



Stephanie A. Cuello
SENIOR COUNSEL

December 22, 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 November 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 22nd day of December, 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
November, 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	3,427.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	2	3,204.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	3	3,085.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	4	3,035.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	5	3,091.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	6	3,285.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	7	3,628.8	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1
8	8	3,895.9	5.4	3.1	4.0	7.1	3.9	5.3	4.4	7.4	4.2
9	9	4,071.6	26.3	11.0	17.9	24.1	14.5	21.0	22.9	28.3	23.2
10	10	4,180.5	35.2	15.4	24.7	31.9	24.6	31.4	31.3	37.3	33.3
11	11	4,307.0	39.2	17.9	25.6	35.0	32.9	34.1	35.4	40.5	37.8
12	12	4,424.4	41.0	19.5	26.2	36.8	38.0	35.5	36.9	41.2	40.2
13	13	4,582.2	42.0	21.1	25.3	34.5	36.6	33.2	37.9	41.6	39.6
14	14	4,723.4	40.6	19.2	24.1	31.9	32.0	30.7	36.4	41.3	40.5
15	15	4,853.3	37.2	15.9	22.5	32.1	27.3	30.4	33.1	37.3	37.2
16	16	4,967.6	34.3	13.0	19.8	25.8	18.9	25.9	30.1	29.3	32.8
17	17	5,057.8	18.1	5.7	10.3	14.9	8.0	13.6	16.9	14.6	21.9
18	18	5,129.1	1.2	0.4	0.8	1.1	0.4	0.8	1.0	1.3	3.0
19	19	5,165.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	20	5,001.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	21	4,776.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	22	4,488.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	23	4,108.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	24	3,700.3	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:
November, 2023

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	9,618	17.8%	0.3%	2,973,951
LAKE PLACID	45.0	4,263	13.2%	0.1%	
TRENTON	74.9	6,040	11.2%	0.2%	
COLUMBIA	74.9	8,253	15.3%	0.3%	
DEBARY	74.5	7,116	13.3%	0.2%	
SANTA FE	74.9	7,860	14.6%	0.3%	
TWIN RIVERS	74.9	8,587	15.9%	0.3%	
DUETTE	74.5	9,602	17.9%	0.3%	
SANDY CREEK	74.9	9,416	17.5%	0.3%	
CHARLIE CREEK	74.9	9,404	17.4%	0.3%	
Total:	718.3	80,159.0	15.5%	2.7%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	61,595	\$2.92	54	\$127.72	1,264	\$50.83
LAKE PLACID	27,301	\$2.92	24	\$127.72	560	\$50.83
TRENTON	38,681	\$2.92	34	\$127.72	794	\$50.83
COLUMBIA	52,854	\$2.92	46	\$127.72	1,085	\$50.83
DEBARY	45,572	\$2.92	40	\$127.72	935	\$50.83
SANTA FE	50,337	\$2.92	44	\$127.72	1,033	\$50.83
TWIN RIVERS	54,993	\$2.92	48	\$127.72	1,129	\$50.83
DUETTE	61,493	\$2.92	54	\$127.72	1,262	\$50.83
SANDY CREEK	60,302	\$2.92	53	\$127.72	1,238	\$50.83
CHARLIE CREEK	60,225	\$2.92	53	\$127.72	1,236	\$50.83
Total:	513,352	\$1,501,215	448	\$57,195	10,535	\$535,566

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	6,331	2	2	0
LAKE PLACID	2,806	1	1	0
TRENTON	3,976	1	1	0
COLUMBIA	5,432	2	2	0
DEBARY	4,684	1	1	0
SANTA FE	5,174	2	2	0
TWIN RIVERS	5,652	2	2	0
DUETTE	6,320	2	2	0
SANDY CREEK	6,198	2	2	0
CHARLIE CREEK	6,190	2	2	0
Total:	52,762	17	16	1

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$583,699	\$625,141	\$313,675	\$16,388	\$0	\$1,538,903
LAKE PLACID	\$102,514	\$339,872	\$168,705	\$8,683	\$0	\$619,774
TRENTON	\$84,909	\$556,715	\$277,799	\$17,550	\$0	\$936,973
COLUMBIA	\$101,934	\$631,652	\$297,053	\$17,645	\$0	\$1,048,284
DEBARY	\$65,990	\$508,302	\$245,835	\$14,286	\$0	\$834,413
SANTA FE	\$35,930	\$634,875	\$289,784	\$17,384	\$0	\$977,973
TWIN RIVERS	\$89,406	\$582,956	\$263,364	\$15,572	\$0	\$951,298
DUETTE	\$51,850	\$612,760	\$273,380	\$20,420	\$0	\$958,410
SANDY CREEK	\$195,035	\$474,214	\$253,027	\$16,083	\$0	\$938,359
CHARLIE CREEK	\$65,654	\$497,966	\$267,285	\$21,047	\$0	\$851,952
Total:	\$1,376,921	\$5,464,452	\$2,649,907	\$165,058	\$0	\$9,656,338

Notes:

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

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	153,137	25.5%	0.4%	39,798,335
LAKE PLACID	45.0	60,077	16.7%	0.2%	
TRENTON	74.9	136,218	22.7%	0.3%	
COLUMBIA	74.9	137,170	22.8%	0.3%	
DEBARY	74.5	113,980	19.1%	0.3%	
SANTA FE	74.9	130,736	21.8%	0.3%	
TWIN RIVERS	74.9	140,679	23.4%	0.4%	
DUETTE	74.5	134,878	22.6%	0.3%	
SANDY CREEK	74.9	149,356	24.9%	0.4%	
CHARLIE CREEK	74.9	159,091	26.5%	0.4%	
Total:	718.3	1,315,322	22.8%	3.3%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	1,189,481	\$2.97	7,474	\$127.31	8,385	\$51.80
LAKE PLACID	469,216	\$2.91	2,614	\$126.82	3,241	\$51.90
TRENTON	1,061,266	\$2.98	6,800	\$127.98	7,233	\$52.10
COLUMBIA	1,064,871	\$2.98	6,786	\$128.29	7,503	\$52.07
DEBARY	885,418	\$2.96	5,185	\$128.19	5,914	\$52.12
SANTA FE	1,024,337	\$2.91	6,197	\$127.49	7,257	\$52.06
TWIN RIVERS	1,097,324	\$2.94	6,810	\$127.54	7,706	\$52.00
DUETTE	1,048,467	\$2.93	5,742	\$127.05	7,192	\$51.96
SANDY CREEK	1,156,818	\$2.96	7,603	\$127.62	8,266	\$51.85
CHARLIE CREEK	1,242,042	\$2.92	7,265	\$126.84	8,404	\$51.90
Total:	10,239,239	\$30,163,303	62,476	\$7,966,565	71,100	\$3,695,381

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	92,686	51	17	1
LAKE PLACID	36,272	19	6	0
TRENTON	82,250	46	14	1
COLUMBIA	83,010	46	15	1
DEBARY	68,151	36	12	1
SANTA FE	79,779	44	14	1
TWIN RIVERS	85,404	47	15	1
DUETTE	80,902	42	14	1
SANDY CREEK	90,520	51	16	1
CHARLIE CREEK	95,817	51	16	1
Total:	794,792	433	140	7

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$1,578,851	\$6,993,166	\$3,445,770	\$147,492	\$0	\$12,165,279
LAKE PLACID	\$1,336,857	\$3,802,504	\$1,855,760	\$86,830	\$0	\$7,081,951
TRENTON	\$1,240,747	\$6,227,205	\$3,054,558	\$193,050	\$0	\$10,715,560
COLUMBIA	\$846,689	\$7,028,118	\$3,251,606	\$176,450	\$0	\$11,302,863
DEBARY	\$614,498	\$5,685,027	\$2,704,185	\$142,860	\$0	\$9,146,570
SANTA FE	\$489,446	\$7,088,769	\$3,183,996	\$173,840	\$0	\$10,936,051
TWIN RIVERS	\$1,541,992	\$6,514,974	\$2,897,009	\$155,720	\$0	\$11,109,695
DUETTE	\$623,232	\$6,847,752	\$3,006,916	\$204,200	\$0	\$10,682,100
SANDY CREEK	\$1,480,094	\$5,294,392	\$2,789,065	\$160,830	\$0	\$9,724,381
CHARLIE CREEK	\$1,220,461	\$5,575,506	\$2,941,715	\$210,470	\$0	\$9,948,152
Total:	\$10,972,867	\$61,057,413	\$29,130,580	\$1,651,742	\$0	\$102,812,602

Notes: