



Dianne M. Triplett
DEPUTY GENERAL COUNSEL

May 28, 2021

VIA ELECTRONIC FILING

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

Re: *Duke Energy Florida, LLC's Solar Plant Operation Status Report*
Docket No. 20210007-EI

Dear Mr. Teitzman:

Enclosed for filing on behalf of Duke Energy Florida, LLC ("DEF") is DEF's Solar Plant Operation Status Report for the month of April 2021, in accordance with Paragraph 15a. of the 2017 Second Revised and Restated Settlement Agreement, which was approved in Order No. PSC-2017-0451-AS-EU, dated November 20, 2017.

Thank you for your assistance in this matter. Please feel free to call me at (727) 820-4692 should you have any questions concerning this filing.

Sincerely,

/s/ Dianne M. Triplett

Dianne M. Triplett

DMT/cmck
Enclosures

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail to the following this 28th day of May, 2021.

/s/ Dianne M. Triplett
Attorney

<p>Charles Murphy Office of General Counsel Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 cmurphy@psc.state.fl.us</p> <p>J. Beasley / J. Wahlen / M. Means Ausley McMullen P.O. Box 391 Tallahassee, FL 32302 jbeasley@ausley.com jwahlen@ausley.com mmeans@ausley.com</p> <p>Steven R. Griffin Beggs Law Firm P.O. Box 12950 Pensacola, FL 32591 srg@beggslane.com</p> <p>Russell A. Badders Gulf Power Company One Energy Place, Bin 100 Pensacola, FL 32520-0100 russell.badders@nexteraenergy.com</p> <p>Jon C. Moyle, Jr. Moyle Law Firm, P.A. 118 North Gadsden Street Tallahassee, FL 32301 jmoyle@moylelaw.com mqualls@moylelaw.com</p>	<p>Charles Rehwinkel / Richard Gentry Office of Public Counsel c/o The Florida Legislature 111 West Madison Street, Room 812 Tallahassee, FL 32399-1400 rehwinkel.charles@leg.state.fl.us gentry.richard@leg.state.fl.us</p> <p>Paula K. Brown Tampa Electric Company Regulatory Affairs P.O. Box 111 Tampa, FL 33601 regdept@tecoenergy.com</p> <p>James W. Brew / Laura W. Baker Stone Law Firm 1025 Thomas Jefferson Street, N.W. Eighth Floor, West Tower Washington, DC 20007 jbrew@smxblaw.com lwb@smxblaw.com</p> <p>Kenneth Hoffman Florida Power & Light Company 134 W. Jefferson Street Tallahassee, FL 32301-1713 ken.hoffman@fpl.com</p> <p>Maria Moncada 700 Universe Boulevard (LAW/JB) Juno Beach, FL 33408-0420 maria.moncada@fpl.com</p>
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Duke Energy Florida, LLC
 Actual Data for Solar Generation Facilities
 Solar Base Rate Adjustment (SoBRA) Reporting
April, 2021

		AVERAGE HOURLY NET OUTPUT (MWh)						
Hour of Day	System Firm Demand (MW)	Hamilton	Lake Placid	Trenton	Columbia	Debary	Santa Fe	Twin Rivers
1	1	3,438.4	0.0	0.0	0.0	0.0	0.0	0.0
2	2	3,165.3	0.0	0.0	0.0	0.0	0.0	0.0
3	3	3,003.7	0.0	0.0	0.0	0.0	0.0	0.0
4	4	2,917.1	0.0	0.0	0.0	0.0	0.0	0.0
5	5	2,923.9	0.0	0.0	0.0	0.0	0.0	0.0
6	6	3,068.6	0.0	0.0	0.0	0.0	0.0	0.0
7	7	3,364.4	4.6	4.1	4.7	6.2	2.5	5.8
8	8	3,694.5	30.3	22.6	33.0	32.0	12.7	32.3
9	9	3,947.5	48.4	34.2	53.3	51.1	28.8	53.9
10	10	4,185.5	52.7	36.8	57.9	56.5	42.4	58.8
11	11	4,436.2	55.2	38.8	61.4	59.5	48.8	61.1
12	12	4,708.2	57.0	37.1	62.8	60.0	53.3	62.7
13	13	5,016.0	54.9	36.8	63.6	60.9	56.0	62.4
14	14	5,283.0	53.3	36.6	59.6	57.6	55.7	60.1
15	15	5,560.0	51.5	36.7	57.8	56.3	49.7	58.2
16	16	5,785.4	51.0	34.8	53.7	51.9	40.5	54.7
17	17	5,964.3	44.0	30.5	47.3	47.7	27.5	49.3
18	18	6,021.5	29.7	17.6	31.9	32.1	11.3	33.7
19	19	5,891.9	5.2	2.1	5.2	6.2	1.6	6.2
20	20	5,600.4	0.0	0.0	0.0	0.0	0.0	0.0
21	21	5,441.5	0.0	0.0	0.0	0.0	0.0	0.0
22	22	5,019.4	0.0	0.0	0.0	0.0	0.0	0.0
23	23	4,442.5	0.0	0.0	0.0	0.0	0.0	0.0
24	24	3,844.5	0.0	0.0	0.0	0.0	0.0	0.0

Duke Energy Florida, LLC
Actual Data for Solar Generation Facilities
Solar Base Rate Adjustment (SoBRA) Reporting
PERIOD:
April, 2021

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	16,131	29.9%	0.5%	2,988,983
LAKE PLACID	45.0	11,064	34.1%	0.4%	
TRENTON	74.9	17,763	32.9%	0.6%	
COLUMBIA	74.9	17,339	32.2%	0.6%	
DEBARY	74.5	12,923	24.1%	0.4%	
SANTA FE	74.9	17,977	33.3%	0.6%	
TWIN RIVERS	74.9	0	0.0%	0.0%	
Total:	494.0	93,197	26.2%	3.1%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	116,241	\$2.79	2	\$83.37	1,779	\$37.19
LAKE PLACID	79,728	\$2.79	2	\$83.37	1,220	\$37.19
TRENTON	128,002	\$2.79	2	\$83.37	1,959	\$37.19
COLUMBIA	124,946	\$2.79	2	\$83.37	1,912	\$37.19
DEBARY	93,124	\$2.79	2	\$83.37	1,425	\$37.19
SANTA FE	129,544	\$2.79	2	\$83.37	1,982	\$37.19
TWIN RIVERS	0	\$2.79	0	\$83.37	0	\$37.19
Total:	671,586	\$1,873,410	13	\$1,070	10,276	\$382,115

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	10,669	3	2	0
LAKE PLACID	7,318	2	1	0
TRENTON	11,748	3	2	0
COLUMBIA	11,468	3	2	0
DEBARY	8,547	2	1	0
SANTA FE	11,890	3	2	0
TWIN RIVERS	0	0	0	0
Total:	61,639	15	9	1

Facility	O&M (\$)	Carrying Costs (\$)¹	Capital (\$)¹	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$76,843	\$685,708	\$304,534	\$16,388	\$0	\$1,083,473
LAKE PLACID	\$43,291	\$372,986	\$164,644	\$8,683	\$0	\$589,604
TRENTON	\$375,725	\$615,337	\$271,802	\$17,550	\$0	\$1,280,414
COLUMBIA	\$52,180	\$689,282	\$292,446	\$17,645	\$0	\$1,051,553
DEBARY	\$63,316	\$560,502	\$243,789	\$14,286	\$0	\$881,892
SANTA FE	\$8,850	\$672,638	\$272,064	\$17,384	\$0	\$970,936
TWIN RIVERS	\$4,452	\$508,295	\$205,592	\$15,572	\$0	\$733,911
Total:	\$624,657	\$4,104,748	\$1,754,869	\$107,508	\$0	\$6,591,782

Notes:

Santa Fe and Twin Rivers sites became active in March

1) Project costs for Santa Fe & Twin Rivers are estimated during final punch list item completion; future reports to be updated to reflect actual costs

Duke Energy Florida, LLC
Actual Data for Solar Generation Facilities
Solar Base Rate Adjustment (SoBRA) Reporting
YEAR-TO-DATE THROUGH:
April, 2021

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	50,270	23.3%	0.4%	11,723,542
LAKE PLACID	45.0	34,343	26.5%	0.3%	
TRENTON	74.9	54,053	25.1%	0.5%	
COLUMBIA	74.9	53,408	24.8%	0.5%	
DEBARY	74.5	45,065	21.0%	0.4%	
SANTA FE	74.9	31,946	31.2%	0.3%	
TWIN RIVERS	74.9	687	0.9%	0.0%	
Total:	494.0	269,772	23.5%	2.3%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	342,388	\$3.40	1,750	\$83.00	4,915	\$36.08
LAKE PLACID	234,730	\$3.43	1,198	\$82.92	3,307	\$36.09
TRENTON	369,651	\$3.42	1,895	\$82.94	5,237	\$36.11
COLUMBIA	364,764	\$3.42	1,872	\$82.96	5,186	\$36.10
DEBARY	308,529	\$3.52	1,563	\$82.67	4,131	\$36.00
SANTA FE	225,215	\$2.79	1,068	\$84.63	4,234	\$36.45
TWIN RIVERS	12,184	\$2.80	136	\$84.63	287	\$35.80
Total:	1,857,462	\$6,048,175	9,481	\$790,610	27,297	\$985,140

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	31,573	10	5	0
LAKE PLACID	21,518	7	3	0
TRENTON	33,948	11	5	0
COLUMBIA	33,537	11	5	0
DEBARY	27,838	8	4	0
SANTA FE	22,762	10	4	0
TWIN RIVERS	1,385	1	0	0
Total:	172,560	58	27	3

Facility	O&M (\$)	Carrying Costs (\$)¹	Capital (\$)¹	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$644,935	\$2,755,847	\$1,218,134	\$65,552	\$0	\$4,684,468
LAKE PLACID	\$314,356	\$1,498,769	\$658,575	\$34,732	\$0	\$2,506,432
TRENTON	\$727,282	\$2,471,665	\$1,086,912	\$70,200	\$0	\$4,356,059
COLUMBIA	\$187,560	\$2,769,566	\$1,169,782	\$70,580	\$0	\$4,197,488
DEBARY	\$234,792	\$2,252,076	\$975,014	\$57,144	\$0	\$3,519,025
SANTA FE	\$8,850	\$672,638	\$272,064	\$34,768	\$0	\$988,320
TWIN RIVERS	\$380,160	\$508,295	\$205,592	\$31,144	\$0	\$1,125,191
Total:	\$2,497,935	\$12,928,856	\$5,586,072	\$364,120	\$0	\$21,376,983

Notes:

Santa Fe and Twin Rivers sites became active in March

1) Project costs for Santa Fe & Twin Rivers are estimated during final punch list item completion; future reports to be updated to reflect actual costs