



Stephanie A. Cuello
SENIOR COUNSEL

June 23, 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 May 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 23th day of June, 2023.

/s/ Stephanie A. Cuello

Attorney

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Duke Energy Florida, LLC
 Actual Data for Solar Generation Facilities
 Solar Base Rate Adjustment (SoBRA) Reporting
 May, 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)
Hour of Day	System Firm Demand (MW)	Hamilton	Lake Placid	Trenton	Columbia	Debary	Santa Fe	Twin Rivers	Duette	Sandy Creek	Charlie Creek
1	1	4,044.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	2	3,700.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	3	3,465.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	4	3,325.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	5	3,298.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	6	3,402.4	0.2	0.0	0.1	0.2	0.2	0.1	0.0	0.1	0.1
7	7	3,638.4	9.6	4.2	7.1	8.2	3.0	11.0	10.5	12.8	7.2
8	8	3,874.6	31.4	14.8	23.6	23.4	12.7	31.7	33.2	40.9	28.0
9	9	4,213.9	43.0	19.7	32.3	31.8	25.3	42.3	46.4	49.7	42.4
10	10	4,601.5	48.6	22.2	35.1	38.6	35.0	50.4	53.2	53.2	51.3
11	11	5,004.4	49.9	22.3	36.2	40.8	40.5	50.1	54.6	53.4	50.8
12	12	5,478.7	48.3	22.2	35.9	41.2	40.3	49.3	52.1	52.4	53.4
13	13	5,929.7	48.3	22.6	35.8	40.8	39.2	48.5	51.2	49.3	49.9
14	14	6,314.5	46.0	22.7	34.6	42.0	37.5	49.3	48.0	48.0	45.4
15	15	6,620.4	39.7	20.8	30.9	39.5	31.8	47.8	41.4	44.9	40.9
16	16	6,875.9	39.0	18.3	27.9	33.4	24.9	43.6	40.7	37.1	38.3
17	17	7,005.2	36.9	14.7	24.9	28.8	17.6	38.1	38.1	36.9	36.7
18	18	7,014.3	28.1	10.1	18.7	20.1	8.0	26.2	29.4	26.6	27.4
19	19	6,821.1	8.5	2.4	5.5	6.0	1.4	7.8	9.2	6.4	9.1
20	20	6,448.3	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.3
21	21	6,148.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	22	5,736.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	23	5,164.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	24	4,554.9	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:
May, 2023

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	14,809	26.6%	0.4%	3,686,289
LAKE PLACID	45.0	6,728	20.1%	0.2%	
TRENTON	74.9	10,808	19.4%	0.3%	
COLUMBIA	74.9	12,247	22.0%	0.3%	
DEBARY	74.5	9,840	17.8%	0.3%	
SANTA FE	74.9	15,383	27.6%	0.4%	
TWIN RIVERS	74.9	15,756	28.3%	0.4%	
DUETTE	74.5	15,865	28.6%	0.4%	
SANDY CREEK	74.9	14,918	26.8%	0.4%	
CHARLIE CREEK	74.9	18,115	32.5%	0.5%	
Total:	718.3	134,469.0	25.2%	3.6%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	119,666	\$2.47	291	\$106.26	617	\$52.22
LAKE PLACID	54,366	\$2.47	132	\$106.26	280	\$52.22
TRENTON	87,335	\$2.47	212	\$106.26	450	\$52.22
COLUMBIA	98,963	\$2.47	241	\$106.26	510	\$52.22
DEBARY	79,513	\$2.47	193	\$106.26	410	\$52.22
SANTA FE	124,304	\$2.47	302	\$106.26	641	\$52.22
TWIN RIVERS	127,318	\$2.47	310	\$106.26	656	\$52.22
DUETTE	128,199	\$2.47	312	\$106.26	661	\$52.22
SANDY CREEK	120,547	\$2.47	293	\$106.26	621	\$52.22
CHARLIE CREEK	146,381	\$2.47	356	\$106.26	754	\$52.22
Total:	1,086,594	\$2,681,780	2,644	\$280,898	5,600	\$292,436

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	8,651	3	1	0
LAKE PLACID	3,930	2	0	0
TRENTON	6,314	2	1	0
COLUMBIA	7,154	3	1	0
DEBARY	5,748	2	1	0
SANTA FE	8,986	3	1	0
TWIN RIVERS	9,204	4	1	0
DUETTE	9,268	4	1	0
SANDY CREEK	8,715	3	1	0
CHARLIE CREEK	10,582	4	1	0
Total:	78,554	30	10	1

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$77,403	\$637,887	\$313,210	\$16,388	\$0	\$1,044,888
LAKE PLACID	\$50,313	\$346,844	\$168,705	\$8,683	\$0	\$574,545
TRENTON	\$34,046	\$567,967	\$277,662	\$17,550	\$0	\$897,225
COLUMBIA	\$36,022	\$640,075	\$295,283	\$17,645	\$0	\$989,025
DEBARY	\$49,293	\$518,524	\$245,834	\$14,286	\$0	\$827,937
SANTA FE	\$38,233	\$647,130	\$289,762	\$17,384	\$0	\$992,509
TWIN RIVERS	\$25,376	\$594,133	\$263,364	\$15,572	\$0	\$898,445
DUETTE	\$63,125	\$624,433	\$273,336	\$20,420	\$0	\$981,314
SANDY CREEK	\$604,540	\$482,691	\$254,255	\$16,083	\$0	\$1,357,569
CHARLIE CREEK	\$48,081	\$509,235	\$267,803	\$21,047	\$0	\$846,166
Total:	\$1,026,432	\$5,568,919	\$2,649,214	\$165,058	\$0	\$9,409,623

Notes:

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

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	65,603	24.2%	0.4%	16,263,329
LAKE PLACID	45.0	29,112	17.9%	0.2%	
TRENTON	74.9	61,499	22.7%	0.4%	
COLUMBIA	74.9	58,757	21.6%	0.4%	
DEBARY	74.5	54,559	20.2%	0.3%	
SANTA FE	74.9	60,063	22.1%	0.4%	
TWIN RIVERS	74.9	64,477	23.8%	0.4%	
DUETTE	74.5	64,580	23.9%	0.4%	
SANDY CREEK	74.9	64,255	23.7%	0.4%	
CHARLIE CREEK	74.9	77,766	28.6%	0.5%	
Total:	718.3	600,671	23.1%	3.7%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	526,459	\$2.68	1,177	\$116.94	1,874	\$53.18
LAKE PLACID	235,723	\$2.65	575	\$116.81	908	\$52.99
TRENTON	494,300	\$2.69	1,134	\$117.68	1,754	\$53.22
COLUMBIA	471,978	\$2.69	1,030	\$117.42	1,639	\$53.18
DEBARY	436,480	\$2.71	960	\$117.69	1,493	\$53.31
SANTA FE	490,185	\$2.59	1,252	\$116.23	1,996	\$52.86
TWIN RIVERS	521,192	\$2.65	1,287	\$116.52	2,033	\$53.01
DUETTE	519,503	\$2.67	1,142	\$116.79	1,851	\$53.10
SANDY CREEK	519,229	\$2.65	1,265	\$116.71	1,994	\$53.03
CHARLIE CREEK	626,565	\$2.66	1,473	\$116.70	2,336	\$53.09
Total:	4,841,615	\$12,890,413	11,294	\$1,320,785	17,876	\$949,157

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	36,306	13	3	0
LAKE PLACID	16,418	6	2	0
TRENTON	34,091	12	3	0
COLUMBIA	32,454	11	3	0
DEBARY	29,971	10	3	0
SANTA FE	34,389	13	4	0
TWIN RIVERS	36,361	13	4	0
DUETTE	35,823	12	3	0
SANDY CREEK	36,153	13	4	0
CHARLIE CREEK	43,459	16	4	0
Total:	335,425	121	33	2

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$657,864	\$3,211,697	\$1,566,044	\$81,940	\$0	\$5,517,545
LAKE PLACID	\$435,909	\$1,745,839	\$843,527	\$43,415	\$0	\$3,068,690
TRENTON	\$704,614	\$2,859,175	\$1,388,310	\$87,750	\$0	\$5,039,849
COLUMBIA	\$224,129	\$3,221,526	\$1,476,419	\$88,225	\$0	\$5,010,299
DEBARY	\$197,894	\$2,609,660	\$1,229,174	\$71,430	\$0	\$4,108,158
SANTA FE	\$250,802	\$3,248,772	\$1,445,314	\$86,920	\$0	\$5,031,808
TWIN RIVERS	\$615,653	\$2,989,295	\$1,316,822	\$77,860	\$0	\$4,999,630
DUETTE	\$314,145	\$3,141,796	\$1,366,681	\$102,100	\$0	\$4,924,722
SANDY CREEK	\$823,092	\$2,428,079	\$1,271,277	\$80,415	\$0	\$4,602,863
CHARLIE CREEK	\$430,206	\$2,562,668	\$1,338,972	\$105,235	\$0	\$4,437,081
Total:	\$4,654,308	\$28,018,507	\$13,242,540	\$825,290	\$0	\$46,740,645

Notes: