



Stephanie A. Cuello
SENIOR COUNSEL

January 31, 2024

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. 20240007-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 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. 20240007-EI

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail to the following this 31st day of January, 2024.

/s/ Stephanie A. Cuello

Attorney

<p>Adria Harper / Jacob Imig / Saad Farooqi 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 sfarooqi@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>Maria Jose Moncada / Joel Baker Florida Power & Light Company 700 Universe Boulevard (LAW/JB) Juno Beach, FL 33408-0420 maria.moncada@fpl.com joel.baker@fpl.com</p>	<p>W. Trierweiler / P. Christensen / C. Rehwinkel / M. Wessling / O. Ponce / A. Watrous Office of Public Counsel c/o The Florida Legislature 111 West Madison Street, Room 812 Tallahassee, FL 32399-1400 christensen.patty@leg.state.fl.us rehwinkel.charles@leg.state.fl.us wessling.mary@leg.state.fl.us ponce.octavio@leg.state.fl.us watrous.austin@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>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 / Sarah B. Newman Stone Mattheis Xenopoulos & Brew, P.C. 1025 Thomas Jefferson Street, NW Eighth Floor, West Tower Washington, DC 20007 jbrew@smxblaw.com lwb@smxblaw.com sbn@smxblaw.com</p>
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Duke Energy Florida, LLC
 Actual Data for Solar Generation Facilities
 Solar Base Rate Adjustment (SoBRA) Reporting
December, 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:
December, 2023

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	8,433	15.1%	0.3%	2,870,626
LAKE PLACID	45.0	3,176	9.5%	0.1%	
TRENTON	74.9	4,712	8.5%	0.2%	
COLUMBIA	74.9	5,975	10.7%	0.2%	
DEBARY	74.5	7,137	12.9%	0.2%	
SANTA FE	74.9	6,528	11.7%	0.2%	
TWIN RIVERS	74.9	6,530	11.7%	0.2%	
DUETTE	74.5	7,875	14.2%	0.3%	
SANDY CREEK	74.9	7,422	13.3%	0.3%	
CHARLIE CREEK	74.9	7,548	13.5%	0.3%	
Total:	718.3	65,336.0	12.2%	2.3%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	44,425	\$2.84	16	\$118.85	834	\$40.15
LAKE PLACID	16,731	\$2.84	6	\$118.85	314	\$40.15
TRENTON	24,823	\$2.84	9	\$118.85	466	\$40.15
COLUMBIA	31,476	\$2.84	11	\$118.85	591	\$40.15
DEBARY	37,598	\$2.84	13	\$118.85	706	\$40.15
SANTA FE	34,389	\$2.84	12	\$118.85	646	\$40.15
TWIN RIVERS	34,400	\$2.84	12	\$118.85	646	\$40.15
DUETTE	41,485	\$2.84	15	\$118.85	779	\$40.15
SANDY CREEK	39,099	\$2.84	14	\$118.85	734	\$40.15
CHARLIE CREEK	39,763	\$2.84	14	\$118.85	747	\$40.15
Total:	344,190	\$977,974	123	\$14,666	6,465	\$259,579

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	4,398	1	1	0
LAKE PLACID	1,657	0	0	0
TRENTON	2,458	1	1	0
COLUMBIA	3,116	1	1	0
DEBARY	3,722	1	1	0
SANTA FE	3,405	1	1	0
TWIN RIVERS	3,406	1	1	0
DUETTE	4,107	1	1	0
SANDY CREEK	3,871	1	1	0
CHARLIE CREEK	3,937	1	1	0
Total:	34,077	9	10	1

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$172,082	\$622,888	\$313,681	\$16,388	\$0	\$1,125,039
LAKE PLACID	\$197,039	\$338,735	\$168,705	\$8,683	\$0	\$713,162
TRENTON	\$100,762	\$554,787	\$277,828	\$17,550	\$0	\$950,927
COLUMBIA	\$64,364	\$629,713	\$297,053	\$17,645	\$0	\$1,008,775
DEBARY	\$123,323	\$506,598	\$245,835	\$14,286	\$0	\$890,042
SANTA FE	\$36,007	\$632,823	\$289,784	\$17,384	\$0	\$975,998
TWIN RIVERS	\$93,375	\$581,093	\$263,364	\$15,572	\$0	\$953,404
DUETTE	\$46,253	\$548,232	\$254,144	\$20,420	\$0	\$869,048
SANDY CREEK	\$155,714	\$472,776	\$253,065	\$16,083	\$0	\$897,638
CHARLIE CREEK	\$58,779	\$495,628	\$266,416	\$21,047	\$0	\$841,870
Total:	\$1,047,698	\$5,383,273	\$2,629,874	\$165,058	\$0	\$9,225,903

Notes:

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

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	161,570	24.6%	0.4%	42,668,961
LAKE PLACID	45.0	63,253	16.0%	0.1%	
TRENTON	74.9	140,930	21.5%	0.3%	
COLUMBIA	74.9	143,145	21.8%	0.3%	
DEBARY	74.5	121,117	18.6%	0.3%	
SANTA FE	74.9	137,264	20.9%	0.3%	
TWIN RIVERS	74.9	147,209	22.4%	0.3%	
DUETTE	74.5	142,753	21.9%	0.3%	
SANDY CREEK	74.9	156,778	23.9%	0.4%	
CHARLIE CREEK	74.9	166,639	25.4%	0.4%	
Total:	718.3	1,380,658	21.9%	3.2%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	1,233,906	\$2.97	7,490	\$127.29	9,220	\$50.74
LAKE PLACID	485,947	\$2.91	2,620	\$126.80	3,555	\$50.86
TRENTON	1,086,088	\$2.98	6,809	\$127.97	7,699	\$51.38
COLUMBIA	1,096,347	\$2.98	6,797	\$128.28	8,094	\$51.20
DEBARY	923,016	\$2.95	5,198	\$128.16	6,620	\$50.84
SANTA FE	1,058,726	\$2.90	6,210	\$127.47	7,903	\$51.09
TWIN RIVERS	1,131,724	\$2.94	6,822	\$127.52	8,352	\$51.08
DUETTE	1,089,952	\$2.92	5,756	\$127.03	7,971	\$50.80
SANDY CREEK	1,195,917	\$2.95	7,617	\$127.60	9,000	\$50.90
CHARLIE CREEK	1,281,805	\$2.92	7,280	\$126.83	9,151	\$50.94
Total:	10,583,429	\$31,141,454	62,600	\$7,981,211	77,564	\$3,954,449

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	97,084	52	18	1
LAKE PLACID	37,928	19	7	0
TRENTON	84,708	47	15	1
COLUMBIA	86,127	47	16	1
DEBARY	71,874	37	13	1
SANTA FE	83,184	45	15	1
TWIN RIVERS	88,810	48	16	1
DUETTE	85,009	43	15	1
SANDY CREEK	94,391	52	18	1
CHARLIE CREEK	99,754	52	18	1
Total:	828,869	443	150	7

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$1,750,934	\$7,616,054	\$3,759,451	\$147,492	\$0	\$13,273,931
LAKE PLACID	\$1,533,897	\$4,141,239	\$2,024,465	\$86,830	\$0	\$7,786,431
TRENTON	\$1,341,509	\$6,781,992	\$3,332,386	\$193,050	\$0	\$11,648,937
COLUMBIA	\$911,054	\$7,657,831	\$3,548,659	\$176,450	\$0	\$12,293,994
DEBARY	\$737,821	\$6,191,625	\$2,950,020	\$142,860	\$0	\$10,022,326
SANTA FE	\$525,453	\$7,721,592	\$3,473,780	\$173,840	\$0	\$11,894,665
TWIN RIVERS	\$1,635,367	\$7,096,067	\$3,160,373	\$155,720	\$0	\$12,047,527
DUETTE	\$669,485	\$6,748,540	\$3,049,464	\$204,200	\$0	\$10,671,689
SANDY CREEK	\$1,635,808	\$5,767,168	\$3,042,129	\$160,830	\$0	\$10,605,936
CHARLIE CREEK	\$1,279,240	\$6,071,133	\$3,208,131	\$210,470	\$0	\$10,768,974
Total:	\$12,020,568	\$65,793,242	\$31,548,858	\$1,651,742	\$0	\$111,014,410

Notes: