



Stephanie A. Cuello
SENIOR COUNSEL

August 28, 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 July 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 28th day of August, 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
July, 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	5,222.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2	2	4,812.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3	3	4,531.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4	4	4,362.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	5	4,283.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6	6	4,328.0	0.2	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.0	
7	7	4,475.6	10.9	2.3	10.2	10.1	2.9	8.3	8.6	10.2	5.3	
8	8	4,711.2	38.5	9.9	34.5	31.7	13.1	25.9	30.0	31.5	27.9	
9	9	5,181.8	52.5	14.2	46.5	44.7	26.8	35.9	41.2	40.5	41.7	
10	10	5,810.3	57.9	16.6	53.4	50.5	36.0	39.3	46.2	43.0	51.8	
11	11	6,547.0	60.2	17.8	50.0	51.5	39.7	39.4	48.4	38.9	54.6	
12	12	7,260.9	59.1	18.6	50.2	51.1	42.6	39.3	48.2	36.2	53.5	
13	13	7,801.5	58.2	19.3	47.4	49.3	41.6	38.5	48.1	37.2	55.0	
14	14	8,126.5	57.1	18.7	47.4	48.5	34.4	38.2	45.2	38.4	57.3	
15	15	8,336.5	52.3	15.4	45.9	47.5	26.6	38.4	41.5	30.9	54.5	
16	16	8,419.0	47.1	12.3	40.6	36.1	20.3	27.4	37.4	25.3	50.7	
17	17	8,478.8	37.3	8.1	36.0	27.7	17.3	22.5	29.8	21.8	45.1	
18	18	8,426.7	26.7	4.9	27.8	22.4	9.7	19.2	21.0	18.2	32.4	
19	19	8,206.0	13.3	1.8	9.8	9.3	2.9	8.0	10.9	8.1	12.8	
20	20	7,835.9	0.7	0.1	0.6	0.4	0.1	0.4	0.6	0.6	1.0	
21	21	7,442.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
22	22	7,035.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23	23	6,373.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
24	24	5,690.1	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:
July, 2023

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	17,736	31.8%	0.4%	4,610,778
LAKE PLACID	45.0	4,966	14.8%	0.1%	
TRENTON	74.9	15,515	27.8%	0.3%	
COLUMBIA	74.9	14,901	26.7%	0.3%	
DEBARY	74.5	9,741	17.6%	0.2%	
SANTA FE	74.9	11,802	21.2%	0.3%	
TWIN RIVERS	74.9	14,178	25.4%	0.3%	
DUETTE	74.5	11,807	21.3%	0.3%	
SANDY CREEK	74.9	16,851	30.2%	0.4%	
CHARLIE CREEK	74.9	15,728	28.2%	0.3%	
Total:	718.3	133,225.0	24.9%	2.9%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	131,872	\$3.49	1,742	\$116.84	1,533	\$48.86
LAKE PLACID	36,924	\$3.49	488	\$116.84	429	\$48.86
TRENTON	115,359	\$3.49	1,524	\$116.84	1,341	\$48.86
COLUMBIA	110,793	\$3.49	1,463	\$116.84	1,288	\$48.86
DEBARY	72,427	\$3.49	957	\$116.84	842	\$48.86
SANTA FE	87,751	\$3.49	1,159	\$116.84	1,020	\$48.86
TWIN RIVERS	105,418	\$3.49	1,392	\$116.84	1,226	\$48.86
DUETTE	87,788	\$3.49	1,160	\$116.84	1,021	\$48.86
SANDY CREEK	125,292	\$3.49	1,655	\$116.84	1,457	\$48.86
CHARLIE CREEK	116,942	\$3.49	1,545	\$116.84	1,360	\$48.86
Total:	990,567	\$3,461,723	13,084	\$1,528,817	11,516	\$562,649

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	11,923	9	3	0
LAKE PLACID	3,338	2	1	0
TRENTON	10,430	8	3	0
COLUMBIA	10,017	7	3	0
DEBARY	6,548	5	2	0
SANTA FE	7,934	6	2	0
TWIN RIVERS	9,531	7	2	0
DUETTE	7,937	6	2	0
SANDY CREEK	11,328	8	3	0
CHARLIE CREEK	10,573	8	3	0
Total:	89,558	65	23	1

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$58,639	\$633,432	\$313,210	\$16,388	\$0	\$1,021,669
LAKE PLACID	\$44,251	\$344,520	\$168,705	\$8,683	\$0	\$566,159
TRENTON	\$79,630	\$564,102	\$277,662	\$17,550	\$0	\$938,944
COLUMBIA	\$487,942	\$635,846	\$295,284	\$17,645	\$0	\$1,436,717
DEBARY	\$51,101	\$515,117	\$245,835	\$14,286	\$0	\$826,339
SANTA FE	\$21,937	\$643,081	\$289,762	\$17,384	\$0	\$972,164
TWIN RIVERS	\$52,201	\$590,407	\$263,364	\$15,572	\$0	\$921,545
DUETTE	\$32,115	\$620,613	\$273,336	\$20,420	\$0	\$946,484
SANDY CREEK	\$101,268	\$479,828	\$251,765	\$16,083	\$0	\$848,944
CHARLIE CREEK	\$305,194	\$501,343	\$265,349	\$21,047	\$0	\$1,092,933
Total:	\$1,234,278	\$5,528,289	\$2,644,272	\$165,058	\$0	\$9,571,897

Notes:

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

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	99,871	26.2%	0.4%	24,935,884
LAKE PLACID	45.0	40,183	17.6%	0.2%	
TRENTON	74.9	89,290	23.4%	0.4%	
COLUMBIA	74.9	86,725	22.8%	0.3%	
DEBARY	74.5	74,554	19.7%	0.3%	
SANTA FE	74.9	84,489	22.2%	0.3%	
TWIN RIVERS	74.9	91,665	24.1%	0.4%	
DUETTE	74.5	89,469	23.6%	0.4%	
SANDY CREEK	74.9	96,388	25.3%	0.4%	
CHARLIE CREEK	74.9	108,853	28.6%	0.4%	
Total:	718.3	861,487	23.6%	3.5%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	796,165	\$2.81	3,594	\$115.32	4,300	\$49.96
LAKE PLACID	323,546	\$2.75	1,312	\$115.25	1,667	\$50.37
TRENTON	712,008	\$2.82	3,159	\$115.83	3,758	\$50.23
COLUMBIA	691,716	\$2.81	3,027	\$115.58	3,633	\$50.08
DEBARY	594,398	\$2.80	2,335	\$115.70	2,889	\$50.44
SANTA FE	683,188	\$2.72	2,927	\$115.12	3,698	\$50.32
TWIN RIVERS	735,079	\$2.77	3,211	\$115.34	3,961	\$50.32
DUETTE	716,361	\$2.77	2,836	\$115.26	3,579	\$50.31
SANDY CREEK	771,933	\$2.79	3,544	\$115.33	4,276	\$50.08
CHARLIE CREEK	871,561	\$2.77	3,645	\$115.36	4,525	\$50.35
Total:	6,895,955	\$19,173,854	29,588	\$3,414,694	36,284	\$1,823,108

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	58,721	27	8	0
LAKE PLACID	23,631	11	3	0
TRENTON	52,312	24	7	0
COLUMBIA	50,764	23	7	0
DEBARY	43,027	19	6	0
SANTA FE	50,334	23	7	0
TWIN RIVERS	54,148	25	8	0
DUETTE	52,063	23	7	0
SANDY CREEK	57,179	27	8	0
CHARLIE CREEK	63,780	29	9	0
Total:	505,959	230	69	3

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$783,854	\$4,480,788	\$2,192,464	\$114,716	\$0	\$7,571,822
LAKE PLACID	\$749,412	\$2,436,042	\$1,180,938	\$60,781	\$0	\$4,427,173
TRENTON	\$902,523	\$3,989,311	\$1,943,634	\$122,850	\$0	\$6,958,318
COLUMBIA	\$766,330	\$4,495,333	\$2,066,987	\$123,515	\$0	\$7,452,165
DEBARY	\$325,397	\$3,641,598	\$1,720,844	\$100,002	\$0	\$5,787,841
SANTA FE	\$313,401	\$4,536,960	\$2,024,838	\$121,688	\$0	\$6,996,888
TWIN RIVERS	\$724,345	\$4,171,973	\$1,843,551	\$109,004	\$0	\$6,848,873
DUETTE	\$402,872	\$4,384,932	\$1,913,354	\$142,940	\$0	\$6,844,098
SANDY CREEK	\$1,031,562	\$3,389,164	\$1,774,807	\$112,581	\$0	\$6,308,114
CHARLIE CREEK	\$797,271	\$3,569,295	\$1,872,143	\$147,329	\$0	\$6,386,039
Total:	\$6,796,967	\$39,095,396	\$18,533,561	\$1,155,406	\$0	\$65,581,331

Notes: