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March 16, 2019

VIA: ELECTRONIC FILING

Mr. Adam J. Teitzman Commission Clerk Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

Re: Fuel and Purchased Power Cost Recovery Clause with Generating

Performance Incentive Factor; FPSC Docket No. 20200001-EI

Dear Mr. Teitzman:

Attached for filing in the above docket on behalf of Tampa Electric Company are the following:

- 1. Petition for Approval of Generating Performance Incentive Factor Results for the Twelve Month Period Ending December 2019.
- 2. Prepared Direct Testimony and Exhibit (JBC-1) of Jeremy B. Cain regarding Generating Performance Incentive Factor True-Up for the period January 2019 through December 2019.

Thank you for your assistance in connection with this matter.

Sincerely,

James D. Beasley

JDB/bmp Attachments

cc: All parties of record (w/attachments)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Fuel and Purchased Power)	
Cost Recovery Clause and Generating)	DOCKET NO. 20200001-EI
Performance Incentive Factor.)	FILED: March 16, 2020
)	

TAMPA ELECTRIC COMPANY'S PETITION FOR APPROVAL OF GENERATING PERFORMANCE INCENTIVE FACTOR RESULTS FOR THE TWELVE MONTH PERIOD ENDING DECEMBER 2019

Tampa Electric Company ("Tampa Electric" or "the company") hereby petitions this Commission for approval of the company's results for the twelve-month period ending December 2019. In support of this Petition, Tampa Electric states as follows:

- 1. By Order No. PSC-2018-0610-FOF-EI, dated December 26, 2018, the Commission approved Tampa Electric's GPIF targets for the period January 2019 through December 2019. The application of the GPIF formula to the performance of the company's GPIF units during that period produces a reward of \$2,858,056. The calculation of the company's GPIF reward is discussed and supported in the prepared direct testimony and exhibit of Tampa Electric witness Jeremy B. Cain, which are being filed together with this petition and incorporated herein by reference.
- 2. Tampa Electric is not aware of any disputed issues of material fact relative to the relief requested herein.

WHEREFORE, Tampa Electric respectfully requests the Commission to approve \$2,858,056 as its GPIF reward for the period ending December 2019 and authorize the inclusion of this amount in the calculation of Tampa Electric's fuel factors for the period beginning January 2021.

DATED this 16th day of March 2020.

Respectfully submitted,

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ATTORNEYS FOR TAMPA ELECTRIC COMPANY

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Petition and Testimony, filed on behalf of Tampa Electric Company, has been furnished by electronic mail on this 16th day of March 2020 to the following:

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ATTØRNEY



BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 20200001-EI
IN RE: FUEL & PURCHASED POWER COST RECOVERY
AND
CAPACITY COST RECOVERY

GENERATING PERFORMANCE INCENTIVE FACTOR

TRUE-UP

JANUARY 2019 THROUGH DECEMBER 2019

TESTIMONY AND EXHIBIT
OF
JEREMY B. CAIN

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

PREPARED DIRECT TESTIMONY

OF

JEREMY B. CAIN

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

A. My name is Jeremy Cain. My business address is 702 North Franklin Street, Tampa, Florida 33602. I am employed by Tampa Electric Company ("Tampa Electric" or "company") in the position of Manager of Asset Management, Bayside Station.

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

A. I received a Bachelor of Science degree in Mechanical Engineering in 2003 from the University of New Brunswick, Canada, and I am a registered Professional Engineer in Canada. I have accumulated 10 years of experience in the electric utility industry, with experience in the areas of unit maintenance manager, project manager for a unit upgrade, operations manager for that plant, as well as various other engineering positions, including responsibility for physical asset management. In my current role, I am responsible for

development of Tampa Electric's Asset Management programs and processes, specifically for the Bayside Power Station, and coordinating these programs with Asset Management programs throughout Energy Supply. Asset Management processes include work management processes, reliability programs, information technology, operational and capital recommendations, investment analysis, and planning maintain and improve the performance of the generating units.

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Q. What is the purpose of your testimony?

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A. The purpose of my testimony is to present Tampa Electric's actual performance results from unit equivalent availability and heat rate used to determine the Generating Performance Incentive Factor ("GPIF") for the period January 2019 through December 2019. I will also compare these results to the targets established for the period.

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Q. Have you prepared an exhibit to support your testimony?

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A. Yes, I prepared Exhibit No. JBC-1, consisting of two documents. Document No. 1, entitled "GPIF Schedules" is consistent with the GPIF Implementation Manual approved by the Commission. Document No. 2 provides the company's Actual Unit Performance Data for the 2019 period.

Which generating units on Tampa Electric's system are included Q. 1 in the determination of the GPIF? 2 3 Polk Units 1 and 2 and Bayside Units 1 and 2 are included in Α. 4 the calculation of the GPIF. 6 7 Have you calculated the results of Tampa Electric's Q. performance under the GPIF during the January 2019 through December 2019 period? 10 Yes, I have. This is shown on Document No. 1, page 4 of 22. 11 Based upon 5.274 Generating Performance Incentive Points 12 ("GPIP"), the result is a reward amount of \$2,858,056 for the 13 14 period. 15 16 Q. Please proceed with your review of the actual results for the January 2019 through December 2019 period. 17 18 On Document No. 1, page 3 of 22, the actual average common 19 Α. 20 equity for the period is shown on line 14 as \$3,015,639,377. This produces the maximum penalty or reward amount of 21 \$5,419,348 as shown on line 23. 22 23 0. Will you please explain how you arrived at the actual

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equivalent availability results for the four units included

within the GPIF?

A. Yes. Operating data for each of the units is filed monthly with the 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 12 months provides the basis for the GPIF.

Q. Are the actual equivalent availability results shown on Document No. 1, page 6 of 22, column 2, directly applicable to the GPIF table?

A. No. Adjustments to actual 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 Document No. 1, page 6 of 22, column 4. 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:

Polk Unit No. 1

On this unit, 720 planned outage hours were originally scheduled for 2019. Actual outage activities required 419 planned outage hours. Consequently, the actual equivalent

availability of 78.9 percent is adjusted to 77.0 percent, as shown on Document No. 1, page 7 of 22.

Polk Unit No. 2

On this unit, 576 planned outage hours were originally scheduled for 2019. Actual outage activities required 391.4 planned outage hours. Consequently, the actual equivalent availability of 92.6 percent is adjusted to 90.6 percent, as shown on Document No. 1, page 8 of 22.

Bayside Unit No. 1

On this unit, 624 planned outage hours were originally scheduled for 2019. Actual outage activities required 973.6 planned outage hours. Consequently, the actual equivalent availability of 85.1 percent is adjusted to 89.1 percent, as shown on Document No. 1, page 9 of 22.

Bayside Unit No. 2

On this unit, 671 planned outage hours were originally scheduled for 2019. Actual outage activities required 998 planned outage hours. Consequently, the actual equivalent availability of 85.5 percent is adjusted to 89.0 percent, as shown on Document No. 1, page 10 of 22.

Q. How did you arrive at the applicable equivalent availability

points for each unit?

A. The final adjusted equivalent availability for each unit is shown on Document No. 1, page 6 of 22, column 4. This number is incorporated in the respective GPIP table for each unit, shown on pages 17 through 20 of 22. Page 4 of 22 summarizes the weighted equivalent availability points to be awarded or penalized.

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

A. The actual heat rate and adjusted actual heat rate for Tampa Electric's four GPIF units are shown on Document No. 1, page 6 of 22. 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 22, column 9. The heat rate value is incorporated in the respective GPIP table for each unit, shown on pages 17 through 20 of 22. Page 4 of 22 summarizes the weighted heat rate points to be awarded or penalized.

Q. What is the overall GPIP for Tampa Electric for the January

2019 through December 2019 period? 1 2 This is shown on Document No. 1, page 2 of 22. The weighting 3 Α. factors shown on page 4 of 22, column 3, plus the equivalent 4 availability points and the heat rate points shown on page 4 of 22, column 4, are substituted within the equation found on 6 page 22 of 22. The resulting value of 5.274 is in the GPIF table on page 2 of 22, and the reward amount of \$2,858,056 is 8 calculated using linear interpolation. 10 Are there any other constraints set forth by the Commission 11 regarding the magnitude of incentive dollars? 12 13 14 Α. Incentive dollars are not to exceed 50 percent of fuel savings. Tampa Electric met this constraint, limiting the 15 total potential reward and penalty incentive dollars to 16 17 \$5,419,348 as shown in Document No. 1, pages 2 and 3. 18 Does this conclude your testimony? 19 Q. 20 Yes, it does. 21 Α. 22 23

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EXHIBIT NO. ___ (JBC-1)
TAMPA ELECTRIC COMPANY
DOCKET NO. 20200001-EI
GPIF 2019 FINAL TRUE-UP

GENERATING PERFORMANCE INCENTIVE FACTOR

INDEX

DOCUMENT NO.	TITLE	BATES STAMPED PAGE NO.
1	GPIF Schedules	9
2	Actual Unit Performance Data	32

EXHIBIT NO. ____ (JBC-1)
TAMPA ELECTRIC COMPANY
DOCKET NO. 20200001-EI
GPIF 2019 FINAL TRUE-UP
DOCUMENT NO. 1

EXHIBIT TO THE TESTIMONY OF JEREMY B. CAIN

DOCKET NO. 20200001-EI

TAMPA ELECTRIC COMPANY

GENERATING PERFORMANCE INCENTIVE FACTOR

JANUARY 2019 - DECEMBER 2019

TRUE-UP

DOCUMENT NO. 1
GPIF SCHEDULES

EXHIBIT NO._____ JBC-1)
TAMPA ELECTRIC COMPANY
DOCKET NO. 20200001-EI
DOCUMENT NO. 1
PAGE 1 OF 22

TAMPA ELECTRIC COMPANY GENERATING PERFORMANCE INCENTIVE FACTOR JANUARY 2019 - DECEMBER 2019 TRUE-UP TABLE OF CONTENTS

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EXHIBIT NO._____ JBC-1)
TAMPA ELECTRIC COMPANY
DOCKET NO. 20200001-EI
DOCUMENT NO. 1
PAGE 2 OF 22

TAMPA ELECTRIC COMPANY GENERATING PERFORMANCE INCENTIVE FACTOR REWARD / PENALTY TABLE - ACTUAL JANUARY 2019 - DECEMBER 2019

GENERATING PERFORMANCE INCENTIVE POINTS (GPIP)	FUEL SAVINGS / (LOSS) (\$000)	GENERATING PERFORMANCE INCENTIVE FACTOR (\$000)
+10	10,838.7	5,419.3
+9	9,754.8	4,877.4
+8	8,671.0	4,335.5
+7	7,587.1	3,793.5
+6	GPI 6,503.2 REWARD	
+5	POINTS DOLLARS 5,419.3 \$2,858,056	
+4	4,335.5	2,167.7
+3	3,251.6	1,625.8
+2	2,167.7	1,083.9
+1	1,083.9	541.9
0	0.0	0.0
-1	(1,256.1)	(541.9)
-2	(2,512.1)	(1,083.9)
-3	(3,768.2)	(1,625.8)
-4	(5,024.3)	(2,167.7)
-5	(6,280.3)	(2,709.7)
-6	(7,536.4)	(3,251.6)
-7	(8,792.4)	(3,793.5)
-8	(10,048.5)	(4,335.5)
-9	(11,304.6)	(4,877.4)
-10	(12,560.6)	(5,419.3)

EXHIBIT NO._____ JBC-1)
TAMPA ELECTRIC COMPANY
DOCKET NO. 20200001-EI
DOCUMENT NO. 1
PAGE 3 OF 22

TAMPA ELECTRIC COMPANY GENERATING PERFORMANCE INCENTIVE FACTOR CALCULATION OF MAXIMUM ALLOWED INCENTIVE DOLLARS - ACTUAL JANUARY 2019 - DECEMBER 2019

Line 1	Beginning of period balance of common equity: End of month common equity:			2,867,405,914
Line 2	Month of January	2019	\$	2,882,004,481
Line 3	Month of February	2019	\$	2,909,743,602
Line 4	Month of March	2019	\$	2,924,640,926
Line 5	Month of April	2019	\$	2,946,588,417
Line 6	Month of May	2019	\$	3,011,756,553
Line 7	Month of June	2019	\$	3,047,198,358
Line 8	Month of July	2019	\$	3,085,572,885
Line 9	Month of August	2019	\$	3,033,558,076
Line 10	Month of September	2019	\$	3,069,893,560
Line 11	Month of October	2019	\$	3,104,286,978
Line 12	Month of November	2019	\$	3,155,976,279
Line 13	Month of December	2019	\$	3,164,685,873
Line 14	(Summation of line 1 through l	line 13 divided by 13)	\$	3,015,639,377
Line 15	25 Basis points			0.0025
Line 16	Revenue Expansion Factor			75.30%
Line 17	Maximum Allowed Incentive I (line 14 times line 15 divided by		\$	10,012,482
Line 18	Jurisdictional Sales			19,783,566 MWH
Line 19	Total Sales			19,783,566 MWH
Line 20	Jurisdictional Separation Factor (line 18 divided by line 19)	or		100.00%
Line 21	Maximum Allowed Jurisdictional Incentive Dollars (line 17 times line 20)			10,012,482
Line 22	Incentive Cap (50% of projected fuel savings at 10 GPIF-Point level from Sheet No. 3.515)			5,419,348
Line 23	Maximum Allowed GPIF Reward (At 10 GPIF-Point Level; the lesser of line 21 and line 22)			5,419,348

EXHIBIT NO._____ JBC-1)
TAMPA ELECTRIC COMPANY
DOCKET NO. 20200001-EI
DOCUMENT NO. 1
PAGE 4 OF 22

TAMPA ELECTRIC COMPANY CALCULATION OF SYSTEM GPIF POINTS - ACTUAL JANUARY 2019 - DECEMBER 2019

PLANT / UNIT	ADJ. A	ONTH CTUAL RMANCE	WEIGHTING FACTOR %	UNIT POINTS	WEIGHTED UNIT POINTS
POLK 1	77.0%	EAF	5.07%	-10.000	-0.507
POLK 2	90.6%	EAF	1.90%	-1.742	-0.033
BAYSIDE 1	89.1%	EAF	1.11%	-10.000	-0.111
BAYSIDE 2	89.0%	EAF	3.12%	10.000	0.312
POLK 1	8,880	ANOHR	10.57%	10.000	1.057
POLK 2	6,469	ANOHR	36.89%	10.000	3.689
BAYSIDE 1	7,344	ANOHR	14.00%	0.000	0.000
BAYSIDE 2	7,438	ANOHR	27.35%	3.170	0.867
			100.00%		5.274

GPIF REWARD \$ 2,858,056

TAMPA ELECTRIC COMPANY GPIF TARGET AND RANGE SUMMARY

EQUIVALENT AVAILABILITY (%)

PLANT / UNIT	WEIGHTING FACTOR (%)	EAF TARGET (%)	EAF MAX. (%)	RANGE MIN. (%)	MAX. FUEL SAVINGS (\$000)	MAX. FUEL LOSS (\$000)	EAF ADJUSTED ACTUAL (%)	EST. FUEL SAVINGS/ LOSS (\$000)
POLK 1	5.07%	83.3	85.4	79.1	549.8	(342.2)	77.0%	(342.2)
POLK 2	1.90%	90.9	91.7	89.2	205.7	(1,759.2)	90.6%	(306.4)
BAYSIDE 1	1.11%	91.0	91.7	89.5	120.0	(60.0)	89.1%	(60.0)
BAYSIDE 2	3.12%	87.4	88.8	84.7	337.7	(773.7)	89.0%	337.7
GPIF SYSTEM	11.19%				1,213.2	(2,935.1)		

AVERAGE NET OPERATING HEAT RATE (Btu/kwh)

PLANT / UNIT	WEIGHTING FACTOR (%)	ANOHR (Btu/kwh)	TARGET NOF (%)		TARGET NGE MAX.	MAX. FUEL SAVINGS (\$000)	MAX. FUEL LOSS (\$000)	ACTUAL ADJUSTED ANOHR	EST. FUEL SAVINGS/ LOSS (\$000)
POLK 1	10.57%	10,124	86.4	9,187	11,061	1,145.8	(1,145.8)	8,880	1,145.8
POLK 2	36.89%	6,904	81.0	6,731	7,077	3,998.7	(3,998.7)	6,469	3,998.7
BAYSIDE 1	14.00%	7,400	80.6	7,284	7,516	1,517.1	(1,517.1)	7,344	0.0
BAYSIDE 2	27.35%	7,561	60.5	7,334	7,789	2,964.0	(2,964.0)	7,438	939.6
GPIF SYSTEM	88.81%					9,625.5	(9,625.5)		

EXHIBIT NO._____ JBC-1)
TAMPA ELECTRIC COMPANY
DOCKET NO. 20200001-EI
DOCUMENT NO. 1
PAGE 6 OF 22

TAMPA ELECTRIC COMPANY UNIT PERFORMANCE DATA - ACTUAL JANUARY 2019 - DECEMBER 2019

PLANT / UNIT	ACTUAL EAF (%)	ADJUSTMENTS (1) TO EAF (%)	EAF ADJUSTED ACTUAL (%)
POLK 1	78.9	-1.9	77.0
POLK 2	92.6	-2.0	90.6
BAYSIDE 1	85.1	4.0	89.1
BAYSIDE 2	85.5	3.5	89.0
PLANT / UNIT	ACTUAL ANOHR (Btu/kwh)	ADJUSTMENTS (2) TO ANOHR (Btu/kwh)	ANOHR ADJUSTED ACTUAL (Btu/kwh)
POLK 1	8,960	-80	8,880
POLK 2	6,997	-528	6,469
BAYSIDE 1	7,402	-58	7,344
BAYSIDE 2	7,408	30	7,438

⁽¹⁾ Documentation of adjustments to Actual EAF on pages 7 - 10

⁽²⁾ Documentation of adjustments to Actual ANOHR on pages 11 - 14

EXHIBIT NO._____ JBC-1)
TAMPA ELECTRIC COMPANY
DOCKET NO. 20200001-EI
DOCUMENT NO. 1
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TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE POLK UNIT NO. 1 JANUARY 2019 - DECEMBER 2019

WEIGHTING FACTOR =

5.07%

	12 MONTH TARGET	12 MONTH ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
РН	8,760.0	8,760.0	8,760.0
EAF	83.3	78.9	77.0
РОН	720.0	419.0	720.0
FOH + EFOH	599.1	620.3	597.9
MOH + EMOH	143.3	729.0	702.7
POF	8.2	4.8	8.2
EFOF	6.8	7.1	6.8
EMOF	1.6	8.3	8.0
	-10.000	EQUIVALENT AVAILA	ABILITY POINTS

ADJUSTMENTS TO ACTUAL EAF FOR COMPARISON

$$\frac{PH - POH_{TARGET}}{PH - POH_{ACTUAL}} \times (FOH + EFOH + MOH + EMOH) = EUOH_{ADJUSTED}$$

$$\frac{8760 - 720}{8760 - 419} \times (620.3 + 729) = 1,300.6$$

$$100 - POF_{TARGET} - \frac{EUOH_{ADJUSTED}}{PH} \times 100 = EAF_{ADJUSTED}$$

PH = PERIOD HOURS

EAF = EQUIVALENT AVAILABILITY FACTOR

POH = PLANNED OUTAGE HOURS

FOH = FORCED OUTAGE HOURS

EFOH = EQUIVALENT FORCED OUTAGE HOURS

MOH = MAINTENANCE OUTAGE HOURS

EMOH = EQUIVALENT MAINTENANCE OUTAGE HOURS

POF = PLANNED OUTAGE FACTOR

EFOF = EQUIVALENT FORCED OUTAGE FACTOR

EXHIBIT NO._____ JBC-1)
TAMPA ELECTRIC COMPANY
DOCKET NO. 20200001-EI
DOCUMENT NO. 1
PAGE 8 OF 22

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE POLK UNIT NO. 2 JANUARY 2019 - DECEMBER 2019

WEIGHTING FACTOR =

1.90%

	12 MONTH TARGET	12 MONTH ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
РН	8,760.0	8,760.0	8,760.0
EAF	90.9	92.6	90.6
РОН	576.0	391.4	576.0
FOH + EFOH	108.5	179.1	175.1
MOH + EMOH	113.5	76.0	74.3
POF	6.6	4.5	6.6
EFOF	1.2	2.0	2.0
EMOF	1.3	0.9	0.8
	-1.742	EQUIVALENT AVAIL	ABILITY POINTS

ADJUSTMENTS TO ACTUAL EAF FOR COMPARISON

$$\frac{PH - POH_{TARGET}}{PH - POH_{ACTUAL}} \times (FOH + EFOH + MOH + EMOH) = EUOH_{ADJUSTED}$$

$$\frac{8760 - 576}{8760 - 391.4} \times (179.1 + 76) = 249.5$$

$$100 - POF_{TARGET} - \frac{EUOH_{ADJUSTED}}{PH} \times 100 = EAF_{ADJUSTED}$$

$$100 - 6.6 - 249.5 \times 100 = 90.6$$

PH = PERIOD HOURS

EAF = EQUIVALENT AVAILABILITY FACTOR

POH = PLANNED OUTAGE HOURS

FOH = FORCED OUTAGE HOURS

EFOH = EQUIVALENT FORCED OUTAGE HOURS

MOH = MAINTENANCE OUTAGE HOURS

EMOH = EQUIVALENT MAINTENANCE OUTAGE HOURS

POF = PLANNED OUTAGE FACTOR

EFOF = EQUIVALENT FORCED OUTAGE FACTOR

EXHIBIT NO._____ JBC-1)
TAMPA ELECTRIC COMPANY
DOCKET NO. 20200001-EI
DOCUMENT NO. 1
PAGE 9 OF 22

TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE BAYSIDE UNIT NO. 1 JANUARY 2019 - DECEMBER 2019

WEIGHTING FACTOR =

1.11%

	12 MONTH TARGET	12 MONTH ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
РН	8,760.0	8,760.0	8,760.0
EAF	91.0	85.1	89.1
РОН	624.0	973.6	624.0
FOH + EFOH	83.9	259.4	271.0
MOH + EMOH	82.8	62.5	65.3
POF	7.1	11.1	7.1
EFOF	1.0	3.0	3.1
EMOF	0.9	0.7	0.7
	-10.000	EQUIVALENT AVAILA	ABILITY POINTS

ADJUSTMENTS TO ACTUAL EAF FOR COMPARISON

$$\frac{PH - POH_{ARGET}}{PH - POH_{ACTUAL}} \times (FOH + EFOH + MOH + EMOH) = EUOH_{ADJUSTED}$$

$$\frac{8760 - 624}{8760 - 973.6} \times (259.4 + 62.5) = 336.4$$

$$100 - POF_{TARGET} - \frac{EUOH_{ADJUSTED}}{PH} \times 100 = EAF_{ADJUSTED}$$

$$100 - 7.1 - \frac{336.4}{8.760.0} \times 100 = 89.1$$

PH = PERIOD HOURS

EAF = EQUIVALENT AVAILABILITY FACTOR

POH = PLANNED OUTAGE HOURS

FOH = FORCED OUTAGE HOURS

EFOH = EQUIVALENT FORCED OUTAGE HOURS

MOH = MAINTENANCE OUTAGE HOURS

EMOH = EQUIVALENT MAINTENANCE OUTAGE HOURS

POF = PLANNED OUTAGE FACTOR

EFOF = EQUIVALENT FORCED OUTAGE FACTOR

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TAMPA ELECTRIC COMPANY ADJUSTMENTS TO PERFORMANCE BAYSIDE UNIT NO. 2 JANUARY 2019 - DECEMBER 2019

WEIGHTING FACTOR =

3.12%

	12 MONTH TARGET	12 MONTH ACTUAL PERFORMANCE	ADJUSTED ACTUAL PERFORMANCE
РН	8,760.0	8,760.0	8,760.0
EAF	87.4	85.5	89.0
РОН	671.0	998.0	671.0
FOH + EFOH	204.3	132.1	137.7
MOH + EMOH	224.5	144.8	150.9
POF	7.7	11.4	7.7
EFOF	2.3	1.5	1.6
EMOF	2.6	1.7	1.7
	10.000	EOUIVALENT AVAIL	ABILITY POINTS

ADJUSTMENTS TO ACTUAL EAF FOR COMPARISON

$$\frac{PH - POH_{TARGET}}{PH - POH_{ACTUAL}} \times (FOH + EFOH + MOH + EMOH) = EUOH_{ADJUSTED}$$

$$\frac{8760 - 671}{8760 - 998} \times (132.1 + 144.8) = 288.6$$

$$100 - POF_{TARGET} - \frac{EUOH_{ADJUSTED}}{PH} \times 100 = EAF_{ADJUSTED}$$

$$100 - 7.7 - \frac{288.6}{8,760.0} \times 100 = 89.0$$

PH = PERIOD HOURS

EAF = EQUIVALENT AVAILABILITY FACTOR

POH = PLANNED OUTAGE HOURS

FOH = FORCED OUTAGE HOURS

EFOH = EQUIVALENT FORCED OUTAGE HOURS

MOH = MAINTENANCE OUTAGE HOURS

EMOH = EQUIVALENT MAINTENANCE OUTAGE HOURS

POF = PLANNED OUTAGE FACTOR

EFOF = EQUIVALENT FORCED OUTAGE FACTOR

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TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE POLK UNIT NO. 1 JANUARY 2019 - DECEMBER 2019

WEIGHTING FACTOR =

10.57%

TARGET NOF

			_	12 MON'		12 MONTH ACTUAL PERFORMANCE
ANOHR (Btu/kwh)				10,124		8,960
NET GENERATION	N (GWI	H)		458.2		622.5
OPERATING BTU	(10^9)			3,747.9)	5,577.4
NET OUTPUT FAC	CTOR			86.4		59.0
		10.000	Н	EAT RATI	E POIN	ITS
ADJUSTMENTS T	O ACTI	UAL HEAT RATE FO	OR COMP	ARISON		
CURRENT EQUAT	TION:	NOF *(-2.93) + 10	0377.49	= ANO	OHR	
	59 * ((-2.93) + 10377.49	=	10,204		
8,960	-	10,204	=	-1244		
10,124	+	-1244	=	8,880	←	ADJUSTED ACTUAL HEAT RATE AT

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TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE POLK UNIT NO. 2 JANUARY 2019 - DECEMBER 2019

WEIGHTING FACTOR =

36.89%

		_		MONT:		12 MONTH ACTUAL PERFORMANCE
ANOHR (Btu/kwh)				6,904		6,997
NET GENERATION (GW	H)		7	7,509.5		6,399.5
OPERATING BTU (10 ⁹)			5	1,036.1		44,776.0
NET OUTPUT FACTOR				81.0		71.2
	10.000	1	HEAT	RATE	POIN	TS
ADJUSTMENTS TO ACT	UAL HEAT RATE F	OR COM	IPARIS	SON		
CURRENT EQUATION:	NOF *(-53.86) + 1	1266.21	=	ANO	HR	
71.2 * ((-53.86) + 11266.21	=		7,431		
6,997 -	7,431	=		-434		
6,904 +	-434	=		6,469	•	ADJUSTED ACTUAL HEAT RATE AT TARGET NOF

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TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE BAYSIDE UNIT NO. 1 JANUARY 2019 - DECEMBER 2019

WEIGHTING FACTOR =

14.00%

			_		MONTE CARGET		12 MONTH ACTUAL PERFORMANCE
ANOHR (Btu/kwh)					7,400		7,402
NET GENERATIO	N (GWH)				4,520.1		3,192.8
OPERATING BTU	(10^9)			•	32,958.7		23,632.0
NET OUTPUT FAC	CTOR				80.6		60.2
		0.000		HEAT	Γ RATE I	POIN	TS
ADJUSTMENTS T	O ACTU	AL HEAT RATE F	OR COM	IPARI	SON		
CURRENT EQUA	ΓΙΟN:	NOF *(-2.85) + '	7629.82	=	ANOH	IR	
	60.2 * ((-2.85) + 7629.82	=		7,458		
7,402	-	7,458	=		-56		
7,400	+	-56	=		7,344	—	ADJUSTED ACTUAL HEAT RATE AT TARGET NOF

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TAMPA ELECTRIC COMPANY ADJUSTMENTS TO HEAT RATE BAYSIDE UNIT NO. 2 JANUARY 2019 - DECEMBER 2019

WEIGHTING FACTOR =

27.35%

TARGET NOF

			_		MONT		12 MONTH ACTUAL PERFORMANCE
ANOHR (Btu/kwh)					7,561		7,408
NET GENERATION	N (GWH)				4,441.0		4,648.5
OPERATING BTU	(10^9)				33,370.3		34,437.1
NET OUTPUT FAC	TOR				60.5		64.9
		3.170		HEAT	ΓRATE	POIN	TS
ADJUSTMENTS TO	O ACTU	AL HEAT RATE F	OR COM	<u>IPARI</u>	SON		
CURRENT EQUAT	ION:	NOF *(-6.67) +	7964.98	=	ANO	HR	
	64.9 * (-6.67) + 7964.98	=		7,532		
7,408	-	7,532	=		-124		
7,561	+	-124	=		7,438	•	ADJUSTED ACTUAL HEAT RATE AT

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TAMPA ELECTRIC COMPANY PLANNED OUTAGE SCHEDULE (ACTUAL) GPIF UNITS JANUARY 2019 - DECEMBER 2019

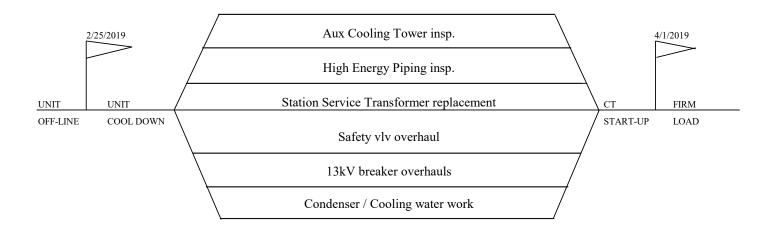
PLANNED OUTAGE

PLANT / UNIT	PLANNED OUTAGEDATES	OUTAGE DESCRIPTION
POLK 1	Oct 09 - Oct 26	Fuel System Cleanup
POLK 2	Apr 09 - Apr 22 Nov 19 - Nov 25	LP Steam Vlv repairs, Hotwell inspection Fuel System Cleanup
+ BAYSIDE 1	Feb 25 - Apr 01	Station Service Transformer replacement, Aux Cooling Tower insp., High Energy Piping insp., Safety vlv overhaul, 13kV breaker overhauls, Condenser / Cooling water work
	Oct 27 - Nov 09	Fuel System Cleanup
BAYSIDE 2	Jan 12 - Feb 01 Dec 02 Dec 16	Fuel System Cleanup Fuel System Cleanup

⁺ CPM for units with less than or equal to 4 weeks are not included.

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TAMPA ELECTRIC COMPANY CRITICAL PATH METHOD DIAGRAMS GPIF UNITS > FOUR WEEKS JANUARY 2019 - DECEMBER 2019



TAMPA ELECTRIC COMPANY
BAYSIDE 1
PLANNED OUTAGE 2019
ACTUAL CPM

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TAMPA ELECTRIC COMPANY

GENERATING PERFORMANCE INCENTIVE POINTS TABLE

JANUARY 2019 - DECEMBER 2019

POLK 1

EQUIVALENT AVAILABILITY POINTS	FUEL SAVINGS / (LOSS) (\$000)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE POINTS	FUEL SAVINGS / (LOSS) (\$000)	ADJUSTED ACTUAL AVERAGE HEAT RATE
+10	549.8	85.4		AHR 1,145.8 Adjusted	9,187
+9	494.8	85.2		OINTS 1,031.2 ANOHR 8,880	9,274
+8	439.8	85.0	+8	916.6	9,360
+7	384.9	84.8	+7	802.1	9,446
+6	329.9	84.6	+6	687.5	9,532
+5	274.9	84.4	+5	572.9	9,618
+4	219.9	84.1	+4	458.3	9,704
+3	164.9	83.9	+3	343.7	9,791
+2	110.0	83.7	+2	229.2	9,877
+1	55.0	83.5	+1	114.6	9,963
					10,049
0	0.0	83.3	0	0.0	10,124
					10,199
-1	(34.2)	82.9	-1	(114.6)	10,285
-2	(68.4)	82.5	-2	(229.2)	10,372
-3	(102.7)	82.0	-3	(343.7)	10,458
-4	(136.9)	81.6	-4	(458.3)	10,544
-5	(171.1)	81.2	-5	(572.9)	10,630
-6	(205.3)	80.8	-6	(687.5)	10,716
-7	(239.6)	80.4	-7	(802.1)	10,802
-8	(273.8)	79.9	-8	(916.6)	10,889
	Adjust INTS (308.0) Adjust EAF		-9	(1,031.2)	10,975
	0.000 (342.2) EAF	79.1	-10	(1,145.8)	11,061

Weighting Factor =

10.57%

5.07%

Weighting Factor =

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TAMPA ELECTRIC COMPANY

GENERATING PERFORMANCE INCENTIVE POINTS TABLE

JANUARY 2019 - DECEMBER 2019

POLK 2

EQUIVALENT AVAILABILITY POINTS	FUEL SAVINGS / (LOSS) (\$000)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE POINTS	FUEL SAVINGS / (LOSS) (\$000)	ADJUSTED ACTUAL AVERAGE HEAT RATE
+10	205.7	91.7	+10	AHR 3,998.7 Adjusted	6,731
+9	185.2	91.6	+9	POINTS 3,598.8 ANOHR 6,469	6,741
+8	164.6	91.6	+8	3,198.9	6,750
+7	144.0	91.5	+7	2,799.1	6,760
+6	123.4	91.4	+6	2,399.2	6,770
+5	102.9	91.3	+5	1,999.3	6,780
+4	82.3	91.2	+4	1,599.5	6,790
+3	61.7	91.1	+3	1,199.6	6,799
+2	41.1	91.1	+2	799.7	6,809
+1	20.6	91.0	+1	399.9	6,819
					6,829
0	0.0	90.9	0	0.0	6,904
					6,979
	EAF (175.9) Adjuste	d 90.7	-1	(399.9)	6,988
, ,	OINTS EAF -1.742 (351.8) 90.6	90.6	-2	(799.7)	6,998
-3	(527.8)	90.4	-3	(1,199.6)	7,008
-4	(703.7)	90.2	-4	(1,599.5)	7,018
-5	(879.6)	90.1	-5	(1,999.3)	7,028
-6	(1,055.5)	89.9	-6	(2,399.2)	7,037
-7	(1,231.5)	89.7	-7	(2,799.1)	7,047
-8	(1,407.4)	89.6	-8	(3,198.9)	7,057
-9	(1,583.3)	89.4	-9	(3,598.8)	7,067
-10	(1,759.2)	89.2	-10	(3,998.7)	7,077
Weigh	ating Factor =	1.90%	We	ighting Factor =	36.89%

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TAMPA ELECTRIC COMPANY

GENERATING PERFORMANCE INCENTIVE POINTS TABLE

JANUARY 2019 - DECEMBER 2019

BAYSIDE 1

EQUIVALENT AVAILABILITY POINTS	FUEL SAVINGS / (LOSS) (\$000)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE POINTS	FUEL SAVINGS / (LOSS) (\$000)	ADJUSTED ACTUAL AVERAGE HEAT RATE
+10	120.0	91.7	+10	1,517.1	7,284
+9	108.0	91.6	+9	1,365.4	7,288
+8	96.0	91.6	+8	1,213.7	7,292
+7	84.0	91.5	+7	1,061.9	7,296
+6	72.0	91.4	+6	910.2	7,300
+5	60.0	91.3	+5	758.5	7,305
+4	48.0	91.3	+4	606.8	7,309
+3	36.0	91.2	+3	455.1	7,313
+2	24.0	91.1	+2	303.4	7,317
+1	12.0	91.0	+1	151.7	7,321
0	0.0	91.0	← P	AHR OINTS 0.000 0.00 Adjuste ANOHI 7,344	7,325 7,400 7,475
-1	(6.0)	90.8	-1	(151.7)	7,479
-2	(12.0)	90.7	-2	(303.4)	7,483
-3	(18.0)	90.5	-3	(455.1)	7,487
-4	(24.0)	90.4	-4	(606.8)	7,491
-5	(30.0)	90.2	-5	(758.5)	7,495
-6	(36.0)	90.1	-6	(910.2)	7,500
-7	(42.0)	89.9	-7	(1,061.9)	7,504
-8	(48.0)	89.8	-8	(1,213.7)	7,508
	AF (54.0) Adjust		-9	(1,365.4)	7,512
	(60.0) EAF 89.1		-10	(1,517.1)	7,516

Weighting Factor = 1.11% Weighting Factor = 14.00%

TAMPA ELECTRIC COMPANY

GENERATING PERFORMANCE INCENTIVE POINTS TABLE

JANUARY 2019 - DECEMBER 2019

BAYSIDE 2

EQUIVALENT AVAILABILITY POINTS	FUEL SAVINGS / (LOSS) (\$000)	ADJUSTED ACTUAL EQUIVALENT AVAILABILITY	AVERAGE HEAT RATE POINTS	FUEL SAVINGS / (LOSS) (\$000)	ADJUSTED ACTUAL AVERAGE HEAT RATE
+10	EAF 337.7 Adjusted	88.8	+10	2,964.0	7,334
+9	POINTS EAF 10.000 303.9	88.7	+9	2,667.6	7,349
+8	270.1	88.5	+8	2,371.2	7,364
+7	236.4	88.4	+7	2,074.8	7,379
+6	202.6	88.3	+6	1,778.4	7,395
+5	168.8	88.1	+5	1,482.0	7,410
+4	135.1	88.0	+4	1,185.6	7,425
+3	101.3	87.9	+3 ← P (AHR DINTS 889.2 ANOHF 3.170 7,438	
+2	67.5	87.7	+2	3.170 7,438 592.8	7 ,456
+1	33.8	87.6	+1	296.4	7,471
					7,486
0	0.0	87.4	0	0.0	7,561
					7,636
-1	(77.4)	87.2	-1	(296.4)	7,652
-2	(154.7)	86.9	-2	(592.8)	7,667
-3	(232.1)	86.6	-3	(889.2)	7,682
-4	(309.5)	86.4	-4	(1,185.6)	7,698
-5	(386.8)	86.1	-5	(1,482.0)	7,713
-6	(464.2)	85.8	-6	(1,778.4)	7,728
-7	(541.6)	85.5	-7	(2,074.8)	7,743
-8	(618.9)	85.3	-8	(2,371.2)	7,759
-9	(696.3)	85.0	-9	(2,667.6)	7,774
-10	(773.7)	84.7	-10	(2,964.0)	7,789

Weighting Factor = 3.12% Weighting Factor = 27.35%

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TAMPA ELECTRIC COMPANY COMPARISON OF GPIF TARGETS VS ACTUAL PERFORMANCE

EQUIVALENT AVAILABILITY (%)

	TARGET WEIGHTING FACTOR	NORMALIZED WEIGHTING		GET PER	_		. PERFOI	RMANCE C 19
PLANT / UNIT	(%)	FACTOR	POF	EUOF	EUOR	POF	EUOF	EUOR
POLK 1	5.1%	45.3%	8.2	8.5	9.2	4.8	15.4	16.2
POLK 2	1.9%	17.0%	6.6	2.5	2.7	4.5	2.9	3.0
BAYSIDE 1	1.1%	9.9%	7.1	1.9	2.0	11.1	3.7	4.1
BAYSIDE 2	3.1%	27.8%	7.7	4.9	5.3	11.4	3.2	3.6
GPIF SYSTEM	11.2%	100.0%	7.7	5.8	6.3	7.2	8.7	9.2
GPIF SYSTEM V	WEIGHTED EQU	U IVALENT AVAILA	BILITY (%	86.5			<u>84.1</u>	
			3 PER	IOD AVE EUOF	RAGE EUOR	3 PER	IOD AVE EAF	CRAGE
			7.7	15.6	16.7		76.7	

AVERAGE NET OPERATING HEAT RATE (Btu/kwh)

PLANT / UNIT	TARGET WEIGHTING FACTOR (%)	NORMALIZED WEIGHTING FACTOR	TARGET HEAT RATE JAN 19 - DEC 19	ADJUSTED ACTUAL HEAT RATE JAN 19 - DEC 19
POLK 1	10.57%	11.9%	10,124	8,880
POLK 2	36.89%	41.5%	6,904	6,469
BAYSIDE 1	14.00%	15.8%	7,400	7,344
BAYSIDE 2	27.35%	30.8%	7,561	7,438
GPIF SYSTEM	88.8%	100.0%		
GPIF SYSTEM V	WEIGHTED AVI	ERAGE HEAT RATE	(Btu/kwh) 7,568	7,192

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TAMPA ELECTRIC COMPANY GENERATING PERFORMANCE INCENTIVE POINTS CALCULATION JANUARY 2019 - DECEMBER 2019

Points are calculated according to the formula:

$$GPIP = \sum_{i=1}^{n} \left[a_i (EAP_i) + e_i (AHRP_i) \right]$$

Where:

GPIP = Generating performance incentive points

 a_i = Percentage of total system fuel cost reduction attributed to maximum reasonably attainable equivalent availability of unit i during the period

 e_i = Percentage of total system fuel cost reduction attributed to minimum reasonably attainable average heat rate of unit i during the period

 EAP_i = Equivalent availability points awarded/deducted for unit i

AHRP_i = Average heat rate points awarded/deducted for unit i

Weighting factors and point values are listed on page 4.

$$GPIP = 5.07\%$$
 * -10.000 + 1.90% * -1.742 + 1.11% * -10.000 + 3.12% * 10.000 + 10.57% * 10.000 + 36.89% * 10.000 + 14.00% * 0.000 + 27.35% * 3.170

$$GPIP = \underline{5.274}$$
 POINTS

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

GPIF REWARD = \$2,858,056

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DOCKET NO. 20200001-EI
GPIF 2019 FINAL TRUE-UP
DOCUMENT NO. 2

EXHIBIT TO THE TESTIMONY OF JEREMY B. CAIN

DOCKET NO. 20200001-EI

TAMPA ELECTRIC COMPANY

GENERATING PERFORMANCE INCENTIVE FACTOR

JANUARY 2019 - DECEMBER 2019

TRUE-UP

DOCUMENT NO. 2

ACTUAL UNIT PERFORMANCE DATA

EXHIBIT NO._____ (JBC-1) TAMPA ELECTRIC COMPANY DOCKET NO. 20200001-EI DOCUMENT NO. 2 PAGE 1 OF 4

ORIGINAL SHEET NO. 8.401.19A TAMPA ELECTRIC COMPANY

ACTUAL UNIT PERFORMANCE DATA

PLANT/UNIT		MONTH OF:	PERIOD											
POLK 1		JAN 19	FEB 19	MAR 19	APR 19	MAY 19	JUN 19	JUL 19	AUG 19	SEP 19	OCT 19	NOV 19	DEC 19	2019
Equivalent Availability Factor (%)	EAF	61.1	18.0	81.8	100.0	68.9	98.5	98.8	100.0	100.0	43.7	86.9	82.9	78.9
2. Period Hours	PH	744	672	744	720	744	720	744	744	720	744	720	744	8,760
3. Service Hours	SH	192.7	53.0	458.1	692.0	509.0	667.2	319.9	409.9	465.6	133.8	358.1	173.9	4,433.2
Reserve Shutdown Hours	RSH	322.9	0.0	179.0	28.0	3.4	42.0	415.5	334.1	254.4	191.2	279.3	443.1	2,492.9
5. Unavailable Hours	UH	213.9	539.6	106.9	0.0	231.6	10.8	8.6	0.0	0.0	419.0	82.6	127.0	1,740.0
6. Planned Outage Hours	РОН	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	419.0	0.0	0.0	419.0
7. Forced Outage Hours	FOH	19.6	539.6	0.0	0.0	41.5	8.7	0.0	0.0	0.0	0.0	0.0	0.0	609.4
8. Maintenance Outage Hours	МОН	208.8	0.0	106.9	0.0	190.1	2.1	8.6	0.0	0.0	0.0	82.6	127.0	726.1
9a. Partial Planned Outage Hours	PPOH	744.0	493.0	30.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,267.9
9b. Load Reduction Partial Planned (MW)	LRPP	20.0	5.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.3
10a. Partial Forced Outage Hours	PFOH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	372.2	0.0	372.2
10b. Load Reduction Partial Forced (MW)	LRPF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	7.0
11a. Partial Maintenance Outage Hours	РМОН	0.0	0.0	46.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.7
11b. Load Reduction Partial Maintenance (MW)	LRPM	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
12. Net Summer Continuous Rating (MW)	NSC	235	235	235	235	235	235	235	235	235	235	235	235	235
13. Operating British Thermal Units (GBTU)	OPR BTU	247.0	62.5	551.9	884.0	657.3	872.8	386.1	475.2	515.6	181.6	493.7	249.7	5,577.4
14. Net Generation (MWH)	NETGEN	23,968.3	4,295.0	61,112.0	103,624.0	75,289.0	101,034.8	40,693.3	51,490.0	55,151.1	19,059.4	59,836.1	26,913.0	622,466.0
15. Avg. Net Operating Heat Rate (BTU/KWH)	ANOHR	10,304.7	14,559.0	9,032.0	8,531.0	8,731.0	8,639.0	9,789.0	9,229.0	9,348.0	9,529.0	8,251.0	9,279.0	8,960.2
16. Net Output Factor (%)	NOF	50.8	32.9	55.1	64.5	62.9	64.4	54.1	53.5	50.4	60.6	71.1	63.9	59.0

EXHIBIT NO._____ (JBC-1) TAMPA ELECTRIC COMPANY DOCKET NO. 20200001-EI DOCUMENT NO. 2 PAGE 2 OF 4

ORIGINAL SHEET NO. 8.401.19A TAMPA ELECTRIC COMPANY

ACTUAL UNIT PERFORMANCE DATA

PLANT/UNIT		MONTH OF:	PERIOD											
POLK 2		JAN 19	FEB 19	MAR 19	APR 19	MAY 19	JUN 19	JUL 19	AUG 19	SEP 19	OCT 19	NOV 19	DEC 19	2019
Equivalent Availability Factor (%)	EAF	98.7	95.3	99.5	64.2	99.4	80.4	97.0	99.5	99.3	99.9	71.7	93.0	92.6
2. Period Hours	PH	744	672	744	720	744	720	744	744	720	744	720	744	8,760
3. Service Hours	SH	742.3	643.0	741.8	396.0	744.0	643.1	730.9	740.3	715.1	743.4	569.2	713.4	8,122.5
4. Reserve Shutdown Hours	RSH	0.0	0.0	0.0	66.5	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	67.5
5. Unavailable Hours	UH	1.7	29.0	2.2	257.5	0.0	76.9	12.1	3.7	4.9	0.6	150.8	30.6	570.0
6. Planned Outage Hours	POH	0.0	0.0	0.0	245.0	0.0	0.0	0.0	0.0	0.0	0.0	120.7	25.7	391.4
7. Forced Outage Hours	FOH	1.7	29.0	2.2	10.1	0.0	76.9	2.5	0.1	0.3	0.6	16.6	0.2	140.2
8. Maintenance Outage Hours	МОН	0.0	0.0	0.0	2.4	0.0	0.0	9.6	3.6	4.7	0.0	13.5	4.7	38.5
9a. Partial Planned Outage Hours	PPOH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9b. Load Reduction Partial Planned (MW)	LRPP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10a. Partial Forced Outage Hours	PFOH	5.0	8.4	5.8	0.0	18.3	237.6	7.6	0.0	0.0	1.7	51.0	0.4	335.8
10b. Load Reduction Partial Forced (MW)	LRPF	34.0	298.6	97.0	0.0	138.0	125.2	124.9	0.0	0.0	124.5	125.0	123.4	128.3
11a. Partial Maintenance Outage Hours	РМОН	32.3	0.0	0.0	0.0	0.0	0.0	29.7	0.0	0.0	0.0	135.7	81.1	278.8
11b. Load Reduction Partial Maintenance (MW)	LRPM	300.0	0.0	0.0	0.0	0.0	0.0	125.0	0.0	0.0	0.0	132.5	125.0	148.9
12. Net Summer Continuous Rating (MW)	NSC	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061
13. Operating British Thermal Units (GBTU)	OPR BTU	4,703.9	2,665.0	3,704.2	1,627.1	3,689.5	3,213.4	4,270.8	4,669.9	4,373.8	4,680.8	2,949.5	4,228.1	44,776.0
14. Net Generation (MWH)	NETGEN	682,239.1	377,898.0	527,688.0	213,900.0	517,263.0	449,778.0	592,883.0	673,696.0	658,273.7	676,742.0	417,852.0	611,288.0	6,399,500.8
15. Avg. Net Operating Heat Rate (BTU/KWH)	ANOHR	6,894.7	7,052.0	7,020.0	7,607.0	7,134.0	7,144.0	7,204.0	6,932.0	6,912.0	6,917.0	7,050.0	6,917.0	6,996.8
16. Net Output Factor (%)	NOF	76.6	49.0	59.1	50.6	65.5	58.9	75.1	85.3	86.3	85.7	66.0	68.5	71.2

ORIGINAL SHEET NO. 8.401.19A TAMPA ELECTRIC COMPANY

ACTUAL UNIT PERFORMANCE DATA

PLANT/UNIT		MONTH OF:	PERIOD											
BAYSIDE 1		JAN 19	FEB 19	MAR 19	APR 19	MAY 19	JUN 19	JUL 19	AUG 19	SEP 19	OCT 19	NOV 19	DEC 19	2019
Equivalent Availability Factor (%)	EAF	99.9	87.8	23.1	87.9	93.9	95.4	86.7	96.8	97.5	78.1	67.5	98.6	85.1
Equivalent Availability Factor (%)	EAF	99.9	07.0	23.1	67.9	93.9	95.4	00.7	90.0	97.5	70.1	67.5	90.0	65.1
2. Period Hours	PH	744	672	744	720	744	720	744	744	720	744	720	744	8,760
3. Service Hours	SH	744.0	597.1	0.0	586.9	714.1	700.1	672.5	728.2	708.2	602.7	467.8	736.3	7,257.9
4. Reserve Shutdown Hours	RSH	0.0	0.0	171.9	46.5	0.0	0.0	0.0	0.0	0.0	0.0	23.6	0.0	242.0
5. Unavailable Hours	UH	0.0	74.9	572.1	86.6	29.9	19.9	71.5	15.8	11.8	141.3	228.6	7.7	1,260.1
6. Planned Outage Hours	POH	0.0	74.9	572.1	8.5	0.0	0.0	0.0	0.0	0.0	114.4	203.7	0.0	973.6
7. Forced Outage Hours	FOH	0.0	0.0	0.0	78.1	0.0	19.9	68.5	10.8	10.2	24.7	14.0	7.7	233.9
8. Maintenance Outage Hours	МОН	0.0	0.0	0.0	0.0	29.9	0.0	3.0	5.0	1.6	2.2	10.8	0.0	52.5
9a. Partial Planned Outage Hours	PPOH	0.0	48.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.5
9b. Load Reduction Partial Planned (MW)	LRPP	0.0	117.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	117.4
10a. Partial Forced Outage Hours	PFOH	2.1	0.0	0.0	0.9	0.0	39.7	81.7	16.1	12.8	36.9	16.8	10.0	217.0
10b. Load Reduction Partial Forced (MW)	LRPF	263.8	0.0	0.0	77.4	0.0	94.2	79.0	79.0	145.3	72.3	79.0	71.0	86.0
11a. Partial Maintenance Outage Hours	РМОН	0.0	0.0	0.0	0.0	44.6	7.7	0.0	7.4	2.4	20.3	0.0	0.0	82.5
11b. Load Reduction Partial Maintenance (MW)	LRPM	0.0	0.0	0.0	0.0	79.0	75.0	0.0	79.0	79.0	118.1	0.0	0.0	88.3
12. Net Summer Continuous Rating (MW)	NSC	701	701	701	701	701	701	701	701	701	701	701	701	701
13. Operating British Thermal Units (GBTU)	OPR BTU	2,153.7	1,975.7	0.0	2,092.3	2,623.6	2,709.4	2,338.2	2,555.4	2,098.8	1,848.1	1,146.7	2,090.2	23,632.0
14. Net Generation (MWH)	NETGEN	281,105.8	268,363.3	-489.0	285,493.0	357,594.0	371,287.2	316,400.6	340,370.5	282,565.0	249,882.7	153,636.9	286,572.2	3,192,782.2
15. Avg. Net Operating Heat Rate (BTU/KWH)	ANOHR	7,661.4	7,362.0	0.0	7,329.0	7,337.0	7,297.0	7,390.0	7,508.0	7,428.0	7,396.0	7,464.0	7,294.0	7,401.7
16. Net Output Factor (%)	NOF	47.7	56.8	0.0	69.4	68.6	73.6	64.1	65.3	56.0	55.1	46.8	48.6	60.2

ORIGINAL SHEET NO. 8.401.19A TAMPA ELECTRIC COMPANY

ACTUAL UNIT PERFORMANCE DATA

PLANT/UNIT		MONTH OF:	PERIOD											
BAYSIDE 2		JAN 19	FEB 19	MAR 19	APR 19	MAY 19	JUN 19	JUL 19	AUG 19	SEP 19	OCT 19	NOV 19	DEC 19	2019
Equivalent Availability Factor (%)	EAF	33.7	80.8	99.5	94.1	99.6	99.3	100.0	92.1	97.4	100.0	71.8	46.1	85.5
2. Period Hours	PH	744	672	744	720	744	720	744	744	720	744		744	8,760
3. Service Hours	SH	241.8	594.0	740.6	691.2	742.1	717.2	743.0	685.1	707.6	744.0	597.6	155.5	7,359.7
4. Reserve Shutdown Hours	RSH	24.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	212.4	237.4
5. Unavailable Hours	UH	478.2	78.0	3.4	28.8	1.9	2.8	0.0	58.9	12.4	0.0	122.4	376.1	1,162.9
6. Planned Outage Hours	POH	445.0	58.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	122.4	372.6	998.0
7. Forced Outage Hours	FOH	33.2	0.0	3.4	28.8	0.5	2.8	0.0	0.0	0.0	0.0	0.0	3.5	72.2
8. Maintenance Outage Hours	МОН	0.0	20.0	0.0	0.0	1.4	0.0	0.0	58.9	12.4	0.0	0.0	0.0	92.9
9a. Partial Planned Outage Hours	PPOH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9b. Load Reduction Partial Planned (MW)	LRPP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10a. Partial Forced Outage Hours	PFOH	0.7	383.8	0.2	53.4	1.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	445.1
10b. Load Reduction Partial Forced (MW)	LRPF	261.8	138.4	78.8	77.0	77.5	0.0	0.0	0.0	0.0	0.0	0.0	79.0	130.3
11a. Partial Maintenance Outage Hours	РМОН	59.9	0.0	0.0	0.0	2.7	8.3	0.0	0.0	24.2	0.0	164.2	41.9	301.2
11b. Load Reduction Partial Maintenance (MW)	LRPM	261.8	0.0	0.0	0.0	77.1	85.0	0.0	0.0	77.0	0.0	149.2	174.2	166.9
12. Net Summer Continuous Rating (MW)	NSC	929	929	929	929	929	929	929	929	929	929	929	929	929
13. Operating British Thermal Units (GBTU)	OPR BTU	661.3	2,265.6	4,330.1	3,601.5	4,030.2	3,898.4	3,798.3	3,042.7	2,946.1	3,292.3	2,204.7	365.9	34,437.1
14. Net Generation (MWH)	NETGEN	80,708.2	305,544.7	572,174.0	492,205.4	551,479.2	538,434.7	520,587.5	405,685.4	397,926.0	448,016.3	297,089.0	38,648.7	4,648,499.1
15. Avg. Net Operating Heat Rate (BTU/KWH)	ANOHR	8,193.5	7,415.0	7,568.0	7,317.0	7,308.0	7,240.0	7,296.0	7,500.0	7,404.0	7,349.0	7,421.0	9,469.0	7,408.2
16. Net Output Factor (%)	NOF	31.9	49.1	86.9	73.6	77.5	80.5	75.3	63.7	59.5	64.8	44.4	23.7	64.9