVE FACTOR RESULTS TABLE OF CONTENTS

	PAGE
SCHEDULE	2
TABLE ACTUAL	3
CALCULATIONS OF MAXIMUM ALLOWED INCENTIVE	4
OF SYSTEM ACTUAL GPIF POINTS	5
GPIF UNIT PERFORMANCE SUMMARY, EQUIVALENT AVAILABILITY	5
GPIF UNIT PERFORMANCE SUMMARY, AVERAGE NET OPERATING HEAT RATE	6
GPIF UNIT PERFORMANCE DATA	7 - 18
GPIF UNIT PERFORMANCE ADJUSTMENT COMPUTATIONS  GPIF (EAF & HEAT RATE ) ADJUSTMENT COMPUTATIONS	20
PLANNED OUTAGE SCHEDULE - ACTUAL	21 - 26
CRITICAL PATH DIAGRAM  GENERATING PERFORMANCE INCENTIVE POINTS TABLES (ACTUAL)	27
COVE TARGET VS ACTUAL PERFORMAN	28
COMPARISON OF GPIF TARGET  GENERATING PERFORMANCE INCENTIVE POINTS CALCULATIONS	

12357 NOV 19 %

FPSC-RECORDS/REPORTING

### TAMPA ELECTRIC COMPANY GENERATING PERFORMANCE INCENTIVE POINTS TABLE REWARD / PENALTY TABLE - ACTUAL APRIL 1996 - SEPTEMBER 1996

GENERATING PERFORMANCE INCENTIVE POINTS (GPIP)	FUEL SAVINGS / (LOSS) (\$000)		GENERATING PERFORMANCE INCENTIVE FACTOR (\$000)
+10	4,631.7		2,202.0
+9	4,168.5		1,987.8
+8	3,705.4		1,761.6
+7	3,242.2		1,541.4
+6	2,779.0		1,321.2
+5	2,315.9		1,101.0
+4	1,852.7		880.8
+3	1,389.5		660.5
+2	926.3		440.4
+1	463.2		220.2
0	0		0.0
-1	GPIP (696.8)	REWARD DOLLARS	(220.2)
-2	Points -1.355 (1,393.6)	(\$298,369)	(440.4)
-3	(2,090.4)		(660.6)
4	(2,787.2)		(880.8)
-5	(3,484.0)		(1,101.0)
-6	(4,180.7)		(1,321.2)
-7	(4,877.5)		(1,541.4)
-8	(5,574.3)		(1,761.6)
-9	(6,271.1)		(1,981.8)
-10	(6,967.9)		(2,202.0)

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

#### APRIL 1996 - SEPTEMBER 1996

		\$1,066,157,188
Month of April	1996	\$1,045,228,904
Month of May	1996	\$1,076,919,141
Month of June	1996	\$1,090,563,539
Month of July	1996	\$1,082,672,383
Month of August	1996	\$1,128,713,815
Month of September	1996	\$1,145,869,725
(summation of line 1 throu	igh line 7 divided by 7)	\$1,090,873,671
25 Basis points		0.0025
Revenue expansion factor		61.3738%
		\$2,221,782
Jurisdictional Sales		7880384 MWH
Total Sales		7951232 MWH
		99.11%
Maximum Allowed Jurisd Dollars (Line 11 times line 14)	ictional Incentive	\$2,201,985
	end of month common equation of April Month of May Month of June Month of July Month of August Month of September (summation of line 1 through the september) 25 Basis points Revenue expansion factor Maximum allowed incentif (Line 8 times line 9 divided times 0.5) Jurisdictional Sales Total Sales Jurisdictional Seperation (Line 12 divided by line 13 Maximum Allowed Jurisdictionals	Month of June 1996  Month of July 1996  Month of August 1996  Month of September 1996  (summation of line 1 through line 7 divided by 7)  25 Basis points  Revenue expansion factor  Maximum allowed incentive Dollars (Line 8 times line 9 divided by line 10 times 0.5)  Jurisdictional Sales  Total Sales  Jurisdictional Seperation Factor (Line 12 divided by line 13)  Maximum Allowed Jurisdictional Incentive Dollars

## TAMPA ELECTRIC COMPANY CALCULATION OF SYSTEM GPIF POINTS APRIL 1996 - SEPTEMBER 1996 ACTUAL

PLANT/UNIT	ADJ A	MO CTUAL RMANCE	WEIGHTING FACTOR %	UNIT POINTS	WEIGHTED UNIT POINTS
GANNON 5	87.2%	EAF	2.95%	-8.340	-0.246
GANNON 6	67.3%	EAF	5.38%	8.735	0.470
BIG BEND 1	84.8%	EAF	10.02%	-3.605	-0.361
BIG BEND 2	87.2%	EAF	10.84%	4.622	0,501
BIG BEND 3	84.2%	EAF	10.27%	-5.560	-0.571
BIG BEND 4	92.7%	EAF	8.47%	10.000	0.847
GANNON 5	10636	ANOHR	4.50%	-10.000	-0.450
GANNON 6	11025	ANOHR	8.93%	-10.00C	-0.893
BIG BEND I	10104	ANOHR	9.24%	0.000	0.000
BIG BEND 2	10144	ANOHR	9.80%	-2.917	-0.286
BIG BEND 3	9883	ANOHR	10.63%	-3.444	-0.366
BIG BEND 4	10107	ANOHR	8.97%	0.000	0.000
					1 266

-1.355

GPIF REWARD

(\$298,369)

#### GPIF TARGET AND RANGE SUMMARY

#### APRIL 1996 - SEPTEMBER 1996

#### EQUIVALENT AVAILABILITY

PLANT/UNIT	WEIGHTING FACTOR (%)	EAF TARGET (%)	EAF MAX. (%)	RANGE MIN. (%)	MAX. FUEL SAVINGS (\$800)	MAX. FUEL LOSS (\$000)	EAF ADJUSTED ACTUAL %	ACTUAL FUEL SAVINGS/ LOSS (\$000)
GANNON 5	2.95%	90.4	92.3	86.6	136.6	(261.3)	87.2%	(113.9)
GANNON 6	5.38%	64.8	67.7	58.9	249.2	(628.6)	67.3%	217.7
BIG BEND I	10.02%	86.7	89.4	81.4	464.0	(864.7)	84.8%	(167.3)
BIG BEND 2	10.84%	85.9	88.7	80.3	502.0	(986.5)	87.2%	232.0
BIG BEND 3	10.27%	87.1	89.7	81.9	475.8	(1,094.5)	84.2%	(608.6)
BIG BEND 4	8.47%	89.7	91.8	85.6	392.4	(720.6)	92.7%	392.4
GPIF SYSTEM	47,93%				2,220.0	(4,556.2)		

#### AVERAGE NET OPERATING HEAT RATE FOR GPIF COAL GENERATING UNITS

PLANT/UNIT	WEIGHTING FACTOR (%)	ANOHR Btu/kwh	TARGET NOF	ANOHR T RANG MIN.		MAX. FUEL SAVINGS (\$000)	MAX. FUEL LOSS (\$000)	ACTUAL ADJUSTED ANOHR	ACTUAL FUEL SAVINGS/ LOSS (\$000)
GANNON 5	4.50%	10343	78.7	10143	10543	208.3	(208.3)	10636	(208.3)
GANNON 6	8.93%	10443	77.9	10101	10785	413.4	(413.4)	11025	(413.4)
BIG BEND 1	9.24%	10077	91.9	9849	10305	427.9	(427.9)	10104	0.0
BIG BEND 2	9.80%	10020	92.5	9777	10263	453.7	(453.7)	10144	(132.3)
BIG BEND 3	10.63%	9745	94.8	9491	10001	492.2	(492.2)	9883	(169.5)
BIG BEND 4	8.97%	10149	87.5	9949	10349	416.2	(416.2)	10107	0.0
GPIF SYSTEM	52.07%					2,411.7	(2,411.7)		

#### TAMPA ELECTRIC COMPANY ACTUAL UNIT PERFORMANCE DATA APRIL 1996 - SEPTEMBER 1996

PLANT / UNIT	ACTUAL EAF %	ADJUSTMENTS (1) EAF %	EAF ADJUSTED ACTUAL %
GANNON 5	83.1	4.1	87.2
GANNON 6	64.8	2.5	67.3
BIG BEND I	84.8	0.0	84.8
BIG BEND 2	87.2	0.0	87.2
BIG BEND 3	83.7	0.5	84.2
BIG BEND 4	92.7	0.0	92.7
PLANT / UNIT_	ACTUAL ANOHR Btu/kwh	ADJUSTMENTS (1) TO ANOHR Btu/kwh	ANOHR ADJUSTED ACTUAL Btu/kwh
GANNON 5	10620	16	10636
GANNON 6	10600	425	11025
BIG BEND 1	10233	-129	10104
BIG BEND 2	10260	-116	10144
BIG BEND 3	10026	-143	9883
BIG BEND 4	10063	44	:0107

<sup>(1)</sup> Documentation of adjustments to Actual EAF on pages 7 - 12

<sup>(1)</sup> Documentation of adjustments to Actual ANOHR on pages 13 - 18

### TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE GANNON UNIT NO. 5 APRIL 1996 - SEPTEMBER 1996

#### WEIGHTING FACTOR =

2.95%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
P.H.	4391.0	4391.0	4351.0
E.A.F.	90.4	83.1	87.2
P.O.H.	0.0	206.6	0.0
F.O.H. + E.F.O.H	372.0	483.0	506.8
M.O.H. + E.M.O.H	48.0	51.4	53.9
F.O.F.	0.0	4.7	0.0
E.F.O.F.	8.5	11.0	11.5
E.M.O.F.	1.1	1.2	1.2

#### -8.340 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 1996 - SEPTEMBER 1996

WEIGHTING FACTOR -

5.38%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
P.H.	4391.0	4391.0	4391.0
E.A.F.	64.8	64.8	67.3
P.O.H.	1199.0	1319.5	1199.0
F.O.H. + E.F.O.H	255.0	86.1	89.5
M.O.H. + E.M.O.H	93.0	140.4	145.9
P.O.F.	27.3	30.1	27.3
E.F.O.F.	5.8	2.0	2.0
Z.M.O.F.	2.1	3.2	3.3

#### 8.735 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

#### TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE **BIG BEND UNIT NO. 1** APRIL 1996 - SEPTEMBER 1996

WEIGHTING FACTOR = 10.02%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
P.H.	4391.0	4391.0	4351.0
E.A.F.	86.7	94.8	84.8
P.O.H.	0.0	0.0	0.0
F.O.H. + E.F.O.H	408.0	502.8	502.8
M.O.H. + E.M.O.H	177.0	165.1	165.1
P.O.F.	0.0	0.0	0.0
E.F.O.F.	9.3	11.5	11.5
E.M.O.F.	4.0	3.8	3.8

#### -3.605 E. A. POINTS

#### ADJUSTMENTS TO E.A.F.

84.8

PH - PERIOD HOURS

EAF - EQUIVALENT AVAILABILITY FACTOR

POH - PLANNED OUTAGE HOURS

FOH - FORCED OUTAGE HOURS

MOH - MAINTENANCE OUTAGE HOURS

100.0 - 15.2 --

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 1996 - SEPTEMBER 1996

WEIGHTING FACTOR =

10.84%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE	
P.H.	4391.0	4391.0	4391.0	
E.A.F.	85.9	87.2	87.2	
P.O.H.	0.0	0.0	0.0	
F.O.H. + E.F.O.H	495.0	233.2	233.2	
M.O.H. + E.M.O.H	123.0	329.1	329.1	
P.O.F.	0.0	0.0	0.0	
E.F.O.F.	11.3	5.3	5.3	
E.M.O.F.	2.8	7.5	7.5	

#### 4.622 E. A. POINTS

#### ADJUSTMENTS TO E.A.F.

100.0 -12.8 - 87.2

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. 3 APRIL 1996 - SEPTEMBER 1996

WEIGHTING FACTOR =

10.27%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
P.H.	4391.0	4391.0	4391.0
E.A.F.	87.1	83.7	84.2
P.O.H.	0.0	28.8	0.0
F.O.H. + E.F.O.H	390.0	446.5	449.4
M.O.H. + E.M.O.H	177.0	242.4	244.9
P.O.F.	0.0	0.7	0.0
E.F.O.F.	8.9	10.2	10.2
E.M.O.F.	4.0	5.5	5.6

#### -5.560 E. A. POINTS

#### ADJUSTMENTS TO E.A.F.

100.0 - 15.8 - 84.2

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. 4 APRIL 1996 - SEPTEMBER 1996

WEIGHTING FACTOR =

8.47%

	6 MO. TARGET	6 MO. ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
P.H.	4391.0	4391.0	4391.0
E.A.F.	89.7	92.7	92.7
P.O.H.	0.0	0.0	0.0
F.O.H. + E.F.O.H	225.0	114.6	114.6
M.O.H. + E.M.O.H	228.0	205.9	205.9
P.O.F.	0.0	0.0	6.0
E.F.O.F.	5.1	2.6	2.6
E.M.O.F.	5.2	4.7	4.7
	10.000 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

EUCH - 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 1996 - SEPTEMBER 1996

WEIGHTING FACTOR = 4.50%

	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwb)	10343	10620
STA. NET GEN. (GWH)	746.2	740.6
OPER. Btu (10^9 btu)	7718.206	7865.420
NET OUTPUT FACTOR	78.7	79.8

-10.000 HEAT RATE POINTS

#### ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURRENT EQUATION NOF(-14.2064) + 11461.1 = ANOHR

79.8 (-14.2064) + 11461.1 = 10327

10620 - 10327 = 293

10343 + 293 = 10636

#### TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE **GANNON UNIT NO. 6** HEAT RATE DATA APRIL 1996 - SEPTEMBER 1996

WEIGHTING FACTOR = 8.93%

	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwh)	10443	10600
STA. NET GEN. (GWH)	857.8	931.9
OPER. Btu (10^9 btu)	8957.962	9877.885
NET OUTPUT FACTOR	77.9	87.8

-10.000 HEAT RATE POINTS

#### ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURRENT EQUATION NOF(-2.5690) + 10243.3 = ANOHR

87.8 (-2.5690) + 10243.3 = 10018

10600 -10018 = 582

10443 + 11025 582 =

#### TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE BIG BEND UNIT NO. 1 HEAT RATE DATA APRIL 1996 - SEPTEMBER 1996

WEIGHTING FACTOR = 9.24%

	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwh)	10077	10233
STA. NET GEN. (GWH)	1550.5	1400.7
OPER. Btu (10^9 btu)	15624.674	14333.788
NET OUTPUT FACTOR	91.9	80.6

#### 0.000 HEAT RATE POINTS

#### ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPAPISON

CURRENT EQUATION NOF(-11.4243) + 11127.0 = ANOHR 80.6 (-11.4243) + 11127.0 = 10206 10233 - 10206 = 27 10077 + 27 = 10104

#### TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE BIG BEND UNIT NO. 2 HEAT RATE DATA APRIL 1996 - SEPTEMBER 1996

#### WEIGHTING FACTOR = 9.80%

	6 MO. TARGET	6 MO ACTUAL PERFORMANCE	
ANOHR (Btu/kwh)	10020	10260	
STA. NET GEN. (GWH)	1540.4	1462.7	
OPER. Btu (10^9 btu)	15434.591	15007.543	
NET OUTPUT FACTOR	92.5	84.5	

#### -2.917 HEAT RATE POINTS

#### ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURRENT EQUATION NOF(-8.2016) + 10828.7 = ANOHR

84.5 (-8.2016) + 10828.7 = 10136

10260 - 10136 = 124

10020 + 124 = 10144

#### TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE BIG BEND UNIT NO. 3 HEAT RATE DATA APRIL 1996 - SEPTEMBER 1996

WEIGHTING FACTOR = 10.63%

	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwh)	9746	10026
STA. NET GEN. (GWH)	1628.4	1486 0
OPER. Btu (10^9 btu)	15870.061	14898.700
NET OUTPUT FACTOR	94.8	85.4

-3.444 HEAT RATE POINTS

#### ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURRENT EQUATION NOF(-15.0819) + 11176.5 = ANOHR 85.4 (-15.0819) + 11176.5 = 9889 10026 - 9889 = 137

9746 + 137 = 9883

#### TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE BIG BEND UNIT NO. 4 HEAT RATE DATA APRIL 1996 - SEPTEMBER 1996

WEIGHTING FACTOR = 8.97%

	6 MO. TARGET	6 MO. TARGET	6 MO ACTUAL PERFORMANCE
ANOHR (Btu/kwb)	10149	10149	10063
STA. NET GEN. (GWH)	1577.2	1577.2	1691.9
OPER. Btu (10^9 btu)	16007.818	16007.818	17026,380
NET OUTPUT FACTOR	87.5	87.5	90.0

0.000 HEAT RATE POINTS

#### ADJUSTMENTS TO ACTUAL HEAT RATE FOR COMPARISON

CURRENT EQUATION NOF(-12.7990) + 11257.0 = ANOHR

90.0 (-12.7990) + 11257.0 10105 10105 = 10063 --42 10149 + -42 = 10107

#### GPIF PLANNED OUTAGE SCHEDULE - ACTUAL

#### APRIL 1996 - SEPTEMBER 1996

STATION/UNIT	PLANNED OUTAGE DATES	OUTAGE REASON
*BIG BEND 3	MAR 14 - APR 2	ANNUAL MAINTENANCE OUTAGE
GANNON 5	APR 29 - MAY 5	FUEL SYSTEM CLEAN-UP OUTAGE
** GANNON 6	APR 2 - MAY 27	REPL. COLD GAS DUCT PRECIP. PLATE REPL. LP TURBINE MODIFICATION BFPT INSPECTION

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

<sup>\*</sup>Start / End dates outside of GPIF period.

<sup>\*\*</sup>Outage is less than two weeks in duration and e CPM was not included for this unit.

TAMPA ELECTRIC COMPANY GANNON UNIT NUMBER 6 PLANNED OUTAGE 1996 ACTUAL CPM 11/12/96

#### GENERATING PERFORMANCE INCENTIVE POINTS TABLE

#### APRIL 1996 - SEPTEMBER 1996

#### GANNON 5

EQUIVALENT AVAILABILITY PORNTE	EAVINGE/(LOSS) (S X 1000)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE PODITS	BAYINGS / (LOSS) (S X 1000)	ADJUSTED ACTUAL AVERAGE HEAT BATE
+10	136.6	92.3	+10	200.3	10143
+9	122.9	92.1	+9	167.5	10155
+8	109.3	91.9	+6	166.6	10168
+7	95.6	91.7	+7	145.8	10181
+6	£2.0	91.5	+6	125.0	10193
+5	68.3	91.4	+5	104.2	10206
+4	54.6	91.2	+4	83.3	10218
+3	41.0	91.0	+3	62.5	10231
+2	27.3	90.8	+2	41.7	10243
+1	13.7	90.6	+1	20.8	10256
				0.0	10268
0	0.0	90.4	0	0.0	10343
				0.0	10418
-1	(26.1)	90.0	-1	(20.11)	10431
-2	(52.3)	89.6	-2	(41.7)	10443
-3	(78.4)	89.3	-3	(62.5)	10456
-4	(104.5)	88.9	-4	(E3.3)	10468
-5	(130.7)	88.5	-5	(104.2)	10481
-6	(156.8)	88.1	-6	(125.0)	10493
-7	(182.9)	87.7	-7	(145.8)	10506
	EAF (209.0) Adjusted	87.4	4	(166.6)	10518
	DINTS EAF 8.340 (235.2) E7.3%	E7.0	-9 press	(187.5)	10531
-10	(261.3)	96.6	-10 P	AHR DENTS (208.3) Actual Actual ANGEIR 18.889	10543
	Weighting Factor =	2.95%		Weighting Factor =	4.50%

#### GENERATING PERFORMANCE INCENTIVE POINTS TABLE

#### APRIL 1996 - SEPTEMBER 1996

#### GANNON 6

EQUIVALENT AVAILABILITY POINTS	SAVINGS / (LOSE) (5 X 1000)	ADJUSTED ACTUAL BOATVALENT AVAILABILITY	AVERAGE HEAT RATE POINTS	FUEL SAVINGS / (LOSS) (S.X.1001)	ADJUSTED ACTUAL A VERAGE HIXAT RATE
+10	136.6	67.7	+10	413.4	10101
+9	EAF 122.9 Adjuste	67.4	+9	372.1	10128
	0INTS EAF 8.735 109.3 67.3	67.1	+6	330.7	10154
+7	95.6	66.8	+7	289.4	10181
+6	82.0	66.5	+6	248.0	10206
+5	68.3	66.3	+5	206.7	10235
+4	54.6	66.0	+4	163.4	10261
+3	41.0	65.7	+3	124.0	1028*
+2	27.3	65,4	+2	82.7	10315
+1	13.7	65.1	+1	41.3	10341
				0.0	10368
0	0.0	64.8	0	0.0	10443
				0.0	10518
-1	(26.1)	64.2	-1	(41.3)	10521
-2	(52.3)	63.6	-2	(82.7)	10523
-3	(7#.4)	63.0	-3	(124.0)	10526
-4	(101.5)	62.4	4	(165.4)	10528
-5	(130.7)	61.9	-5	(206.7)	10531
-6	(156.8)	61.3	-6	(248.0)	10533
-7	(182.9)	60.7	-7	(289.4)	10536
-8	(209 0)	60.1	4	(330.7)	10538
-9	(235.2)	59.5	-9	(372.1)	10541
-10	(261.3)	58.9	-10	AER FORVES -38.000  (413.4) Adjusted Actual ANCER 11025	10543
	Weighting Factor =	5.38%		Weighting Factor -	8.93%

#### GENERATING PERFORMANCE INCENTIVE POINTS TABLE

#### APRIL 1996 - SEPTEMBER 1996

EQUIVALENT AVAILABILITY POINTS	FUEL SAVINGS ((LOSS) (S.X.1000)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERACE HEAT RATE POINTS	PUBL BAVENOS / (LOSS) (S X 1990)	ADJUSTED ACTUAL AVERAGE HEAT RATE
+10	464.0	89.4	+10	427.9	9649
+9	417.6	89.1	+9	385.1	9864
+8	371.2	22.9	+8	342.3	9880
+7	324.8	88.6	+7	299.5	9095
+6	278.4	113	+6	256.7	9910
+5	232.0	88.1	+5	214.0	9926
+4	185.6	87.8	+4	171.2	9941
+3	139.2	87.5	+3	128.4	9956
+2	92 R	87.2	+2	85.6	9971
+1	46.4	87.0	+1	42.8	9967
				0.0	10002
0	0.0	86.7	0	0.0 Adjusted	10077
			4-	POINTS 0.0 ANOHER	10152
-1	86.5	86.2	-1	(42.8)	10167
-2	172.9	85.6	-2	(85.6)	10183
-3	EAF 250.4 Adjusted	85.1	-3	(128.4)	10194
	OINTS 3119 EAF	84.6	4	(171.2)	10213
-5	432.4	84.1	-5	(214.0)	10229
-6	51× N	83.5	-6	(256.7)	10244
-7	605.3	83.0	-7	(299.5)	10259
-8	691.8	82.5	4	(342.3)	10274
-9	774.2	81.9	-9	(385.1)	10250
-10	8/17	\$1.4	-10	(427.9)	10305
	Weightime Factor =	10.02%		Weighting Factor =	9.24%

#### GENERATING PERFORMANCE INCENTIVE POINTS TABLE

#### APRIL 1996 - SEPTEMBER 1996

EQUIVALENT AVAILABILITY POINTS	EAVINGS / (LOSS)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE POORTS	FUEL BAVINGS / (LOSE) (S.X.1600)	ADJUSTED ACTUAL AVERAGE HEAT RATE
+10	502.0	88.7	+10	453.7	9777
+9	451.8	88.4	+9	408.3	9794
+8	401.6	88.1	+8	363.0	9611
+7	351.4	17.9	+7	317.6	9827
+6	301.2	87.6	+6	272.2	9644
	EAF 251.0 Adjuster	17.3	+5	226.9	9961
	OINTS 200 8 EAF 4.622 200 8 87.2	87.0	+4	181.5	9678
+3	1616	86.7	+3	136.1	9895
+2	Div. 4	86.5	+2	90.7	9911
+1	513	86.2	+1	45.4	9928
				0.0	9945
0	0.6	85.9	0	0.0	10020
				0.0	10095
-1	(9+ 7)	\$5.3	-1	(45.4)	10112
-2	(197.3)	84.8	-2	AHR (90.7) Adjusted	10129
-3	Geo. a)	84.2	., ◆	POINTS Actual ANOER ANOER	10145
4	(Y' ' ' ')	83.7	-4	(1\$1.5)	10162
-5	(4****3)	43.1	-5	(226.9)	10179
-6	(5******)	82.5	-6	(272.2)	10196
-7	(60× 6)	82.0	-7	(317.6)	10213
-4	(7****)	81.4	-4	(363.0)	10229
-9	(Rv * '9)	80.9	-9	(40E.3)	10246
-10	(9+- 4)	80.3	-10	(453.7)	10263
	Weight Factor =	10.84%		Weighting Factor =	9.80%

#### GENERATING PERFORMANCE INCENTIVE POINTS TABLE

#### APRIL 1996 - SEPTEMBER 1996

EQUIVALENT AVAILABILITY POINTS	FUEL SAVINGS / (LOSS) (S X 1000)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE POINTS	FUEL SAVINGS / (LOSS) (S.X.1000)	ADRUSTED ACTUAL AVERAGE HEAT RATE
+10	475.8	89.7	+10	492.2	9491
+9	428.2	19.4	+9	443.0	9509
+8	380.6	89.2	+8	393.8	9527
+7	333.1	88.9	+7	344.5	9545
+6	285.5	88.7	+6	295.3	9563
+5	237.9	EX.4	+5	246.1	9581
+4	190.3	88.1	+4	196.9	9599
+3	142.7	87.9	+3	147.7	9617
+2	95.2	87.6	+2	98.4	9635
+1	47.6	87.4	+1	49.2	9653
				0.0	9671
0	0.0	87.1	0	0.0	9746
				0.0	9821
-1	109.5	86.6	-1	(49.2)	9639
-2	218.9	86.1	-2	(98.4)	9857
-3	328.4	85.5	·) [	AHR (147.7) Adjusted	9875
-4	437.8	#5.0	- 1	POINTS Actual - ANOHR ANOHR	9893
	EAF 547.3 Adjusted	84.5	-5	(246.1) 9883	9911
	DINTS 5.560 656.7 EAF 84.1	84.0	-6	(295.3)	9929
-7	766.2	83.5	-7	(344.5)	9947
-16	875.6	F2.9	-8	(393.8)	9965
-9	985.1	H2.4	-9	(443.0)	9983
-10	1,094.5	B1.9	-10	(492.2)	10001
	Weighting Factor =	10.27%		Weighting Factor =	10.63%

#### GENERATING PERFORMANCE INCENTIVE POINTS TABLE

#### APRIL 1995 - SEPTEMBER 1996

EQUIVALENT AVAILABILITY PODYTS	FUEL SAVINGS / (LOSS) (S X 1000)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE POINTS	FUEL EAVINGS / (LOSS) (\$ X 1000)	ADJUSTED ACTUAL AVERAGE HEAT RATE
+10	POINTS 392.4 EAF	91.8	+10	416.2	9949
+9	10,600 92.7	91.6	+9	374.6	9962
+ 8	313.9	91.4	+6	333.0	9974
+7	274.7	91.2	+7	291.3	9987
+6	235.4	91.0	+6	249.7	9999
+5	196.2	90.8	+5	208.1	10012
+4	157.0	90.5	+4	166.5	10024
+3	117.7	90.3	+3	124.9	10037
+2	78.5	90.1	+2	E3.2	10049
+1	39.2	89.9	+1	41.6	10062
			- P	0.0 Asjusted	10074
0	6.0	89.7		POINTS 0.0 ANOHR	10149
				0.00 10197	10224
-1	72.1	89.3	-1	(41.6)	10237
-2	144.1	88.9	-2	(83.2)	10249
-3	216.2	88.5	-3	(124.9)	10262
4	288.2	88.1	-4	(166.5)	10274
-5	360.3	87.7	-5	(208.1)	10287
-6	432.4	87.2	-6	(249.7)	10299
-7	504.4	86.8	-7	(291.3)	10312
-8	576.5	86.4	-4	(333.0)	10324
-9	648.5	86.0	.9	(374.6)	10337
-10	720.6	#5.6	-10	(416.2)	10349
	Weighting Factor =	8.47%		Weighting Factor =	8.97%

#### COMPARISON OF GPIF TARGETS VS. PRIOR PERIOD ACTUAL PERFORMANCE

#### APRIL 1996 - SEPTEMBER 1996

#### AVAILABILITY

	TARGET WEIGHTING	NORMALIZED WEIGHTING	1000	GET PERIOD R 96 - SEP 96			PERFORMA 96 - SEP 96	
PLANT/UNIT	FACTOR	FACTOR	POF	EUOF	EUOR	POF	EUOF	EUOR
BIG BEND 1	10.02%	20.9	0.0	13.3	13.3	0.0	15.2	15.2
BIG BEND 2	10.84%	22.6	0.0	14.1	14.1	0.0	12.8	12.8
BIG BEND 3	10.27%	21.4	0.0	12.9	12.9	0.7	15.7	15.8
BIG BEND 4	8.47%	17.7	0.0	10.3	10.3	0.0	7.3	7.3
GANNON 5	2.95%	6.2	0.0	9.6	9.6	0.0	12.2	12.2
GANNON 6	5,38%	11.2	27.3	7.9	10.9	30.1	5.2	7.4
	47.93%	100.0						
GPIF SYSTEM W	E:GHTED AVERAGE		3.1	12.0	12.4	3.5	12.1	12.3
GPIF SYSTEM W	EIGHTED EQUIVALES	NT AVAILABILITY	-	84.9		_	84.4	
			5 PERIO POF	D AVERAGE EUOF	EUOR	5 PERI	OD AVERAG EAF	3E
			7.4	10.3	11.3		82.3	

#### AVERAGE NET OPERATING HEAT RATE (Btu/kwh)

PLANT/UNIT	TARGET WEIGHTING FACTOR	NORMALIZED WEIGHTING FACTOR	HEAT RATE TARGET	ADJUSTED ACTUAL HEAT RATE APR 96 SEP 96
GANNON 5	4.50%	8.6	10343	10636
GANNON 6	8.93%	17.1	10443	11025
BIG BEND I	9.24%	17.7	10077	10104
BIG BEND 2	9.80%	18.8	10020	10144
BIG BEND 3	10.63%	20.4	9746	9883
BIG BEND 4	8.97%	17.2	10149	10107
	52.07%	100.0		
OPIF SYSTEM WE	IGHTED AVERAGE!	HEAT RATE (Bru/kwh)	10097	10271

### TAMPA ELECTRIC COMPANY GENERATING PERFORMANCE INCENTIVE POINTS CALCULATION APRIL 1996 - SEPTEMBER 1996

Points are calculated according to the formula:

GPIP = 
$$\leq \frac{n}{1}$$
 [(a<sub>i</sub>)(EAP<sub>i</sub>) + (e<sub>i</sub>)(AHRP<sub>i</sub>)]

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 = (\$298,369)