



Stephanie A. Cuello
SENIOR COUNSEL

May 24, 2023

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. 20230007-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 2023, 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 and if you have any questions, please feel free to contact me at (850) 521-1425.

Sincerely,

s/ Stephanie A. Cuello

Stephanie A. Cuello

SAC/vr
Attachment

CERTIFICATE OF SERVICE

Docket No. 20230007-EI

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail to the following this 24th day of May, 2023.

/s/ Stephanie A. Cuello

Attorney

<p>Adria Harper / Jacob Imig Office of General Counsel Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 aharper@psc.state.fl.us jimig@psc.state.fl.us</p> <p>J. Wahlen / M. Means / V. Ponder Ausley McMullen P.O. Box 391 Tallahassee, FL 32302 jwahlen@ausley.com mmeans@ausley.com vponder@ausley.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>Maria Jose Moncada / Joel Baker 700 Universe Boulevard Juno Beach, FL 33408-0420 maria.moncada@fpl.com joel.baker@fpl.com</p> <p>James W. Brew / Laura Wynn Baker Stone Mattheis Xenopoulos & Brew, P.C. 1025 Thomas Jefferson Street, NW Eighth Floor, West Tower Washington, DC 20007 jbrew@smxblaw.com lwb@smxblaw.com</p>	<p>M. Wessling/ P. Christensen / C. Rehwinkel Office of Public Counsel 111 West Madison Street, Room 812 Tallahassee, FL 32399-1400 wessling.mary@leg.state.fl.us christensen.patty@leg.state.fl.us rehwinkel.charles@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>Kenneth Hoffman Florida Power & Light Company 134 W. Jefferson Street Tallahassee, FL 32301-1713 ken.hoffman@fpl.com</p> <p>Peter J. Mattheis / Michael K. Lavanga / Joseph R. Briscar Nucor c/o Stone Law Firm 1025 Thomas Jefferson Street, N.W. Eighth Floor, West Tower Washington, DC 20007 pjm@smxblaw.com mkl@smxblaw.com jrb@smxblaw.com</p>
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Duke Energy Florida, LLC
 Actual Data for Solar Generation Facilities
 Solar Base Rate Adjustment (SoBRA) Reporting
April, 2023

		AVERAGE HOURLY NET OUTPUT (MWh)	AVERAGE HOURLY NET OUTPUT (MWh)	AVERAGE HOURLY NET OUTPUT (MWh)	AVERAGE HOURLY NET OUTPUT (MWh)	AVERAGE HOURLY NET OUTPUT (MWh)	AVERAGE HOURLY NET OUTPUT (MWh)	AVERAGE HOURLY NET OUTPUT (MWh)	AVERAGE HOURLY NET OUTPUT (MWh)	AVERAGE HOURLY NET OUTPUT (MWh)	AVERAGE HOURLY NET OUTPUT (MWh)	AVERAGE HOURLY NET OUTPUT (MWh)
Hour of Day	System Firm Demand (MW)	Hamilton	Lake Placid	Trenton	Columbia	Debary	Santa Fe	Twin Rivers	Duette	Sandy Creek	Charlie Creek	
1	1	3,893.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2	2	3,543.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3	3	3,324.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4	4	3,189.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	5	3,173.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6	6	3,309.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7	7	3,598.7	3.6	1.3	3.5	2.5	1.8	4.8	4.3	1.8	2.6	
8	8	3,868.2	21.0	9.6	23.7	14.9	10.3	26.1	25.4	16.3	20.5	
9	9	4,156.6	36.4	17.1	36.5	24.5	23.0	40.0	43.6	30.4	38.7	
10	10	4,495.1	40.7	20.1	42.3	30.9	33.0	47.7	50.5	34.2	44.2	
11	11	4,809.9	41.5	22.6	44.5	33.4	42.5	51.1	51.4	33.9	49.6	
12	12	5,246.8	40.8	23.0	45.4	34.9	43.5	52.9	50.9	34.0	50.8	
13	13	5,599.7	41.5	23.5	41.6	35.5	44.2	51.2	50.3	33.3	50.7	
14	14	5,929.6	39.9	22.1	43.0	34.8	42.5	48.7	49.5	35.8	50.0	
15	15	6,212.2	36.5	21.6	39.3	31.6	35.8	44.5	46.5	33.1	48.0	
16	16	6,459.5	32.3	17.8	34.2	28.0	27.3	41.1	41.1	31.0	43.2	
17	17	6,657.6	28.4	14.5	32.1	20.7	19.4	32.8	34.8	24.1	36.5	
18	18	6,711.6	18.0	8.7	20.2	11.8	7.7	19.6	22.8	13.9	23.6	
19	19	6,557.1	3.8	1.4	3.6	2.5	0.9	4.1	4.8	1.8	5.7	
20	20	6,265.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
21	21	6,053.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
22	22	5,657.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23	23	5,116.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
24	24	4,420.6	0.0	0.0	0.0	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, 2023

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	11,536	21.4%	0.3%	3,641,035
LAKE PLACID	45.0	6,095	18.8%	0.2%	
TRENTON	74.9	12,294	22.8%	0.3%	
COLUMBIA	74.9	9,186	17.0%	0.3%	
DEBARY	74.5	9,961	18.6%	0.3%	
SANTA FE	74.9	13,937	25.8%	0.4%	
TWIN RIVERS	74.9	14,275	26.5%	0.4%	
DUETTE	74.5	9,706	18.1%	0.3%	
SANDY CREEK	74.9	13,926	25.8%	0.4%	
CHARLIE CREEK	74.9	15,661	29.0%	0.4%	
Total:	718.3	116,577.0	22.5%	3.2%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	97,113	\$2.46	474	\$116.56	630	\$52.81
LAKE PLACID	51,309	\$2.46	250	\$116.56	333	\$52.81
TRENTON	103,494	\$2.46	505	\$116.56	671	\$52.81
COLUMBIA	77,330	\$2.46	377	\$116.56	502	\$52.81
DEBARY	83,854	\$2.46	409	\$116.56	544	\$52.81
SANTA FE	117,325	\$2.46	572	\$116.56	761	\$52.81
TWIN RIVERS	120,170	\$2.46	586	\$116.56	780	\$52.81
DUETTE	81,707	\$2.46	398	\$116.56	530	\$52.81
SANDY CREEK	117,232	\$2.46	572	\$116.56	761	\$52.81
CHARLIE CREEK	131,838	\$2.46	643	\$116.56	855	\$52.81
Total:	981,372	\$2,411,908	4,785	\$557,746	6,366	\$336,227

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	7,393	4	1	0
LAKE PLACID	3,906	2	1	0
TRENTON	7,879	4	1	0
COLUMBIA	5,887	3	1	0
DEBARY	6,384	4	1	0
SANTA FE	8,932	5	1	0
TWIN RIVERS	9,148	5	1	0
DUETTE	6,220	3	1	0
SANDY CREEK	8,925	5	1	0
CHARLIE CREEK	10,037	6	2	0
Total:	74,711	42	12	1

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$66,484	\$654,081	\$313,210	\$16,388	\$0	\$1,050,163
LAKE PLACID	\$56,238	\$348,006	\$168,706	\$8,683	\$0	\$581,633
TRENTON	\$403,498	\$569,902	\$277,662	\$17,550	\$0	\$1,268,612
COLUMBIA	\$60,226	\$642,190	\$295,284	\$17,645	\$0	\$1,015,345
DEBARY	\$37,568	\$520,228	\$245,835	\$14,286	\$0	\$817,917
SANTA FE	\$62,448	\$648,129	\$288,888	\$17,384	\$0	\$1,016,849
TWIN RIVERS	\$46,382	\$595,996	\$263,364	\$15,572	\$0	\$921,314
DUETTE	\$85,666	\$626,396	\$273,336	\$20,420	\$0	\$1,005,818
SANDY CREEK	\$67,961	\$484,153	\$254,255	\$16,083	\$0	\$822,452
CHARLIE CREEK	\$10,907	\$510,704	\$267,730	\$21,047	\$0	\$810,388
Total:	\$897,378	\$5,599,785	\$2,648,270	\$165,058	\$0	\$9,310,491

Notes:

Duke Energy Florida, LLC
Actual Data for Solar Generation Facilities
Solar Base Rate Adjustment (SoBRA) Reporting
YEAR-TO-DATE THROUGH:
April, 2023

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	50,794	23.5%	0.7%	7,015,799
LAKE PLACID	45.0	22,384	17.3%	0.3%	
TRENTON	74.9	50,691	23.5%	0.7%	
COLUMBIA	74.9	46,510	21.6%	0.7%	
DEBARY	74.5	44,719	20.8%	0.6%	
SANTA FE	74.9	44,680	20.7%	0.6%	
TWIN RIVERS	74.9	48,721	22.6%	0.7%	
DUETTE	74.5	48,715	22.7%	0.7%	
SANDY CREEK	74.9	49,337	22.9%	0.7%	
CHARLIE CREEK	74.9	59,651	27.7%	0.9%	
Total:	718.3	466,202	22.5%	6.6%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	406,793	\$2.74	885	\$120.45	1,257	\$53.65
LAKE PLACID	181,357	\$2.70	442	\$119.96	627	\$53.34
TRENTON	406,965	\$2.74	921	\$120.31	1,303	\$53.56
COLUMBIA	373,014	\$2.75	789	\$120.83	1,129	\$53.62
DEBARY	356,966	\$2.76	766	\$120.57	1,083	\$53.72
SANTA FE	365,881	\$2.63	950	\$119.41	1,356	\$53.16
TWIN RIVERS	393,874	\$2.71	977	\$119.78	1,376	\$53.38
DUETTE	391,304	\$2.73	830	\$120.75	1,191	\$53.59
SANDY CREEK	398,682	\$2.71	972	\$119.86	1,372	\$53.40
CHARLIE CREEK	480,184	\$2.72	1,117	\$120.02	1,581	\$53.51
Total:	3,755,021	\$10,204,890	8,650	\$1,039,707	12,276	\$656,665

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	27,655	9	2	0
LAKE PLACID	12,488	5	1	0
TRENTON	27,777	10	2	0
COLUMBIA	25,300	8	2	0
DEBARY	24,223	8	2	0
SANTA FE	25,402	10	3	0
TWIN RIVERS	27,156	10	3	0
DUETTE	26,555	9	2	0
SANDY CREEK	27,438	10	3	0
CHARLIE CREEK	32,877	12	3	0
Total:	256,871	90	23	1

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$580,461	\$2,629,675	\$1,252,834	\$65,552	\$0	\$4,528,522
LAKE PLACID	\$385,596	\$1,398,995	\$674,822	\$34,732	\$0	\$2,494,145
TRENTON	\$670,568	\$2,291,208	\$1,110,648	\$70,200	\$0	\$4,142,624
COLUMBIA	\$188,108	\$2,581,451	\$1,181,136	\$70,580	\$0	\$4,021,275
DEBARY	\$148,601	\$2,091,135	\$983,340	\$57,144	\$0	\$3,280,220
SANTA FE	\$212,569	\$2,601,642	\$1,155,552	\$69,536	\$0	\$4,039,299
TWIN RIVERS	\$590,277	\$2,395,162	\$1,053,457	\$62,288	\$0	\$4,101,184
DUETTE	\$251,020	\$2,517,362	\$1,093,345	\$81,680	\$0	\$3,943,407
SANDY CREEK	\$218,552	\$1,945,388	\$1,017,022	\$64,333	\$0	\$3,245,295
CHARLIE CREEK	\$382,124	\$2,053,433	\$1,071,169	\$84,189	\$0	\$3,590,915
Total:	\$3,627,876	\$22,505,451	\$10,593,325	\$660,234	\$0	\$37,386,886

Notes: