

# AUSLEY & McMULLEN

ATTORNEYS AND COUNSELORS AT LAW

123 SOUTH CALHOUN STREET  
P.O. BOX 391 (ZIP 32302)  
TALLAHASSEE, FLORIDA 32301  
(850) 224-9115 FAX (850) 222-7560

September 25, 2018  
**ELECTRONIC FILING**

Ms. Carlotta Stauffer, Director  
Office of Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

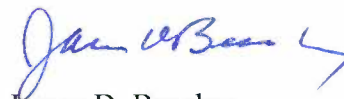
Re: Fuel and Purchased Power Cost Recovery Clause with Generating Performance  
Incentive Factor; FPSC Docket No. 20180001-EI

Dear Ms. Stauffer:

Attached for filing in the above docket is Tampa Electric Company's GPIF Actual Unit  
Performance Data Schedules for the month of August 2018.

Thank you for your assistance in connection with this matter.

Sincerely,



James D. Beasley

JDB/ne

Attachment

cc: All parties of record (w/attachment)

## CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Schedules, filed on behalf of Tampa Electric Company, has been furnished by electronic mail on this 25th day of September 2018 to the following:

Ms. Suzanne Brownless  
Office of the General Counsel  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850  
[sbrownle@psc.state.fl.us](mailto:sbrownle@psc.state.fl.us)

Ms. Patricia A. Christensen  
Associate Public Counsel  
Office of Public Counsel  
111 West Madison Street – Room 812  
Tallahassee, FL 32399-1400  
[christensen.patty@leg.state.fl.us](mailto:christensen.patty@leg.state.fl.us)

Ms. Dianne M. Triplett  
Duke Energy Florida, Inc.  
299 First Avenue North  
St. Petersburg, FL 33701  
[Dianne.triplett@duke-energy.com](mailto:Dianne.triplett@duke-energy.com)

Mr. Matthew R. Bernier  
Senior Counsel  
Duke Energy Florida, Inc.  
106 East College Avenue, Suite 800  
Tallahassee, FL 32301-7740  
[Matthew.bernier@duke-energy.com](mailto:Matthew.bernier@duke-energy.com)

Mr. Jon C Moyle, Jr.  
Moyle Law Firm  
118 North Gadsden Street  
Tallahassee, FL 32301  
[jmoyle@moylelaw.com](mailto:jmoyle@moylelaw.com)

C. Shane Boyett  
Regulatory & Cost Recovery Manager  
Gulf Power Company  
One Energy Place  
Pensacola, FL 32520-0780  
[csboyett@southernco.com](mailto:csboyett@southernco.com)

Ms. Beth Keating  
Gunster, Yoakley & Stewart, P.A.  
215 S. Monroe St., Suite 601  
Tallahassee, FL 32301  
[bkeating@gunster.com](mailto:bkeating@gunster.com)

Mr. John T. Butler  
Maria Moncada  
Assistant General Counsel – Regulatory  
Florida Power & Light Company  
700 Universe Boulevard (LAW/JB)  
Juno Beach, FL 33408-0420  
[john.butler@fpl.com](mailto:john.butler@fpl.com)  
[maria.moncada@fpl.com](mailto:maria.moncada@fpl.com)

Mr. Kenneth Hoffman  
Vice President, Regulatory Relations  
Florida Power & Light Company  
215 South Monroe Street, Suite 810  
Tallahassee, FL 32301-1859  
[ken.hoffman@fpl.com](mailto:ken.hoffman@fpl.com)

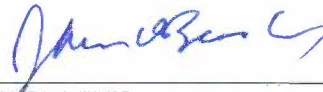
Mr. Mike Cassel  
Regulatory and Governmental Affairs  
Florida Public Utilities Company  
Florida Division of Chesapeake Utilities Corp.  
1750 SW 14th Street, Suite 200  
Fernandina Beach, FL 32034  
[mcassel@fpuc.com](mailto:mcassel@fpuc.com)

Mr. Jeffrey A. Stone  
General Counsel  
Gulf Power Company  
One Energy Place  
Pensacola, FL 32520-0100  
[jastone@southernco.com](mailto:jastone@southernco.com)

Mr. Robert Scheffel Wright  
Mr. John T. LaVia, III  
Gardner, Bist, Wiener, Wadsworth,  
Bowden, Bush, Dee, LaVia & Wright, P.A.  
1300 Thomaswood Drive  
Tallahassee, FL 32308  
[Schef@gbwlegal.com](mailto:Schef@gbwlegal.com)  
[Jlavia@gbwlegal.com](mailto:Jlavia@gbwlegal.com)

Mr. Russell A. Badders  
Mr. Steven R. Griffin  
Beggs & Lane  
Post Office Box 12950  
Pensacola, FL 32591  
[rab@beggslane.com](mailto:rab@beggslane.com)  
[srg@beggslane.com](mailto:srg@beggslane.com)

Mr. James W. Brew  
Ms. Laura A. Wynn  
Stone Mattheis Xenopoulos & Brew, PC  
1025 Thomas Jefferson Street, NW  
Eighth Floor, West Tower  
Washington, D.C. 20007-5201  
[jbrew@smxblaw.com](mailto:jbrew@smxblaw.com)  
[laura.wynn@smxblaw.com](mailto:laura.wynn@smxblaw.com)



---

ATTORNEY

ORIGINAL SHEET NO. 8.401.17A  
TAMPA ELECTRIC COMPANY

ACTUAL UNIT PERFORMANCE DATA

JANUARY 2018 - DECEMBER 2018

PLANT/UNIT	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	PERIOD
BIG BEND 2	JAN 18	FEB 18	MAR 18	APR 18	MAY 18	JUN 18	JUL 18	AUG 18	SEP 18	OCT 18	NOV 18	DEC 18	2018
1. EAF (%)	63.7	66.6	80.1	33.5	0.3	92.5	90.1	89.0					63.8
2. PH	744	672	743	720	744	720	744	744					5831
3. SH	503.5	549.5	743.0	271.0	0.0	224.3	150.6	356.0					2798.0
4. RSH	180.2	36.8	0.0	0.0	2.3	442.7	519.7	313.0					1494.7
5. UH	60.3	85.7	0.0	449.0	741.7	53.0	73.6	75.0					1538.3
6. POH	0.0	0.0	0.0	449.0	741.7	0.0	0.0	0.0					1190.7
7. FOH	60.3	85.7	0.0	0.0	0.0	53.0	34.3	0.0					233.3
8. MOH	0.0	0.0	0.0	0.0	0.0	0.0	39.3	75.0					114.3
9. PFOH	327.6	235.1	0.0	0.0	0.0	0.0	0.0	11.6					574.2
10. LR PF (MW)	44.1	9.6	0.0	0.0	0.0	0.0	0.0	175.0					32.6
11. PMOH	744.0	672.3	743.5	720.0	0.0	1.0	0.0	1.2					2882.0
12. LR PM (MW)	91.9	78.1	78.4	15.9	0.0	235.0	0.0	235.0					66.3
13. NSC (MW)	395	395	395	385	340	340	340	340					366
14. OPR BTU(GBTU)	732.3050	1006.8930	1196.0500	500.0300	0.0000	306.2350	224.0410	587.8920					4553.4460
15. NET GEN (MWH)	62029	94369	105001	48780	0	26562	19643	47786					404170
16. ANOHR (BTU/KWH)	11806	10670	11391	10251	0	11529	11406	12303					11266
17. NOF (%)	31.2	43.5	35.8	46.8	0.0	34.8	38.3	39.5					39.4
18. NPC (MW)	395	395	395	385	340	340	340	340					366
19. ANOHR EQUATION	ANOHR = NOF ( -17.276 ) + 12,362												

ORIGINAL SHEET NO. 8.401.17A  
TAMPA ELECTRIC COMPANY

ACTUAL UNIT PERFORMANCE DATA

JANUARY 2018 - DECEMBER 2018

PLANT/UNIT	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	PERIOD
BIG BEND 3	JAN 18	FEB 18	MAR 18	APR 18	MAY 18	JUN 18	JUL 18	AUG 18	SEP 18	OCT 18	NOV 18	DEC 18	2018
1. EAF (%)	57.3	35.3	30.7	66.2	91.3	95.6	95.7	94.3					70.9
2. PH	744	672	743	720	744	720	744	744					5831
3. SH	492.1	390.2	384.5	540.9	679.6	691.9	664.0	741.1					4584.3
4. RSH	0.0	23.6	0.0	0.0	0.0	28.1	50.1	0.0					101.8
5. UH	251.9	258.2	358.5	179.1	64.4	0.0	29.9	2.9					1144.9
6. POH	0.0	0.0	358.5	112.3	0.0	0.0	0.0	0.0					470.8
7. FOH	251.9	258.2	0.0	0.0	64.4	0.0	0.8	2.9					578.2
8. MOH	0.0	0.0	0.0	66.8	0.0	0.0	29.2	0.0					95.9
9. PFOH	744.0	672.0	743.0	645.0	1.7	264.4	57.2	141.1					3268.3
10. LR PF (MW)	35.3	105.2	84.2	38.8	40.0	46.4	0.0	96.9					64.4
11. PMOH	0.0	0.0	0.0	2.0	0.0	2.4	2.7	0.0					7.1
12. LR PM (MW)	0.0	0.0	0.0	120.0	0.0	120.0	240.0	0.0					165.3
13. NSC (MW)	400	400	400	395	395	395	345	345					384
14. OPR BTU(GBTU)	1798.7949	987.5843	1084.0753	1965.2639	2635.8096	2359.6073	991.3420	1213.2032					13035.6806
15. NET GEN (MWH)	163854	85845	90768	181082	247448	219091	87639	100627					1176354
16. ANOHR BTU/KWH	10978	11504	11943	10853	10652	10770	11312	12056					11081
17. NOF (%)	83.2	55.0	59.0	84.8	92.2	80.2	38.3	39.4					66.8
18. NPC (MW)	400	400	400	395	395	395	345	345					384
19. ANOHR EQUATION	ANOHR = NOF ( -17.826 ) + 12,060												

2

ORIGINAL SHEET NO. 8.401.17A  
TAMPA ELECTRIC COMPANY

ACTUAL UNIT PERFORMANCE DATA

JANUARY 2018 - DECEMBER 2018

PLANT/UNIT	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	PERIOD
BIG BEND 4	JAN 18	FEB 18	MAR 18	APR 18	MAY 18	JUN 18	JUL 18	AUG 18	SEP 18	OCT 18	NOV 18	DEC 18	2018
1. EAF (%)	78.7	13.1	8.0	87.7	68.2	60.1	80.3	78.5					59.8
2. PH	744	672	743	720	744	720	744	744					5831
3. SH	744.0	69.0	59.2	720.0	635.9	523.4	744.0	744.0					4239.6
4. RSH	0.0	147.0	0.0	0.0	0.0	0.0	0.0	0.0					147.0
5. UH	0.0	456.0	683.8	0.0	108.1	196.6	0.0	0.0					1444.4
6. POH	0.0	456.0	683.8	0.0	0.0	0.0	0.0	0.0					1139.8
7. FOH	0.0	0.0	0.0	0.0	108.1	196.6	0.0	0.0					304.7
8. MOH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					0.0
9. PFOH	744.0	672.0	743.0	720.0	744.0	720.0	744.0	744.0					5831.0
10. LR PF (MW)	94.0	84.2	0.0	52.8	74.0	54.2	81.8	93.9					66.8
11. PMOH	0.0	0.0	0.0	6.3	5.9	5.0	16.4	0.0					33.8
12. LR PM (MW)	0.0	0.0	0.0	119.5	171.1	113.8	199.1	0.0					166.5
13. NSC (MW)	442	442	442	437	437	437	437	437					439
14. OPR BTU(GBTU)	2713.8402	129.6618	163.7140	2755.0214	2397.7246	1977.6829	2766.8860	2680.4266					15584.9575
15. NET GEN (MWH)	254243	13470	15848	260531	213939	181524	249646	247319					1436520
16. ANOHR BTU/KWH	10674	9626	10330	10575	11208	10895	11083	10838					10849
17. NOF (%)	77.3	44.2	60.5	82.8	77.0	79.4	76.8	76.1					77.2
18. NPC (MW)	442	442	442	437	437	437	437	437					439
19. ANOHR EQUATION	ANOHR = NOF ( -12.371 ) + 11,518												



ORIGINAL SHEET NO. 8.401.18A  
TAMPA ELECTRIC COMPANY

ACTUAL UNIT PERFORMANCE DATA

JANUARY 2018 - DECEMBER 2018

PLANT/UNIT	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	PERIOD
POLK 1	JAN 18	FEB 18	MAR 18	APR 18	MAY 18	JUN 18	JUL 18	AUG 18	SEP 18	OCT 18	NOV 18	DEC 18	2018
1. EAF (%)	75.1	97.1	49.1	72.8	82.9	89.6	89.1	97.1					81.5
2. PH	744	672	743	720	744	720	744	744					5831
3. SH	567.8	669.2	384.2	454.4	648.7	603.2	708.1	740.3					4775.7
4. RSH	0.0	0.0	12.6	136.7	47.5	108.8	0.0	0.0					305.6
5. UH	176.2	2.8	346.2	129.0	47.8	8.0	35.9	3.8					749.7
6. POH	0.0	0.0	147.2	0.0	0.0	0.0	0.0	0.0					147.2
7. FOH	176.2	2.8	199.0	95.3	3.3	8.0	35.9	3.8					524.3
8. MOH	0.0	0.0	0.0	33.6	44.5	0.0	0.0	0.0					78.1
9. PFOH	236.6	121.2	171.5	720.0	744.0	577.2	239.6	100.9					2910.9
10. LR PF (MW)	8.2	29.8	30.0	20.5	23.4	25.6	46.4	44.0					25.1
11. PMOH	0.0	0.0	420.7	0.0	0.0	0.0	0.0	0.0					420.7
12. LR PM (MW)	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0					4.4
13. NSC (MW)	220	220	220	220	220	220	245	245					226
14. OPR BTU(GBTU)	1332.1999	1559.7320	703.7845	552.8960	629.9650	969.9011	1435.0611	1760.5749					8944.1146
15. NET GEN (MWH)	126117	152887	69570	60461	67992	79644	141705	167216					865592
16. ANOHR BTU/KWH	10563	10202	10116	9145	9265	12178	10127	10529					10333
17. NOF (%)	101.0	103.9	82.3	60.5	47.6	60.0	81.7	92.2					80.1
18. NPC (MW)	220	220	220	220	220	220	245	245					226
19. ANOHR EQUATION	ANOHR = NOF ( 16.584 ) + 8,334												

ORIGINAL SHEET NO. 8.401.18A  
TAMPA ELECTRIC COMPANY

ACTUAL UNIT PERFORMANCE DATA

JANUARY 2018 - DECEMBER 2018

PLANT/UNIT	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	PERIOD
POLK 2 CC	JAN 18	FEB 18	MAR 18	APR 18	MAY 18	JUN 18	JUL 18	AUG 18	SEP 18	OCT 18	NOV 18	DEC 18	2018
1. EAF (%)	89.0	92.9	97.6	98.9	88.6	99.9	99.8	0.0					95.8
2. PH	744	672	743	720	744	720	744	744					5831
3. SH	743.0	672.0	743.0	720.0	656.7	720.0	744.0	741.0					5739.7
4. RSH	44.6	29.5	6.8	35.7	105.1	15.8	13.5	30.9					281.8
5. UH	42.5	47.3	10.6	4.4	79.9	0.0	0.0	1.7					186.4
6. POH	20.6	47.3	5.6	0.0	0.0	0.0	0.0	0.0					73.5
7. FOH	11.8	0.0	5.1	4.4	6.0	0.0	0.0	0.5					27.7
8. MOH	10.1	0.0	0.0	0.0	73.9	0.0	0.0	1.2					85.2
9. PFOH	656.7	0.9	91.8	30.4	6.2	6.1	6.0	4.9					803.0
10. LR PF (MW)	33.9	125.0	95.2	115.0	108.9	42.9	235.0	106.0					46.7
11. PMOH	204.7	315.3	37.3	0.0	49.5	5.8	0.0	0.0					612.5
12. LR PM (MW)	123.0	0.0	0.0	0.0	95.5	115.0	0.0	0.0					49.9
13. NSC (MW)	1200	1200	1200	1061	1061	1061	1061	1061					1113
14. OPR BTU(GBTU)	4009.5850	3482.8960	4694.5570	4117.4190	3268.5620	4321.0599	4692.8080	4404.2980					32991.1849
15. NET GEN (MWH)	586465	538133	728981	634576	473543	648403	674389	634827					4919317
16. ANOHR BTU/KWH	6837	6472	6440	6488	6902	6664	6959	6938					6706
17. NOF (%)	65.8	66.7	81.8	83.1	68.0	84.9	85.4	80.7					77.0
18. NPC (MW)	1200	1200	1200	1061	1061	1061	1061	1061					1113
19. ANOHR EQUATION	ANOHR = NOF (-13.653) + 8,424												

5



ORIGINAL SHEET NO. 8.401.18A  
TAMPA ELECTRIC COMPANY

ACTUAL UNIT PERFORMANCE DATA

JANUARY 2018 - DECEMBER 2018

PLANT/UNIT	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	PERIOD
BAYSIDE UNIT 1	JAN 18	FEB 18	MAR 18	APR 18	MAY 18	JUN 18	JUL 18	AUG 18	SEP 18	OCT 18	NOV 18	DEC 18	2018
1. EAF (%)	96.9	99.7	97.8	57.2	99.2	100.0	100.0	97.5					93.6
2. PH	744	672	743	720	744	720	744	744					5831
3. SH	670.6	672.0	743.0	422.0	744.0	720.0	744.0	734.0					5449.6
4. RSH	58.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0					58.5
5. UH	15.0	0.0	8.3	298.4	0.0	0.0	0.0	10.2					331.8
6. POH	0.0	0.0	0.0	298.4	0.0	0.0	0.0	0.0					298.4
7. FOH	0.0	0.0	8.3	0.0	0.0	0.0	0.0	1.6					9.9
8. MOH	15.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5					23.5
9. PFOH	39.6	10.0	19.4	10.3	9.2	0.0	0.0	0.0					88.5
10. LR PF (MW)	82.0	82.0	82.0	79.0	69.3	0.0	0.0	0.0					80.3
11. PMOH	39.9	9.9	55.6	48.8	45.0	0.0	0.0	75.6					274.9
12. LR PM (MW)	82.0	82.0	82.0	128.2	79.0	0.0	0.0	79.0					88.9
13. NSC (MW)	792	792	792	701	701	701	701	701					735
14. OPR BTU(GBTU)	1633.0960	2454.5140	2329.2960	1223.2730	2130.9140	2323.0760	2270.9850	2084.9620					16450.1160
15. NET GEN (MWH)	217843	332848	308710	162902	285477	306014	307294	281179					2202268
16. ANOHR (BTU/KWH)	7497	7374	7545	7509	7464	7591	7390	7415					7470
17. NOF (%)	41.0	62.5	52.5	55.1	54.7	60.6	58.9	54.6					55.0
18. NPC (MW)	792	792	792	701	701	701	701	701					735
19. ANOHR EQUATION	ANOHR = NOF ( -1.982 ) + 7,468												

ORIGINAL SHEET NO. 8.401.18A  
TAMPA ELECTRIC COMPANY

ACTUAL UNIT PERFORMANCE DATA

JANUARY 2018 - DECEMBER 2018

PLANT/UNIT	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	MONTH OF:	PERIOD
BAYSIDE UNIT 2	JAN 18	FEB 18	MAR 18	APR 18	MAY 18	JUN 18	JUL 18	AUG 18	SEP 18	OCT 18	NOV 18	DEC 18	2018
1. EAF (%)	89.7	0.0	0.0	55.2	93.9	97.0	97.5	97.1					67.1
2. PH	744	672	743	720	744	720	744	744					5831
3. SH	695.6	0.0	0.0	405.0	708.2	720.0	743.0	736.0					4007.8
4. RSH	0.0	0.0	0.0	12.8	0.0	0.0	0.0	0.0					12.8
5. UH	58.1	672.0	743.0	317.4	40.8	0.0	1.0	7.5					1839.8
6. POH	12.6	672.0	743.0	290.4	0.0	0.0	0.0	0.0					1718.0
7. FOH	45.5	0.0	0.0	27.0	0.0	0.0	1.0	7.5					81.0
8. MOH	0.0	0.0	0.0	0.0	40.8	0.0	0.0	0.0					40.8
9. PFOH	9.4	0.0	0.0	65.5	51.0	0.0	3.8	0.9					130.5
10. LR PF (MW)	79.0	0.0	0.0	74.3	77.0	0.0	77.0	77.0					75.8
11. PMOH	231.8	0.0	0.0	3.5	8.3	272.0	475.6	176.2					1167.4
12. LR PM (MW)	79.3	0.0	0.0	77.0	77.0	72.7	34.2	75.5					58.8
13. NSC (MW)	1047	1047	1047	929	929	929	929	929					973
14. OPR BTU(GBTU)	1818.3620	0.0000	0.0000	1418.0970	2605.2610	2515.5910	2584.7760	2907.1750					13849.2620
15. NET GEN (MWH)	232588	-3128	-3411	187162	347726	330641	349617	392400					1833595
16. ANOHR (BTU/KWH)	7818	0	0	7577	7492	7608	7393	7409					7553
17. NOF (%)	31.9	0.0	0.0	49.7	52.9	49.4	50.7	57.4					47.0
18. NPC (MW)	1047	1047	1047	929	929	929	929	929					973
19. ANOHR EQUATION	ANOHR = NOF ( -4.675 ) + 7,715												

7

**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

**Unit: BIG BEND 2      MDC: 410      Run Date: 9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC
31	Reserve Shutdown	07/13/2018	03:56:00	08/06/2018	04:00:00	124	0	0000	UNKN	RESERVE SHUTDOWN
34	Maintenance Outage	08/06/2018	04:00:00	08/09/2018	07:00:00	75	0	1512	BLR	B ID Fan outlet duct expansion joint repair
35	Reserve Shutdown	08/09/2018	07:00:00	08/17/2018	03:58:00	188.97	0	0000	UNKN	RESERVE SHUTDOWN
36	Partial Forced Postponed	08/20/2018	23:15:00	08/21/2018	10:48:00	11.55	180	3113	COND	B Condenser cleaning
37	Partial Maintenance	08/21/2018	23:10:00	08/22/2018	00:05:00	0.92	120	4268	TURB	Main turbine valve testing
38	Partial Maintenance	08/29/2018	00:28:00	08/29/2018	00:47:00	0.32	120	4268	TURB	Main turbine valve testing

**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

**Unit: BIG BEND 3      MDC: 420      Run Date: 9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC
44	Partial Forced Immed	08/08/2018	13:10:00	08/09/2018	10:00:00	20.83	250	3240	BLPT	B Cooling tower fan motor grounded
45	Partial Forced Immed	08/16/2018	08:15:00	08/17/2018	21:20:00	37.08	300	1470	BLR	B ID Fan VFD coolant leak
46	Partial Forced Delayed	08/21/2018	21:00:00	08/24/2018	19:00:00	70	250	3240	BLPT	B Cooling tower fan blade pitch issues
47	Partial Forced Immed	08/28/2018	05:30:00	08/28/2018	18:40:00	13.17	250	3240	BLPT	B Cooling tower fan blade pitch issues
48	Full Forced Immed	08/29/2018	15:24:00	08/29/2018	18:19:00	2.92	0	0359	BLR	1S Igniter trifecta valve stuck (MFT)

**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

Unit:		BIG BEND 4		MDC:		470		Run Date:		9/10/2018	
Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description	
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC	
46	Partial Forced Immed	06/22/2018	09:00:00	01/01/2019	00:00:00	127	400	8299	POLL	C Booster fan amp limits	
46	Partial Forced Immed	06/22/2018	09:00:00	01/01/2019	00:00:00	13.17	400	8299	POLL	C Booster fan amp limits	
46	Partial Forced Immed	06/22/2018	09:00:00	01/01/2019	00:00:00	8.83	400	8299	POLL	C Booster fan amp limits	
46	Partial Forced Immed	06/22/2018	09:00:00	01/01/2019	00:00:00	200.83	400	8299	POLL	C Booster fan amp limits	
46	Partial Forced Immed	06/22/2018	09:00:00	01/01/2019	00:00:00	129	400	8299	POLL	C Booster fan amp limits	
46	Partial Forced Immed	06/22/2018	09:00:00	01/01/2019	00:00:00	9.08	400	8299	POLL	C Booster fan amp limits	
46	Partial Forced Immed	06/22/2018	09:00:00	01/01/2019	00:00:00	16.33	400	8299	POLL	C Booster fan amp limits	
46	Partial Forced Immed	06/22/2018	09:00:00	01/01/2019	00:00:00	7.17	400	8299	POLL	C Booster fan amp limits	
46	Partial Forced Immed	06/22/2018	09:00:00	01/01/2019	00:00:00	17.42	400	8299	POLL	C Booster fan amp limits	
46	Partial Forced Immed	06/22/2018	09:00:00	01/01/2019	00:00:00	5.22	400	8299	POLL	C Booster fan amp limits	
46	Partial Forced Immed	06/22/2018	09:00:00	01/01/2019	00:00:00	209.95	400	8299	POLL	C Booster fan amp limits	
59	Partial Forced Immed	07/24/2018	14:30:00	01/01/2019	00:00:00	127	390	1455	BLR	ID Fans high amp limits	
59	Partial Forced Immed	07/24/2018	14:30:00	01/01/2019	00:00:00	13.17	390	1455	BLR	ID Fans high amp limits	
59	Partial Forced Immed	07/24/2018	14:30:00	01/01/2019	00:00:00	8.83	390	1455	BLR	ID Fans high amp limits	
59	Partial Forced Immed	07/24/2018	14:30:00	01/01/2019	00:00:00	200.83	390	1455	BLR	ID Fans high amp limits	
59	Partial Forced Immed	07/24/2018	14:30:00	01/01/2019	00:00:00	129	390	1455	BLR	ID Fans high amp limits	
59	Partial Forced Immed	07/24/2018	14:30:00	01/01/2019	00:00:00	9.08	390	1455	BLR	ID Fans high amp limits	
59	Partial Forced Immed	07/24/2018	14:30:00	01/01/2019	00:00:00	16.33	390	1455	BLR	ID Fans high amp limits	
59	Partial Forced Immed	07/24/2018	14:30:00	01/01/2019	00:00:00	7.17	390	1455	BLR	ID Fans high amp limits	
59	Partial Forced Immed	07/24/2018	14:30:00	01/01/2019	00:00:00	17.42	390	1455	BLR	ID Fans high amp limits	
59	Partial Forced Immed	07/24/2018	14:30:00	01/01/2019	00:00:00	5.22	390	1455	BLR	ID Fans high amp limits	
59	Partial Forced Immed	07/24/2018	14:30:00	01/01/2019	00:00:00	209.95	390	1455	BLR	ID Fans high amp limits	
62	Partial Forced Immed	07/30/2018	05:50:00	08/06/2018	07:00:00	127	370	8845	CO	High CO limit	
63	Partial Forced Immed	08/06/2018	07:00:00	08/15/2018	13:50:00	13.17	375	8845	CO	High CO limit	
63	Partial Forced Immed	08/06/2018	07:00:00	08/15/2018	13:50:00	8.83	375	8845	CO	High CO limit	
63	Partial Forced Immed	08/06/2018	07:00:00	08/15/2018	13:50:00	200.83	375	8845	CO	High CO limit	
64	Partial Forced Immed	08/06/2018	20:10:00	08/07/2018	05:00:00	8.83	335	8125	POLL	D2 Absorber feed pump belts failure. Decreased efficie	
66	Partial Forced Postponed	08/20/2018	22:50:00	08/21/2018	07:55:00	9.08	200	3113	COND	A & C Condenser waterbox scraping	
67	Partial Forced Postponed	08/22/2018	00:15:00	08/22/2018	07:25:00	7.17	200	3113	COND	A Condenser tube cleaning	
68	Partial Forced Postponed	08/23/2018	00:50:00	08/23/2018	06:03:00	5.22	200	3113	COND	C Condenser tube cleaning	

**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

**Unit: POLK 1      MDC: 290      Run Date: 9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC
44	Partial Forced Immed	07/29/2018	15:29:00	08/01/2018	17:21:00	17.35	200	6399	GASF	Scrubber Circulation Pump Seal failed, transferred GTC
45	Partial Forced Immed	08/03/2018	13:02:00	08/03/2018	15:51:00	2.82	250	6399	GASF	GTG Syngas Y strainer required cleaning
46	Partial Forced Immed	08/03/2018	16:00:00	08/03/2018	19:50:00	3.83	250	6399	GASF	"A" Scrubber Raw Gas Flare Valve lifting too early, req
47	Partial Forced Immed	08/06/2018	06:20:00	08/06/2018	09:15:00	2.92	250	6399	GASF	GTG Syngas Y strainer required cleaning
48	Partial Forced Immed	08/06/2018	19:05:00	08/07/2018	02:24:00	7.32	200	6399	GASF	Gasofer tripped RSC HP Circulation Pump trip
49	Partial Forced Immed	08/10/2018	19:02:00	08/10/2018	21:30:00	2.47	250	6399	GASF	Syngas Y strainer required cleaning
50	Partial Forced Immed	08/13/2018	20:14:00	08/13/2018	22:12:00	1.97	250	6399	GASF	GTG Syngas Y strainer required cleaning
51	Partial Forced Immed	08/14/2018	09:13:00	08/14/2018	13:23:00	3.75	250	6399	GASF	GTG Syngas Y strainer required cleaning
51	Partial Forced Immed	08/14/2018	09:13:00	08/14/2018	13:23:00	0.42	250	6399	GASF	GTG Syngas Y strainer required cleaning
52	Full Forced Immed	08/14/2018	09:13:00	08/14/2018	12:58:00	3.75	0	5250	GAST	GTG Tripped, Gasifier continued to run
53	Partial Forced Immed	08/16/2018	08:20:00	08/16/2018	11:04:00	2.73	250	6399	GASF	GTG Syngas Y strainer required cleaning
54	Partial Forced Immed	08/21/2018	01:42:00	08/21/2018	04:33:00	2.85	250	6399	GASF	GTG Syngas Y strainer required cleaning
55	Partial Forced Immed	08/23/2018	20:58:00	08/23/2018	23:16:00	2.3	250	6399	GASF	GTG Syngas Y strainer required cleaning
56	Partial Forced Immed	08/28/2018	16:52:00	08/28/2018	19:22:00	2.5	250	6399	GASF	GTG Syngas Y strainer required cleaning
57	Partial Forced Immed	08/16/2018	16:20:00	08/18/2018	16:00:00	47.67	300	6399	GASF	COS Reactor pluggage reducing downstream pressure

11

**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

**Unit: POLK 2ST      MDC: 479      Run Date: 9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC
48	Maintenance Outage	08/10/2018	23:56:00	08/11/2018	02:41:00	2.75	0	4263	TURB	STG2 Reheat Stop Valve Position Indicator failed, req
49	Partial Forced Immed	08/06/2018	09:06:00	08/06/2018	10:22:00	1.27	374	6000	COMB	HRSG3 Attemperator failed to open, GTG3 tripped
49	Partial Forced Immed	12/06/2017	09:00:00	08/06/2018	10:22:00	1.27	469	6000	COMB	Duct Burner Isolation failed to hold, flue gas in fuel pip
50	Partial Forced Immed	08/06/2018	17:30:00	08/06/2018	18:05:00	0.58	419	6299	COMB	Ft Greene Gas Regulators issuses, Duct burners for H
51	Partial Forced Immed	08/19/2018	07:42:00	08/19/2018	08:47:00	1.08	360	3261	BLPT	Fish in traveling Screen caused Circulating Water Purr
52	Partial Forced Immed	08/20/2018	08:24:00	08/20/2018	10:22:00	1.97	359	4609	GEN	GTG4 Exciter failure, failed to start with LCI

**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

**Unit: POLK 2      MDC: 151      Run Date: 9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC
47	Reserve Shutdown	08/10/2018	21:28:00	08/11/2018	09:16:00	11.8	0	0000	UNKN	Reserve Shutdown, Shutdown for STG2 Reheat Valve
48	Reserve Shutdown	08/17/2018	00:55:00	08/17/2018	09:58:00	9.05	0	0000	UNKN	RESERVE SHUTDOWN
49	Reserve Shutdown	08/27/2018	21:13:00	08/28/2018	07:59:00	10.77	0	0000	UNKN	RESERVE SHUTDOWN
50	Reserve Shutdown	08/29/2018	23:23:00	08/30/2018	06:18:00	6.92	0	0000	UNKN	RESERVE SHUTDOWN



**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

**Unit: POLK 3      MDC: 151      Run Date: 9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC
49	Reserve Shutdown	08/06/2018	01:30:00	08/06/2018	08:39:00	7.15	0	0000	UNKN	RESERVE SHUTDOWN
50	Full Forced Immed	08/06/2018	09:06:00	08/06/2018	10:22:00	1.27	0	6299	COMB	HRSG3 Low IP Drum level, valves in manual for attem
51	Reserve Shutdown	08/25/2018	01:16:00	08/25/2018	09:23:00	8.12	0	0000	UNKN	RESERVE SHUTDOWN
52	Reserve Shutdown	08/26/2018	06:02:00	08/26/2018	12:37:00	6.58	0	0000	UNKN	RESERVE SHUTDOWN
53	Reserve Shutdown	08/27/2018	00:42:00	08/27/2018	09:03:00	8.35	0	0000	UNKN	RESERVE SHUTDOWN
54	Reserve Shutdown	08/29/2018	00:21:00	08/29/2018	10:33:00	10.2	0	0000	UNKN	RESERVE SHUTDOWN
55	Reserve Shutdown	08/31/2018	21:14:00	09/01/2018	08:38:00	2.77	0	0000	UNKN	RESERVE SHUTDOWN

**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

**Unit: POLK 4      MDC: 151      Run Date: 9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC
44	Reserve Shutdown	08/10/2018	22:15:00	08/11/2018	10:34:00	12.32	0	0000	UNKN	Reserve Shutdown, Shutdown for STG2 Reheat Valve
45	Reserve Shutdown	08/20/2018	01:03:00	08/20/2018	08:24:00	7.35	0	0000	UNKN	RESERVE SHUTDOWN
46	Reserve Shutdown	08/24/2018	01:28:00	08/24/2018	09:34:00	8.1	0	0000	UNKN	RESERVE SHUTDOWN
47	Reserve Shutdown	08/30/2018	22:18:00	08/31/2018	05:39:00	7.35	0	0000	UNKN	RESERVE SHUTDOWN
49	Startup Failure	08/20/2018	08:24:00	08/20/2018	10:22:00	1.97	0	4609	GEN	GTG4 Exciter failure, failed to start with LCI

**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

**Unit: POLK 5      MDC: 151      Run Date: 9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC
50	Reserve Shutdown	08/03/2018	00:50:00	08/03/2018	08:54:00	8.07	0	0000	UNKN	RESERVE SHUTDOWN
51	Reserve Shutdown	08/12/2018	01:44:00	08/12/2018	08:57:00	7.22	0	0000	UNKN	RESERVE SHUTDOWN
52	Reserve Shutdown	08/12/2018	23:28:00	08/13/2018	06:02:00	6.57	0	0000	UNKN	RESERVE SHUTDOWN
53	Reserve Shutdown	08/15/2018	00:28:00	08/15/2018	07:15:00	6.78	0	0000	UNKN	RESERVE SHUTDOWN
54	Reserve Shutdown	08/19/2018	04:30:00	08/19/2018	11:30:00	7	0	0000	UNKN	RESERVE SHUTDOWN
55	Reserve Shutdown	08/21/2018	02:09:00	08/21/2018	09:45:00	7.6	0	0000	UNKN	RESERVE SHUTDOWN
56	Reserve Shutdown	08/24/2018	23:22:00	08/25/2018	08:33:00	9.18	0	0000	UNKN	RESERVE SHUTDOWN
57	Reserve Shutdown	08/26/2018	01:34:00	08/26/2018	09:45:00	8.18	0	0000	UNKN	RESERVE SHUTDOWN
58	Reserve Shutdown	08/26/2018	19:22:00	08/27/2018	05:37:00	10.25	0	0000	UNKN	RESERVE SHUTDOWN
59	Reserve Shutdown	08/27/2018	21:30:00	08/28/2018	09:36:00	12.1	0	0000	UNKN	RESERVE SHUTDOWN
60	Reserve Shutdown	08/28/2018	23:31:00	08/29/2018	08:49:00	9.3	0	0000	UNKN	RESERVE SHUTDOWN
61	Reserve Shutdown	08/30/2018	00:52:00	08/30/2018	10:12:00	9.33	0	0000	UNKN	RESERVE SHUTDOWN

**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

**Unit: BAYSIDE ST1      MDC: 236      Run Date: 9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC
24	Full Forced Immed	08/04/2018	01:24:00	08/04/2018	03:01:00	1.62	0	4499	TURB	Operator error during OS valve test
25	Maintenance Outage	08/22/2018	21:46:00	08/23/2018	06:18:00	8.53	0	4899	GEN	ISOPHASE BUS DUCT MAINT
27	Partial Maintenance	08/29/2018	06:39:00	08/30/2018	18:12:00	35.55	157	6299	COMB	ST1 Derating - 1A Mark VI S-Core Card Replacement
28	Partial Maintenance	08/12/2018	02:56:00	08/13/2018	19:02:00	40.1	157	3834	BLPT	ST1 Derating - 1B Weld repair

**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

**Unit: BAYSIDE CT1A      MDC: 158      Run Date: 9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC
109	Reserve Shutdown	08/01/2018	00:00:00	08/01/2018	09:02:00	9.03	0	0000	UNKN	RESERVE SHUTDOWN
110	Reserve Shutdown	08/01/2018	19:59:00	08/02/2018	08:30:00	12.52	0	0000	UNKN	RESERVE SHUTDOWN
111	Reserve Shutdown	08/03/2018	00:00:00	08/03/2018	11:36:00	11.6	0	0000	UNKN	RESERVE SHUTDOWN
112	Reserve Shutdown	08/05/2018	18:15:00	08/06/2018	05:06:00	10.85	0	0000	UNKN	RESERVE SHUTDOWN
113	Reserve Shutdown	08/07/2018	02:10:00	08/07/2018	10:21:00	8.18	0	0000	UNKN	RESERVE SHUTDOWN
114	Reserve Shutdown	08/08/2018	00:38:00	08/08/2018	09:58:00	9.33	0	0000	UNKN	RESERVE SHUTDOWN
115	Reserve Shutdown	08/08/2018	22:00:00	08/09/2018	08:37:00	10.62	0	0000	UNKN	RESERVE SHUTDOWN
116	Reserve Shutdown	08/09/2018	21:29:00	08/10/2018	06:34:00	9.08	0	0000	UNKN	RESERVE SHUTDOWN
117	Reserve Shutdown	08/13/2018	21:44:00	08/14/2018	12:39:00	14.92	0	0000	UNKN	RESERVE SHUTDOWN
118	Reserve Shutdown	08/14/2018	19:19:00	08/15/2018	09:54:00	14.58	0	0000	UNKN	RESERVE SHUTDOWN
119	Reserve Shutdown	08/15/2018	18:33:00	08/16/2018	06:30:00	11.95	0	0000	UNKN	RESERVE SHUTDOWN
120	Reserve Shutdown	08/17/2018	00:12:00	08/17/2018	10:40:00	10.47	0	0000	UNKN	RESERVE SHUTDOWN
121	Reserve Shutdown	08/17/2018	21:43:00	08/18/2018	09:04:00	11.35	0	0000	UNKN	RESERVE SHUTDOWN
122	Reserve Shutdown	08/19/2018	21:35:00	08/20/2018	10:03:00	12.47	0	0000	UNKN	RESERVE SHUTDOWN
123	Reserve Shutdown	08/21/2018	00:30:00	08/21/2018	10:43:00	10.22	0	0000	UNKN	RESERVE SHUTDOWN
124	Reserve Shutdown	08/21/2018	20:09:00	08/22/2018	06:12:00	10.05	0	0000	UNKN	RESERVE SHUTDOWN
125	Maintenance Outage	08/22/2018	21:44:00	08/23/2018	12:09:00	14.42	0	3672	BLPT	Isophase bus duct maintenance
126	Reserve Shutdown	08/25/2018	17:49:00	08/26/2018	09:08:00	15.32	0	0000	UNKN	RESERVE SHUTDOWN
127	Reserve Shutdown	08/26/2018	21:41:00	08/27/2018	09:02:00	11.35	0	0000	UNKN	RESERVE SHUTDOWN
128	Reserve Shutdown	08/27/2018	23:08:00	08/28/2018	12:09:00	13.02	0	0000	UNKN	RESERVE SHUTDOWN
129	Reserve Shutdown	08/28/2018	18:41:00	08/29/2018	06:38:00	11.95	0	0000	UNKN	RESERVE SHUTDOWN
130	Maintenance Outage	08/29/2018	06:39:00	08/30/2018	18:12:00	35.55	0	6299	COMB	MARK VI S-CORE CARD REPLACEMENT
131	Reserve Shutdown	08/30/2018	18:13:00	08/31/2018	07:16:00	13.05	0	0000	UNKN	RESERVE SHUTDOWN

**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

**Unit: BAYSIDE CT1B      MDC: 158      Run Date: 9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC
100	Reserve Shutdown	08/03/2018	20:00:00	08/04/2018	09:02:00	13.03	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
101	Reserve Shutdown	08/06/2018	23:03:00	08/07/2018	08:33:00	9.5	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
102	Reserve Shutdown	08/11/2018	22:48:00	08/12/2018	09:41:00	10.88	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
103	Reserve Shutdown	08/12/2018	18:13:00	08/13/2018	02:55:00	8.7	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
104	Maintenance Outage	08/13/2018	02:56:00	08/13/2018	19:02:00	16.1	0	3834	BLPT weld repair	weld repair
105	Reserve Shutdown	08/13/2018	19:03:00	08/14/2018	07:08:00	12.08	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
106	Reserve Shutdown	08/14/2018	22:15:00	08/15/2018	11:42:00	13.45	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
107	Reserve Shutdown	08/17/2018	00:26:00	08/18/2018	10:45:00	34.32	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
108	Reserve Shutdown	08/19/2018	01:57:00	08/19/2018	09:49:00	7.87	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
109	Reserve Shutdown	08/21/2018	01:00:00	08/21/2018	11:53:00	10.88	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
110	Reserve Shutdown	08/22/2018	00:08:00	08/22/2018	11:19:00	11.18	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
111	Reserve Shutdown	08/22/2018	20:14:00	08/22/2018	21:43:00	1.48	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
112	Reserve Shutdown	08/23/2018	22:39:00	08/24/2018	12:24:00	13.75	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
113	Reserve Shutdown	08/24/2018	19:38:00	08/25/2018	12:23:00	16.75	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
114	Reserve Shutdown	08/26/2018	18:13:00	08/27/2018	11:22:00	17.15	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
115	Reserve Shutdown	08/28/2018	20:09:00	08/29/2018	05:28:00	9.32	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
116	Reserve Shutdown	08/29/2018	20:20:00	08/30/2018	11:05:00	14.75	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
117	Reserve Shutdown	08/31/2018	19:01:00	08/31/2018	23:59:00	4.97	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN
119	Maintenance Outage	08/22/2018	21:44:00	08/23/2018	07:31:00	9.78	0	3672	BLPT Isophase bus duct maintenance	Isophase bus duct maintenance
120	Reserve Shutdown	08/23/2018	07:32:00	08/23/2018	10:40:00	3.13	0	0000	UNKN RESERVE SHUTDOWN	RESERVE SHUTDOWN

**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

**Unit: BAYSIDE CT1C      MDC: 158      Run Date: 9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC
117	Reserve Shutdown	08/01/2018	00:44:00	08/01/2018	10:22:00	9.63	0	0000	UNKN	RESERVE SHUTDOWN
118	Reserve Shutdown	08/02/2018	00:28:00	08/02/2018	10:44:00	10.27	0	0000	UNKN	RESERVE SHUTDOWN
119	Reserve Shutdown	08/02/2018	21:29:00	08/03/2018	09:20:00	11.85	0	0000	UNKN	RESERVE SHUTDOWN
120	Reserve Shutdown	08/04/2018	00:00:00	08/04/2018	09:51:00	9.85	0	0000	UNKN	RESERVE SHUTDOWN
121	Reserve Shutdown	08/05/2018	00:11:00	08/05/2018	10:40:00	10.48	0	0000	UNKN	RESERVE SHUTDOWN
122	Reserve Shutdown	08/05/2018	23:03:00	08/06/2018	10:03:00	11	0	0000	UNKN	RESERVE SHUTDOWN
123	Reserve Shutdown	08/07/2018	21:46:00	08/08/2018	11:36:00	13.83	0	0000	UNKN	RESERVE SHUTDOWN
124	Reserve Shutdown	08/08/2018	23:53:00	08/09/2018	10:14:00	10.35	0	0000	UNKN	RESERVE SHUTDOWN
125	Reserve Shutdown	08/09/2018	23:45:00	08/10/2018	09:43:00	9.97	0	0000	UNKN	RESERVE SHUTDOWN
126	Reserve Shutdown	08/11/2018	02:43:00	08/12/2018	11:39:00	32.93	0	0000	UNKN	RESERVE SHUTDOWN
127	Reserve Shutdown	08/13/2018	00:58:00	08/13/2018	09:20:00	8.37	0	0000	UNKN	RESERVE SHUTDOWN
128	Reserve Shutdown	08/16/2018	00:32:00	08/16/2018	09:34:00	9.03	0	0000	UNKN	RESERVE SHUTDOWN
129	Reserve Shutdown	08/16/2018	22:27:00	08/17/2018	06:08:00	7.68	0	0000	UNKN	RESERVE SHUTDOWN
130	Reserve Shutdown	08/19/2018	00:39:00	08/19/2018	08:27:00	7.8	0	0000	UNKN	RESERVE SHUTDOWN
131	Reserve Shutdown	08/19/2018	18:54:00	08/20/2018	06:01:00	11.12	0	0000	UNKN	RESERVE SHUTDOWN
132	Reserve Shutdown	08/22/2018	19:42:00	08/22/2018	21:43:00	2.02	0	0000	UNKN	RESERVE SHUTDOWN
133	Reserve Shutdown	08/24/2018	00:02:00	08/24/2018	10:35:00	10.55	0	0000	UNKN	RESERVE SHUTDOWN
134	Reserve Shutdown	08/24/2018	17:14:00	08/25/2018	10:08:00	16.9	0	0000	UNKN	RESERVE SHUTDOWN
135	Reserve Shutdown	08/25/2018	19:12:00	08/26/2018	11:46:00	16.57	0	0000	UNKN	RESERVE SHUTDOWN
136	Reserve Shutdown	08/28/2018	00:27:00	08/28/2018	11:00:00	10.55	0	0000	UNKN	RESERVE SHUTDOWN
137	Reserve Shutdown	08/30/2018	19:14:00	08/31/2018	10:49:00	15.58	0	0000	UNKN	RESERVE SHUTDOWN
138	Reserve Shutdown	08/31/2018	17:12:00	08/31/2018	23:59:00	6.78	0	0000	UNKN	RESERVE SHUTDOWN
140	Maintenance Outage	08/22/2018	21:44:00	08/23/2018	07:31:00	9.78	0	3672	BLPT	Isophase bus duct maintenance

**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

**Unit: BAYSIDE ST2      MDC: 308      Run Date: 9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC
45	Full Forced Immed	08/20/2018	20:08:00	08/21/2018	00:30:00	4.37	0	4499	TURB	air removal pump failure
46	Full Forced Immed	08/29/2018	14:30:00	08/29/2018	17:39:00	3.15	0	3829	BLPT	Discharge valve closed on CT aux cooling water pp ca
47	Partial Forced Immed	08/02/2018	15:40:00	08/02/2018	16:32:00	0.87	231	5073	GAST	ST2 Derating - 2A Loss of flame trip
48	Partial Maintenance	08/04/2018	10:10:00	08/05/2018	05:30:00	19.33	231	5246	GAST	ST2 Derating - 2A Mark VI card replacement
49	Partial Maintenance	08/11/2018	20:11:00	08/13/2018	09:56:00	37.75	231	5246	GAST	ST2 Derating - 2A Mark VI S-core card replacement
50	Partial Maintenance	08/16/2018	06:25:00	08/20/2018	07:00:00	96.58	231	3832	BLPT	ST2 Derating - 2D Boiler tube leak repairs
51	Partial Maintenance	08/20/2018	22:46:00	08/20/2018	23:23:00	0.62	231	6299	COMB	ST2 Derating - 2D Drum level swinging due to ST trip -
52	Partial Maintenance	08/29/2018	14:45:00	08/30/2018	12:38:00	2.9	231	6299	COMB	ST2 Derating - 2D CRH line needed to be placed back
52	Partial Maintenance	08/29/2018	14:45:00	08/30/2018	12:38:00	18.98	231	6299	COMB	ST2 Derating - 2D CRH line needed to be placed back



**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

Unit: **BAYSIDE CT2A**      MDC: **158**      Run Date: **9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC
86	Reserve Shutdown	08/01/2018	00:00:00	08/01/2018	09:49:00	9.82	0	0000	UNKN	RESERVE SHUTDOWN
87	Reserve Shutdown	08/01/2018	22:10:00	08/02/2018	09:43:00	11.55	0	0000	UNKN	RESERVE SHUTDOWN
88	Full Forced Immed	08/02/2018	15:40:00	08/02/2018	16:32:00	0.87	0	5073	GAST	Loss of flame trip
89	Reserve Shutdown	08/02/2018	20:00:00	08/03/2018	12:15:00	16.25	0	0000	UNKN	RESERVE SHUTDOWN
90	Reserve Shutdown	08/03/2018	22:03:00	08/04/2018	10:09:00	12.1	0	0000	UNKN	RESERVE SHUTDOWN
91	Planned Outage	08/04/2018	10:10:00	08/05/2018	05:30:00	19.33	0	5248	GAST	Mark VI card R/R
92	Reserve Shutdown	08/05/2018	05:31:00	08/05/2018	09:49:00	4.3	0	0000	UNKN	RESERVE SHUTDOWN
93	Reserve Shutdown	08/05/2018	21:59:00	08/06/2018	11:17:00	13.3	0	0000	UNKN	RESERVE SHUTDOWN
94	Reserve Shutdown	08/06/2018	23:46:00	08/07/2018	11:04:00	11.3	0	0000	UNKN	RESERVE SHUTDOWN
95	Reserve Shutdown	08/07/2018	20:12:00	08/08/2018	08:56:00	12.73	0	0000	UNKN	RESERVE SHUTDOWN
96	Reserve Shutdown	08/09/2018	23:00:00	08/10/2018	09:08:00	10.13	0	0000	UNKN	RESERVE SHUTDOWN
97	Reserve Shutdown	08/11/2018	19:41:00	08/11/2018	20:10:00	0.48	0	0000	UNKN	RESERVE SHUTDOWN
98	Planned Outage	08/11/2018	20:11:00	08/13/2018	09:56:00	37.75	0	5248	GAST	Mark VI "S" core card R/R
99	Reserve Shutdown	08/13/2018	22:41:00	08/14/2018	10:51:00	12.17	0	0000	UNKN	RESERVE SHUTDOWN
100	Reserve Shutdown	08/14/2018	21:15:00	08/15/2018	10:51:00	13.6	0	0000	UNKN	RESERVE SHUTDOWN
101	Reserve Shutdown	08/15/2018	19:48:00	08/16/2018	10:43:00	14.92	0	0000	UNKN	RESERVE SHUTDOWN
102	Reserve Shutdown	08/16/2018	23:14:00	08/17/2018	10:33:00	11.32	0	0000	UNKN	RESERVE SHUTDOWN
103	Reserve Shutdown	08/17/2018	23:24:00	08/18/2018	09:52:00	10.47	0	0000	UNKN	RESERVE SHUTDOWN
104	Reserve Shutdown	08/18/2018	21:01:00	08/19/2018	09:01:00	12	0	0000	UNKN	RESERVE SHUTDOWN
105	Reserve Shutdown	08/19/2018	23:46:00	08/20/2018	12:14:00	12.47	0	0000	UNKN	RESERVE SHUTDOWN
106	Full Forced Immed	08/20/2018	20:46:00	08/21/2018	00:30:00	3.73	0	3839	BLPT	Steam trubine tripped - low vacuum
107	Reserve Shutdown	08/22/2018	00:58:00	08/22/2018	15:11:00	14.22	0	0000	UNKN	RESERVE SHUTDOWN
108	Reserve Shutdown	08/22/2018	19:12:00	08/23/2018	06:27:00	11.25	0	0000	UNKN	RESERVE SHUTDOWN
109	Reserve Shutdown	08/24/2018	00:59:00	08/24/2018	11:35:00	10.6	0	0000	UNKN	RESERVE SHUTDOWN
110	Reserve Shutdown	08/24/2018	18:36:00	08/25/2018	10:45:00	16.15	0	0000	UNKN	RESERVE SHUTDOWN
111	Reserve Shutdown	08/25/2018	18:22:00	08/26/2018	10:11:00	15.82	0	0000	UNKN	RESERVE SHUTDOWN
112	Reserve Shutdown	08/26/2018	18:34:00	08/27/2018	11:04:00	16.5	0	0000	UNKN	RESERVE SHUTDOWN
113	Reserve Shutdown	08/27/2018	23:28:00	08/28/2018	11:32:00	12.07	0	0000	UNKN	RESERVE SHUTDOWN
114	Reserve Shutdown	08/28/2018	17:30:00	08/29/2018	10:50:00	17.33	0	0000	UNKN	RESERVE SHUTDOWN
115	Full Forced Immed	08/29/2018	14:30:00	08/29/2018	17:39:00	3.15	0	3829	BLPT	CT aux cooling water pp discharge valve closed
116	Reserve Shutdown	08/29/2018	17:40:00	08/30/2018	05:41:00	12.02	0	0000	UNKN	RESERVE SHUTDOWN
117	Reserve Shutdown	08/30/2018	14:29:00	08/31/2018	10:06:00	19.62	0	0000	UNKN	RESERVE SHUTDOWN
118	Reserve Shutdown	08/31/2018	16:32:00	08/31/2018	23:59:00	7.45	0	0000	UNKN	RESERVE SHUTDOWN
120	Reserve Shutdown	08/21/2018	00:31:00	08/21/2018	07:13:00	6.7	0	0000	UNKN	RESERVE SHUTDOWN

22

**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

**Unit: BAYSIDE CT2B      MDC: 158      Run Date: 9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
82	Reserve Shutdown	08/01/2018	00:00:00	08/01/2018	11:39:00	11.65	0	0000	UNKN	RESERVE SHUTDOWN
83	Reserve Shutdown	08/01/2018	23:41:00	08/02/2018	11:46:00	12.08	0	0000	UNKN	RESERVE SHUTDOWN
84	Reserve Shutdown	08/02/2018	22:29:00	08/03/2018	10:29:00	12	0	0000	UNKN	RESERVE SHUTDOWN
85	Reserve Shutdown	08/04/2018	03:15:00	08/04/2018	10:16:00	7.02	0	0000	UNKN	RESERVE SHUTDOWN
86	Reserve Shutdown	08/04/2018	23:14:00	08/05/2018	11:35:00	12.35	0	0000	UNKN	RESERVE SHUTDOWN
87	Reserve Shutdown	08/06/2018	00:15:00	08/06/2018	09:28:00	9.22	0	0000	UNKN	RESERVE SHUTDOWN
88	Reserve Shutdown	08/07/2018	00:34:00	08/07/2018	09:17:00	8.72	0	0000	UNKN	RESERVE SHUTDOWN
89	Reserve Shutdown	08/07/2018	23:55:00	08/08/2018	10:59:00	11.07	0	0000	UNKN	RESERVE SHUTDOWN
90	Reserve Shutdown	08/08/2018	23:17:00	08/09/2018	10:59:00	11.7	0	0000	UNKN	RESERVE SHUTDOWN
91	Reserve Shutdown	08/09/2018	20:11:00	08/10/2018	11:39:00	15.47	0	0000	UNKN	RESERVE SHUTDOWN
92	Reserve Shutdown	08/11/2018	02:54:00	08/12/2018	11:02:00	32.13	0	0000	UNKN	RESERVE SHUTDOWN
93	Reserve Shutdown	08/12/2018	19:01:00	08/13/2018	11:23:00	16.37	0	0000	UNKN	RESERVE SHUTDOWN
94	Reserve Shutdown	08/14/2018	23:29:00	08/15/2018	12:42:00	13.22	0	0000	UNKN	RESERVE SHUTDOWN
95	Reserve Shutdown	08/15/2018	20:08:00	08/16/2018	08:47:00	12.65	0	0000	UNKN	RESERVE SHUTDOWN
96	Reserve Shutdown	08/18/2018	01:33:00	08/18/2018	11:20:00	9.78	0	0000	UNKN	RESERVE SHUTDOWN
97	Reserve Shutdown	08/18/2018	23:27:00	08/19/2018	10:48:00	11.35	0	0000	UNKN	RESERVE SHUTDOWN
98	Reserve Shutdown	08/19/2018	20:21:00	08/20/2018	09:12:00	12.85	0	0000	UNKN	RESERVE SHUTDOWN
99	Full Forced Immed	08/20/2018	21:03:00	08/21/2018	00:30:00	3.45	0	3839	BLPT	Steam turbine trip - low vacuum
100	Reserve Shutdown	08/22/2018	23:20:00	08/23/2018	11:11:00	11.85	0	0000	UNKN	RESERVE SHUTDOWN
101	Reserve Shutdown	08/23/2018	21:42:00	08/24/2018	05:51:00	8.15	0	0000	UNKN	RESERVE SHUTDOWN
102	Reserve Shutdown	08/24/2018	21:12:00	08/25/2018	13:05:00	15.88	0	0000	UNKN	RESERVE SHUTDOWN
103	Reserve Shutdown	08/25/2018	20:29:00	08/26/2018	13:03:00	16.57	0	0000	UNKN	RESERVE SHUTDOWN
104	Reserve Shutdown	08/26/2018	23:22:00	08/27/2018	12:29:00	13.12	0	0000	UNKN	RESERVE SHUTDOWN
105	Reserve Shutdown	08/28/2018	21:07:00	08/29/2018	12:25:00	15.3	0	0000	UNKN	RESERVE SHUTDOWN
106	Full Forced Immed	08/29/2018	14:30:00	08/29/2018	17:40:00	3.17	0	3829	BLPT	CT AUX COOLING WATER PP DISCHARGED VALV
107	Reserve Shutdown	08/29/2018	17:41:00	08/30/2018	12:05:00	18.4	0	0000	UNKN	RESERVE SHUTDOWN
108	Reserve Shutdown	08/31/2018	00:20:00	08/31/2018	12:14:00	11.9	0	0000	UNKN	RESERVE SHUTDOWN
109	Reserve Shutdown	08/31/2018	17:40:00	08/31/2018	23:59:00	6.32	0	0000	UNKN	RESERVE SHUTDOWN
111	Reserve Shutdown	08/21/2018	00:31:00	08/21/2018	11:31:00	11	0	0000	UNKN	RESERVE SHUTDOWN

23

**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

**Unit: BAYSIDE CT2C      MDC: 158      Run Date: 9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC
79	Reserve Shutdown	08/05/2018	01:26:00	08/05/2018	09:11:00	7.75	0	0000	UNKN	RESERVE SHUTDOWN
80	Reserve Shutdown	08/14/2018	00:04:00	08/14/2018	09:34:00	9.5	0	0000	UNKN	RESERVE SHUTDOWN
81	Full Forced Immed	08/29/2018	14:30:00	08/29/2018	16:00:00	1.5	0	3829	BLPT	CT AUX COOLING WATER PP DISCHARGE VALVE
82	Reserve Shutdown	08/29/2018	16:01:00	08/29/2018	16:18:00	0.28	0	0000	UNKN	RESERVE SHUTDOWN

**Tampa Electric Company  
Outage Listing  
(08/01/2018 - 08/31/2018)**

**Unit: BAYSIDE CT2D MDC: 158 Run Date: 9/10/2018**

Event Number	Event Type	Start Date	Start Time	End Date	End Time	Duration (Hours)	Unit Cap	Cause Code	Equipment Group	Event Description
EVNT_NO	EVNT_TYPE	START_DATE	START_TIME	EV_DATE	EV_TIME	CALCHRS	GAC	CAUSE_CODE	GRPNAME	VERB_DESC
82	Reserve Shutdown	08/09/2018	00:55:00	08/09/2018	09:24:00	8.48	0	0000	UNKN	RESERVE SHUTDOWN
83	Reserve Shutdown	08/15/2018	21:11:00	08/16/2018	06:24:00	9.22	0	0000	UNKN	RESERVE SHUTDOWN
84	Maintenance Outage	08/16/2018	06:25:00	08/20/2018	07:00:00	96.58	0	3832	BLPT	boiler tube leak
85	Reserve Shutdown	08/20/2018	07:01:00	08/20/2018	12:59:00	5.97	0	0000	UNKN	RESERVE SHUTDOWN
86	Full Forced Immed	08/20/2018	22:46:00	08/20/2018	23:23:00	0.62	0	6299	COMB	DRUM LEVEL SWINGING DUE TO STEAMER TRIP -
87	Reserve Shutdown	08/21/2018	22:34:00	08/22/2018	10:30:00	11.93	0	0000	UNKN	RESERVE SHUTDOWN
88	Full Forced Immed	08/29/2018	14:30:00	08/29/2018	17:39:00	3.15	0	3829	BLPT	CT AUX COOLING WATER PP DISCHARGE VALVE
89	Maintenance Outage	08/29/2018	17:40:00	08/30/2018	12:38:00	18.97	0	6299	COMB	COLD REHEAT STEAM LINE slid off hanger support ε
90	Reserve Shutdown	08/30/2018	12:39:00	08/31/2018	13:19:00	24.67	0	0000	UNKN	RESERVE SHUTDOWN

Tampa Electric Company  
Actual Unit Performance  
Outage Listing Abbreviations and Descriptions

AGA	Acid Gas Absorber	IP	Intermediate Pressure
APH	Air Preheater	KO	Knock Out
ASU	Air Separation Unit	LCI	Load Commutated Inverter
BFP	Boiler Feed Pump	LOTO	Lock Out Tag Out
BFPT	Boiler Feed Pump Turbine	LOX	Low Oxygen
CO	Carbon Monoxide	LP	Low Pressure
CO <sub>2</sub>	Carbon Dioxide	LVDT	Linear Variable Differential Transducer
COS	Carbonyl Sulfide	MAC	Main Air Compressor
CRH	Cold Reheat	MkVIe	Mark 6e GE Logic Controller
CSC	Convective Syngas Coolers	MOC	Motor Operated Control
CT	Combustion Turbine	MOV	Motor Operated Valve
DA	Deaerator	N <sub>2</sub>	Nitrogen
DCS	Digital Control System	PLC	Programmable Logic Controller
EGT	Exit Gas Temperature	Pp	Pump
EH	Electro Hydraulic	R/R	Remove and replace
FAT	Final Absorber Tower	RATA	Relative Accuracy Test Audit
FD	Forced Draft	RSV	Reheat Stop Valve
Fdwtr	Feed water	RTD	Resistance Temperature Device
FGD	Flue Gas Desulfurization	SAP	Sulfuric Acid Plant
GEHO	Manufacturer of Slurry Pump	ST	Steam Turbine
GTG	Gas Turbine Generator	STARSS	Strategic Anti-Rotating Stall Schedule
HP	High Pressure	T/R	Transformer Rectifier
HRSR	Heat Recovery Steam Generator	TC	Thermocouple
HX	Heat Exchanger	WWTL	Water wall tube leak
IAS	Instrument Air Supply	ZBL	Zero Ball Loss condenser cleaning system
ID	Induced Draft		