



Stephanie A. Cuello  
SENIOR COUNSEL

April 26, 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 March 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 26<sup>th</sup> day of April, 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  
 March, 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	3,559.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2	2	3,269.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3	3	3,110.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4	4	3,019.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	5	3,032.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6	6	3,211.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7	7	3,558.3	0.3	0.2	0.4	0.5	0.4	0.5	0.3	0.3	0.1	
8	8	3,890.0	12.8	6.0	14.0	14.7	8.2	13.0	12.3	15.9	8.3	
9	9	4,143.5	38.2	17.9	37.6	35.4	24.7	34.8	36.2	43.3	29.2	
10	10	4,343.8	46.8	24.2	49.7	47.8	40.8	46.9	45.5	52.9	44.2	
11	11	4,542.5	53.9	25.7	56.5	54.6	50.6	52.7	52.8	56.5	52.4	
12	12	4,759.5	54.8	27.7	56.0	58.2	54.8	55.0	53.9	57.1	56.4	
13	13	5,001.2	54.4	27.0	55.0	56.9	57.2	53.1	53.2	56.6	57.6	
14	14	5,227.4	53.0	26.8	53.3	53.9	54.8	51.7	51.5	54.0	56.1	
15	15	5,452.4	51.6	25.1	51.6	51.8	49.9	50.9	49.7	52.8	53.5	
16	16	5,684.0	48.0	22.1	48.3	49.7	37.3	48.2	45.6	52.8	50.4	
17	17	5,887.7	43.0	19.3	42.4	39.8	23.4	40.9	41.9	46.0	42.8	
18	18	5,953.5	22.3	9.7	23.0	22.1	8.9	22.5	22.6	23.4	24.3	
19	19	5,842.2	1.8	0.9	1.8	1.9	0.7	1.9	2.0	2.1	3.2	
20	20	5,670.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
21	21	5,484.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
22	22	5,098.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23	23	4,620.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
24	24	4,037.9	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:  
**March, 2023**

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	14,907	26.8%	0.4%	3,374,764
LAKE PLACID	45.0	7,213	21.5%	0.2%	
TRENTON	74.9	15,171	27.2%	0.4%	
COLUMBIA	74.9	15,108	27.1%	0.4%	
DEBARY	74.5	12,760	23.0%	0.4%	
SANTA FE	74.9	14,634	26.3%	0.4%	
TWIN RIVERS	74.9	14,484	26.0%	0.4%	
DUETTE	74.5	15,924	28.7%	0.5%	
SANDY CREEK	74.9	14,830	26.6%	0.4%	
CHARLIE CREEK	74.9	17,385	31.2%	0.5%	
<b>Total:</b>	<b>718.3</b>	<b>142,416.0</b>	<b>26.6%</b>	<b>4.2%</b>	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	130,954	\$2.57	351	\$122.45	547	\$51.82
LAKE PLACID	63,364	\$2.57	170	\$122.45	265	\$51.82
TRENTON	133,273	\$2.57	357	\$122.45	557	\$51.82
COLUMBIA	132,720	\$2.57	356	\$122.45	555	\$51.82
DEBARY	112,093	\$2.57	301	\$122.45	468	\$51.82
SANTA FE	128,556	\$2.57	345	\$122.45	537	\$51.82
TWIN RIVERS	127,238	\$2.57	341	\$122.45	532	\$51.82
DUETTE	139,888	\$2.57	375	\$122.45	584	\$51.82
SANDY CREEK	130,278	\$2.57	349	\$122.45	544	\$51.82
CHARLIE CREEK	152,723	\$2.57	409	\$122.45	638	\$51.82
<b>Total:</b>	<b>1,251,088</b>	<b>\$3,217,499</b>	<b>3,355</b>	<b>\$410,769</b>	<b>5,227</b>	<b>\$270,901</b>

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	9,223	3	1	0
LAKE PLACID	4,463	2	0	0
TRENTON	9,386	3	1	0
COLUMBIA	9,347	3	1	0
DEBARY	7,894	3	1	0
SANTA FE	9,054	3	1	0
TWIN RIVERS	8,961	3	1	0
DUETTE	9,852	3	1	0
SANDY CREEK	9,175	3	1	0
CHARLIE CREEK	10,756	4	1	0
<b>Total:</b>	<b>88,111</b>	<b>30</b>	<b>10</b>	<b>0</b>

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$54,084	\$642,342	\$313,210	\$16,388	\$0	\$1,026,024
LAKE PLACID	\$62,109	\$349,168	\$168,705	\$8,683	\$0	\$588,665
TRENTON	\$72,693	\$571,835	\$277,662	\$17,550	\$0	\$939,740
COLUMBIA	\$36,015	\$644,305	\$295,284	\$17,645	\$0	\$993,249
DEBARY	\$48,391	\$521,932	\$245,835	\$14,286	\$0	\$830,444
SANTA FE	\$40,437	\$649,125	\$288,888	\$17,384	\$0	\$995,835
TWIN RIVERS	\$43,746	\$597,859	\$263,364	\$15,572	\$0	\$920,541
DUETTE	\$51,567	\$628,359	\$273,336	\$20,420	\$0	\$973,683
SANDY CREEK	\$52,359	\$485,616	\$254,256	\$16,083	\$0	\$808,313
CHARLIE CREEK	\$45,815	\$511,413	\$268,112	\$21,047	\$0	\$846,387
<b>Total:</b>	<b>\$507,216</b>	<b>\$5,601,955</b>	<b>\$2,648,653</b>	<b>\$165,058</b>	<b>\$0</b>	<b>\$8,922,881</b>

Notes:

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

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	39,258	24.3%	0.6%	6,045,804
LAKE PLACID	45.0	16,289	16.8%	0.3%	
TRENTON	74.9	38,397	23.7%	0.6%	
COLUMBIA	74.9	37,324	23.1%	0.6%	
DEBARY	74.5	34,758	21.6%	0.6%	
SANTA FE	74.9	30,743	19.0%	0.5%	
TWIN RIVERS	74.9	34,446	21.3%	0.6%	
DUETTE	74.5	39,009	24.2%	0.6%	
SANDY CREEK	74.9	35,411	21.9%	0.6%	
CHARLIE CREEK	74.9	43,990	27.2%	0.7%	
<b>Total:</b>	<b>718.3</b>	<b>349,625</b>	<b>22.5%</b>	<b>5.8%</b>	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	309,680	\$2.83	412	\$124.93	627	\$54.49
LAKE PLACID	130,047	\$2.80	192	\$124.39	295	\$53.93
TRENTON	303,471	\$2.83	416	\$124.86	632	\$54.36
COLUMBIA	295,685	\$2.82	412	\$124.74	627	\$54.26
DEBARY	273,112	\$2.85	357	\$125.17	539	\$54.64
SANTA FE	248,556	\$2.71	378	\$123.72	594	\$53.61
TWIN RIVERS	273,704	\$2.81	391	\$124.60	597	\$54.12
DUETTE	309,597	\$2.81	432	\$124.62	661	\$54.21
SANDY CREEK	281,450	\$2.81	400	\$124.58	612	\$54.13
CHARLIE CREEK	348,346	\$2.81	475	\$124.72	726	\$54.33
<b>Total:</b>	<b>2,773,649</b>	<b>\$7,790,800</b>	<b>3,865</b>	<b>\$481,711</b>	<b>5,909</b>	<b>\$320,335</b>

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	20,262	5	1	0
LAKE PLACID	8,582	2	1	0
TRENTON	19,898	5	1	0
COLUMBIA	19,413	5	1	0
DEBARY	17,839	5	1	0
SANTA FE	16,470	5	1	0
TWIN RIVERS	18,008	5	1	0
DUETTE	20,335	5	1	0
SANDY CREEK	18,513	5	1	0
CHARLIE CREEK	22,840	6	1	0
<b>Total:</b>	<b>182,160</b>	<b>49</b>	<b>11</b>	<b>1</b>

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$513,977	\$1,933,695	\$939,623	\$49,164	\$0	\$3,436,459
LAKE PLACID	\$329,358	\$1,050,989	\$506,116	\$26,049	\$0	\$1,912,513
TRENTON	\$267,071	\$1,721,306	\$832,986	\$52,650	\$0	\$2,874,013
COLUMBIA	\$127,882	\$1,939,261	\$885,852	\$52,935	\$0	\$3,005,929
DEBARY	\$111,033	\$1,570,907	\$737,505	\$42,858	\$0	\$2,462,303
SANTA FE	\$150,121	\$1,953,513	\$866,664	\$52,152	\$0	\$3,022,450
TWIN RIVERS	\$543,895	\$1,799,166	\$790,093	\$46,716	\$0	\$3,179,870
DUETTE	\$165,354	\$1,890,966	\$820,009	\$61,260	\$0	\$2,937,589
SANDY CREEK	\$150,591	\$1,461,235	\$762,767	\$48,250	\$0	\$2,422,843
CHARLIE CREEK	\$371,218	\$1,541,379	\$803,439	\$63,142	\$0	\$2,779,177
<b>Total:</b>	<b>\$2,730,500</b>	<b>\$16,862,417</b>	<b>\$7,945,054</b>	<b>\$495,176</b>	<b>\$0</b>	<b>\$28,033,147</b>

Notes: