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SENIOR COUNSEL

January 25, 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 December 2022, 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 25th day of January, 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>Corey Allain 22 Nucor Drive Frostproof FL 33843 corey.allain@nucor.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>M. Wessling/ P. Christensen / C. Rehwinkel Office of Public Counsel c/o The Florida Legislature 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>Peter J. Mattheis / Michael K. Lavanga / Joseph R. Briscar c/o Stone Law Firm 1025 Thomas Jefferson Street, N.W. Eighth Floor, West Tower Washington, DC 20007 jrb@smxblaw.com mkl@smxblaw.com pjm@smxblaw.com</p> <p>Kenneth Hoffman Florida Power & Light Company 134 W. Jefferson Street Tallahassee, FL 32301-1713 ken.hoffman@fpl.com</p> <p>James W. Brew/Laura Wynn Baker c/o Stone Law Firm Washington DC 20007 jbrew@smxblaw.com lwb@smxblaw.com</p>
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Duke Energy Florida, LLC
 Actual Data for Solar Generation Facilities
 Solar Base Rate Adjustment (SoBRA) Reporting
December, 2022

		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	3,773.4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	2	3,580.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	3	3,499.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	4	3,505.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	5	3,596.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	6	3,860.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	7	4,279.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	8	4,668.8	1.3	0.5	1.7	2.1	1.8	1.8	1.2	2.2	0.5	3.3
9	9	4,850.5	22.1	4.5	22.6	21.1	14.0	19.9	19.4	19.6	17.8	24.3
10	10	4,920.6	39.9	7.6	38.6	34.1	29.0	35.8	35.1	31.4	35.5	35.2
11	11	4,921.0	42.6	9.4	42.7	36.6	40.1	38.5	37.7	34.0	41.6	40.3
12	12	4,883.2	40.8	12.9	40.9	38.4	44.2	39.4	36.6	35.5	43.4	40.0
13	13	4,885.5	40.1	15.4	39.1	37.3	41.5	37.9	36.3	38.6	42.0	41.0
14	14	4,908.5	41.3	16.0	37.7	34.5	37.1	37.0	36.5	35.6	42.1	39.8
15	15	4,946.1	42.1	16.3	37.2	32.5	28.5	34.9	36.5	31.6	42.4	35.9
16	16	5,004.3	38.7	14.4	32.8	28.2	19.8	32.1	34.4	28.1	35.1	31.0
17	17	5,126.4	21.3	6.5	18.3	16.5	8.0	16.1	19.3	15.2	22.7	16.5
18	18	5,346.6	1.2	0.8	1.3	1.2	0.4	0.9	1.2	1.1	2.5	1.1
19	19	5,548.4	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
20	20	5,429.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	21	5,238.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	22	4,943.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	23	4,537.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	24	4,104.4	0.0	0.5	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:

December, 2022

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	10,275	18.4%	0.3%	3,350,604
LAKE PLACID	45.0	3,277	9.8%	0.1%	
TRENTON	74.9	9,702	17.4%	0.3%	
COLUMBIA	74.9	8,755	15.7%	0.3%	
DEBARY	74.5	8,195	14.8%	0.2%	
SANTA FE	74.9	9,120	16.4%	0.3%	
TWIN RIVERS	74.9	9,122	16.4%	0.3%	
DUETTE	74.5	8,463	15.3%	0.3%	
SANDY CREEK	74.9	10,098	18.1%	0.3%	
CHARLIE CREEK	74.9	9,558	17.2%	0.3%	
Total:	718.3	86,565.0	16.2%	2.6%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	57,467	\$6.53	523	\$138.70	1,204	\$99.69
LAKE PLACID	18,328	\$6.53	167	\$138.70	384	\$99.69
TRENTON	54,262	\$6.53	494	\$138.70	1,136	\$99.69
COLUMBIA	48,966	\$6.53	446	\$138.70	1,025	\$99.69
DEBARY	45,834	\$6.53	417	\$138.70	960	\$99.69
SANTA FE	51,007	\$6.53	464	\$138.70	1,068	\$99.69
TWIN RIVERS	51,019	\$6.53	465	\$138.70	1,068	\$99.69
DUETTE	47,333	\$6.53	431	\$138.70	991	\$99.69
SANDY CREEK	56,477	\$6.53	514	\$138.70	1,183	\$99.69
CHARLIE CREEK	53,457	\$6.53	487	\$138.70	1,120	\$99.69
Total:	484,150	\$3,163,003	4,408	\$611,393	10,139	\$1,010,810

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	6,174	1	2	0
LAKE PLACID	1,969	0	1	0
TRENTON	5,830	1	2	0
COLUMBIA	5,261	1	1	0
DEBARY	4,924	1	1	0
SANTA FE	5,480	1	2	0
TWIN RIVERS	5,481	1	2	0
DUETTE	5,085	1	1	0
SANDY CREEK	6,067	1	2	0
CHARLIE CREEK	5,743	1	2	0
Total:	52,013	11	14	1

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$61,272	\$649,016	\$313,207	\$16,388	\$0	\$1,039,882
LAKE PLACID	\$41,993	\$352,511	\$168,583	\$8,683	\$0	\$571,769
TRENTON	\$121,029	\$577,477	\$277,525	\$17,550	\$0	\$993,582
COLUMBIA	\$48,456	\$650,650	\$295,284	\$17,645	\$0	\$1,012,035
DEBARY	\$83,901	\$527,043	\$245,835	\$14,286	\$0	\$871,065
SANTA FE	\$42,153	\$655,262	\$288,888	\$17,384	\$0	\$1,003,687
TWIN RIVERS	\$30,646	\$603,448	\$263,364	\$15,572	\$0	\$913,030
DUETTE	\$37,540	\$634,253	\$275,037	\$20,420	\$0	\$967,250
SANDY CREEK	\$62,714	\$490,004	\$254,256	\$16,083	\$0	\$823,056
CHARLIE CREEK	\$0	\$514,113	\$261,482	\$0	\$0	\$775,595
Total:	\$529,704	\$5,653,777	\$2,643,461	\$144,011	\$0	\$8,970,952

Notes:

Duke Energy Florida, LLC
Actual Data for Solar Generation Facilities
Solar Base Rate Adjustment (SoBRA) Reporting
YEAR-TO-DATE THROUGH:
December, 2022

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	172,670	26.3%	0.4%	41,557,566
LAKE PLACID	45.0	77,822	19.7%	0.2%	
TRENTON	74.9	165,524	25.2%	0.4%	
COLUMBIA	74.9	176,925	27.0%	0.4%	
DEBARY	74.5	140,763	21.6%	0.3%	
SANTA FE	74.9	159,826	24.4%	0.4%	
TWIN RIVERS	74.9	166,227	25.3%	0.4%	
DUETTE	74.5	159,777	24.5%	0.4%	
SANDY CREEK	74.9	115,058	28.0%	0.3%	
CHARLIE CREEK	74.9	46,611	18.0%	0.1%	
Total:	718.3	1,381,203	24.5%	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	1,326,560	\$7.93	16,509	\$163.54	13,411	\$169.75
LAKE PLACID	594,852	\$7.85	7,160	\$163.42	5,777	\$167.84
TRENTON	1,263,399	\$7.72	14,564	\$162.82	12,530	\$164.52
COLUMBIA	1,357,299	\$7.81	16,224	\$163.65	13,374	\$167.39
DEBARY	1,072,835	\$7.74	12,539	\$162.86	10,593	\$164.26
SANTA FE	1,221,735	\$7.77	14,332	\$163.63	12,219	\$164.37
TWIN RIVERS	1,270,368	\$7.77	15,025	\$163.49	12,699	\$165.10
DUETTE	1,213,287	\$7.77	14,292	\$163.56	12,099	\$162.70
SANDY CREEK	914,022	\$8.62	14,251	\$163.92	8,973	\$202.39
CHARLIE CREEK	392,310	\$8.49	4,972	\$154.16	4,398	\$177.19
Total:	10,626,668	\$84,459,889	129,869	\$21,104,424	106,073	\$18,090,897

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	115,382	115	22	1
LAKE PLACID	51,146	50	9	1
TRENTON	108,861	103	20	1
COLUMBIA	117,043	114	22	1
DEBARY	92,426	88	17	1
SANTA FE	105,593	101	20	1
TWIN RIVERS	109,841	106	21	1
DUETTE	104,819	100	20	1
SANDY CREEK	80,285	93	18	1
CHARLIE CREEK	35,042	32	8	0
Total:	920,438	902	178	10

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$1,236,315	\$7,932,565	\$3,757,664	\$196,656	\$0	\$13,123,200
LAKE PLACID	\$869,300	\$4,282,148	\$2,012,714	\$104,200	\$0	\$7,268,362
TRENTON	\$1,552,827	\$7,055,055	\$3,330,081	\$210,600	\$0	\$12,148,563
COLUMBIA	\$1,100,530	\$7,947,369	\$3,543,677	\$211,735	\$0	\$12,803,311
DEBARY	\$780,500	\$6,436,398	\$2,949,742	\$171,430	\$0	\$10,338,070
SANTA FE	\$682,401	\$8,006,269	\$3,716,235	\$208,608	\$0	\$12,613,513
TWIN RIVERS	\$978,008	\$7,357,655	\$3,054,648	\$186,864	\$0	\$11,577,174
DUETTE	\$557,304	\$7,732,208	\$3,295,821	\$245,040	\$0	\$11,830,373
SANDY CREEK	\$239,825	\$2,938,885	\$1,511,382	\$96,498	\$0	\$4,786,591
CHARLIE CREEK	\$0	\$2,528,802	\$1,037,672	\$0	\$0	\$3,566,474
Total:	\$7,997,010	\$62,217,353	\$28,209,637	\$1,631,631	\$0	\$100,055,631

Notes: