



Stephanie A. Cuello
SENIOR COUNSEL

July 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 June 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 July, 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
June, 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	4,673.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2	2	4,287.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3	3	4,016.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4	4	3,858.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	5	3,809.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6	6	3,880.2	0.2	0.0	0.1	0.2	0.2	0.1	0.0	0.1	0.2	
7	7	4,057.7	9.6	4.2	7.1	8.2	3.0	11.0	10.5	12.8	7.2	
8	8	4,328.7	31.4	14.8	23.6	23.4	12.7	31.7	33.2	40.9	28.0	
9	9	4,725.7	43.0	19.7	32.3	31.8	25.3	42.3	46.4	49.7	42.4	
10	10	5,185.6	48.6	22.2	35.1	38.6	35.0	50.4	53.2	53.2	51.3	
11	11	5,715.1	49.9	22.3	36.2	40.8	40.5	50.1	54.6	53.4	50.8	
12	12	6,253.8	48.3	22.2	35.9	41.2	40.3	49.3	52.1	52.4	53.4	
13	13	6,850.2	48.3	22.6	35.8	40.8	39.2	48.5	51.2	49.3	49.9	
14	14	7,289.5	46.0	22.7	34.6	42.0	37.5	49.3	48.0	48.0	45.4	
15	15	7,605.1	39.7	20.8	30.9	39.5	31.8	47.8	41.4	44.9	40.9	
16	16	7,810.7	39.0	18.3	27.9	33.4	24.9	43.6	40.7	37.1	38.3	
17	17	7,918.4	36.9	14.7	24.9	28.8	17.6	38.1	38.1	36.9	36.7	
18	18	7,904.9	28.1	10.1	18.7	20.1	8.0	26.2	29.4	26.6	27.4	
19	19	7,679.5	8.5	2.4	5.5	6.0	1.4	7.8	9.2	6.4	9.1	
20	20	7,267.6	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.3	
21	21	6,857.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
22	22	6,452.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23	23	5,864.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
24	24	5,215.6	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:
June, 2023

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	16,532	30.7%	0.4%	4,061,777
LAKE PLACID	45.0	6,105	18.8%	0.2%	
TRENTON	74.9	12,276	22.8%	0.3%	
COLUMBIA	74.9	13,067	24.2%	0.3%	
DEBARY	74.5	10,254	19.1%	0.3%	
SANTA FE	74.9	12,624	23.4%	0.3%	
TWIN RIVERS	74.9	13,010	24.1%	0.3%	
DUETTE	74.5	13,082	24.4%	0.3%	
SANDY CREEK	74.9	15,282	28.3%	0.4%	
CHARLIE CREEK	74.9	15,359	28.5%	0.4%	
Total:	718.3	127,591.0	24.7%	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	137,833	\$2.67	675	\$108.55	893	\$45.10
LAKE PLACID	50,900	\$2.67	249	\$108.55	330	\$45.10
TRENTON	102,350	\$2.67	501	\$108.55	663	\$45.10
COLUMBIA	108,944	\$2.67	534	\$108.55	706	\$45.10
DEBARY	85,491	\$2.67	419	\$108.55	554	\$45.10
SANTA FE	105,251	\$2.67	515	\$108.55	682	\$45.10
TWIN RIVERS	108,469	\$2.67	531	\$108.55	703	\$45.10
DUETTE	109,069	\$2.67	534	\$108.55	707	\$45.10
SANDY CREEK	127,412	\$2.67	624	\$108.55	825	\$45.10
CHARLIE CREEK	128,054	\$2.67	627	\$108.55	830	\$45.10
Total:	1,063,773	\$2,835,051	5,210	\$565,504	6,892	\$310,813

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	10,492	6	2	0
LAKE PLACID	3,875	2	1	0
TRENTON	7,791	4	1	0
COLUMBIA	8,293	5	1	0
DEBARY	6,508	4	1	0
SANTA FE	8,012	4	1	0
TWIN RIVERS	8,257	5	1	0
DUETTE	8,303	5	1	0
SANDY CREEK	9,699	5	2	0
CHARLIE CREEK	9,748	5	2	0
Total:	80,976	45	13	1

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$67,351	\$635,659	\$313,210	\$16,388	\$0	\$1,032,608
LAKE PLACID	\$269,252	\$345,682	\$168,705	\$8,683	\$0	\$792,322
TRENTON	\$118,279	\$566,034	\$277,662	\$17,550	\$0	\$979,525
COLUMBIA	\$54,259	\$637,960	\$295,284	\$17,645	\$0	\$1,005,148
DEBARY	\$76,402	\$516,820	\$245,835	\$14,286	\$0	\$853,343
SANTA FE	\$40,662	\$645,106	\$289,761	\$17,384	\$0	\$992,913
TWIN RIVERS	\$56,491	\$592,270	\$263,364	\$15,572	\$0	\$927,697
DUETTE	\$56,612	\$622,523	\$273,336	\$20,420	\$0	\$972,891
SANDY CREEK	\$107,201	\$481,256	\$251,764	\$16,083	\$0	\$856,304
CHARLIE CREEK	\$61,871	\$505,283	\$267,822	\$21,047	\$0	\$856,023
Total:	\$908,380	\$5,548,593	\$2,646,743	\$165,058	\$0	\$9,268,774

Notes:

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

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	82,135	25.2%	0.4%	20,325,106
LAKE PLACID	45.0	35,217	18.0%	0.2%	
TRENTON	74.9	73,775	22.7%	0.4%	
COLUMBIA	74.9	71,824	22.1%	0.4%	
DEBARY	74.5	64,813	20.0%	0.3%	
SANTA FE	74.9	72,687	22.3%	0.4%	
TWIN RIVERS	74.9	77,487	23.8%	0.4%	
DUETTE	74.5	77,662	24.0%	0.4%	
SANDY CREEK	74.9	79,537	24.4%	0.4%	
CHARLIE CREEK	74.9	93,125	28.6%	0.5%	
Total:	718.3	728,262	23.3%	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	664,293	\$2.68	1,852	\$113.88	2,767	\$50.57
LAKE PLACID	286,623	\$2.65	824	\$114.31	1,237	\$50.89
TRENTON	596,650	\$2.69	1,635	\$114.88	2,417	\$50.99
COLUMBIA	580,922	\$2.68	1,563	\$114.39	2,344	\$50.75
DEBARY	521,971	\$2.70	1,378	\$114.91	2,047	\$51.09
SANTA FE	595,436	\$2.60	1,768	\$113.99	2,678	\$50.88
TWIN RIVERS	629,662	\$2.65	1,818	\$114.19	2,735	\$50.97
DUETTE	628,573	\$2.67	1,676	\$114.16	2,558	\$50.89
SANDY CREEK	646,641	\$2.65	1,889	\$114.01	2,819	\$50.71
CHARLIE CREEK	754,618	\$2.66	2,101	\$114.26	3,165	\$51.00
Total:	5,905,389	\$15,725,521	16,504	\$1,886,339	24,768	\$1,260,033

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	46,799	19	5	0
LAKE PLACID	20,293	8	2	0
TRENTON	41,882	16	4	0
COLUMBIA	40,747	16	4	0
DEBARY	36,479	14	4	0
SANTA FE	42,400	17	5	0
TWIN RIVERS	44,617	18	5	0
DUETTE	44,126	17	5	0
SANDY CREEK	45,851	19	5	0
CHARLIE CREEK	53,207	21	6	0
Total:	416,402	166	46	2

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$725,215	\$3,847,356	\$1,879,254	\$81,940	\$0	\$6,533,765
LAKE PLACID	\$705,161	\$2,091,521	\$1,012,232	\$52,098	\$0	\$3,861,012
TRENTON	\$822,893	\$3,425,209	\$1,665,972	\$105,300	\$0	\$6,019,374
COLUMBIA	\$278,388	\$3,859,487	\$1,771,703	\$105,870	\$0	\$6,015,448
DEBARY	\$274,296	\$3,126,480	\$1,475,009	\$85,716	\$0	\$4,961,501
SANTA FE	\$291,464	\$3,893,879	\$1,735,076	\$104,304	\$0	\$6,024,723
TWIN RIVERS	\$672,144	\$3,581,565	\$1,580,186	\$93,432	\$0	\$5,927,327
DUETTE	\$370,757	\$3,764,319	\$1,640,017	\$122,520	\$0	\$5,897,613
SANDY CREEK	\$930,293	\$2,909,335	\$1,523,042	\$96,498	\$0	\$5,459,168
CHARLIE CREEK	\$492,077	\$3,067,952	\$1,606,794	\$126,282	\$0	\$5,293,105
Total:	\$5,562,688	\$33,567,103	\$15,889,285	\$973,960	\$0	\$55,993,036

Notes: