



Stephanie A. Cuello
SENIOR COUNSEL

June 24, 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 May 2024, 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 24th day of June, 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 Tampa Electric Company 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. FIPUG 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 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. PCS Phosphate –White Springs 1025 Thomas Jefferson Street, NW Eighth Floor, West Tower Washington, DC 20007 jbrew@smxblaw.com lwb@smxblaw.com sbn@smxblaw.com</p> <p>Peter J. Mattheis / Michael K. Lavanga / Joseph R. Briscar Stone Mattheis Xenopoulos & Brew, PC NUCOR 1025 Thomas Jefferson Street, NW Eighth Floor, West Tower Washington, DC 20007 pjm@smxblaw.com mkl@smxblaw.com jrb@smxblaw.com</p>
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Duke Energy Florida, LLC
 Actual Data for Solar Generation Facilities
 Solar Base Rate Adjustment (SoBRA) Reporting
May, 2024

		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	4,685.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	2	4,274.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	3	3,998.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	4	3,831.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	5	3,775.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	6	3,865.7	0.3	0.0	0.1	0.3	0.2	0.0	0.0	0.0	0.2
7	7	4,084.5	10.1	4.3	9.8	12.2	3.9	10.8	8.4	11.0	6.3
8	8	4,275.4	31.6	14.3	35.3	32.9	14.7	32.6	27.6	36.0	25.5
9	9	4,639.5	44.5	22.8	48.8	47.7	29.6	48.7	39.7	49.7	44.3
10	10	5,102.8	48.9	25.8	51.4	52.1	40.6	51.7	46.1	55.1	53.2
11	11	5,611.6	53.0	29.4	50.9	52.0	47.4	51.3	51.4	55.2	55.5
12	12	6,159.0	56.3	29.6	53.9	53.0	49.2	52.5	55.2	54.5	56.9
13	13	6,680.8	52.9	30.0	54.0	54.5	48.8	51.5	52.6	56.6	60.3
14	14	7,142.6	52.6	29.9	49.0	50.2	47.1	47.1	53.2	55.2	61.0
15	15	7,511.4	53.6	28.8	50.7	52.5	42.5	49.6	51.4	54.6	60.4
16	16	7,840.2	50.1	27.0	46.5	47.5	32.8	45.9	46.3	54.5	57.3
17	17	8,095.8	43.2	20.0	42.5	41.8	24.3	40.2	38.1	50.0	50.3
18	18	8,209.3	34.9	12.0	33.4	31.7	11.3	33.5	30.6	32.0	38.0
19	19	8,073.9	12.3	3.2	10.7	10.5	2.3	9.8	10.4	7.7	15.4
20	20	7,638.8	0.3	0.1	0.3	0.2	0.1	0.2	0.2	0.0	0.5
21	21	7,225.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	22	6,716.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	23	6,040.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	24	5,322.6	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:
May, 2024

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	16,882	30.3%	0.4%	4,180,677
LAKE PLACID	45.0	8,596	25.7%	0.2%	
TRENTON	74.9	16,654	29.9%	0.4%	
COLUMBIA	74.9	16,710	30.0%	0.4%	
DEBARY	74.5	12,241	22.1%	0.3%	
SANTA FE	74.9	16,286	29.2%	0.4%	
TWIN RIVERS	74.9	15,847	28.4%	0.4%	
DUETTE	74.5	17,741	32.0%	0.4%	
SANDY CREEK	74.9	18,130	32.5%	0.4%	
CHARLIE CREEK	74.9	18,123	32.5%	0.4%	
Total:	718.3	157,210.0	29.4%	3.8%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	116,615	\$3.20	5,379	\$110.43	895	\$50.04
LAKE PLACID	59,378	\$3.20	2,739	\$110.43	456	\$50.04
TRENTON	115,040	\$3.20	5,307	\$110.43	883	\$50.04
COLUMBIA	115,427	\$3.20	5,325	\$110.43	886	\$50.04
DEBARY	84,557	\$3.20	3,901	\$110.43	649	\$50.04
SANTA FE	112,498	\$3.20	5,190	\$110.43	863	\$50.04
TWIN RIVERS	109,466	\$3.20	5,050	\$110.43	840	\$50.04
DUETTE	122,549	\$3.20	5,653	\$110.43	941	\$50.04
SANDY CREEK	125,236	\$3.20	5,777	\$110.43	961	\$50.04
CHARLIE CREEK	125,188	\$3.20	5,775	\$110.43	961	\$50.04
Total:	1,085,954	\$3,479,756	50,095	\$5,532,203	8,335	\$417,098

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	11,380	25	4	0
LAKE PLACID	5,795	13	2	0
TRENTON	11,227	24	4	0
COLUMBIA	11,264	25	4	0
DEBARY	8,252	18	3	0
SANTA FE	10,979	24	4	0
TWIN RIVERS	10,683	23	4	0
DUETTE	11,959	26	4	0
SANDY CREEK	12,222	27	4	0
CHARLIE CREEK	12,217	27	4	0
Total:	105,977	231	37	1

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$119,408	\$611,706	\$313,656	\$16,388	\$0	\$1,061,158
LAKE PLACID	\$101,171	\$334,596	\$171,532	\$8,683	\$0	\$615,983
TRENTON	(\$200,103)	\$545,066	\$280,605	\$17,550	\$0	\$643,118
COLUMBIA	\$83,974	\$619,325	\$297,137	\$17,645	\$0	\$1,018,081
DEBARY	(\$22,503)	\$498,079	\$245,835	\$14,286	\$0	\$735,697
SANTA FE	\$44,248	\$622,566	\$289,784	\$17,384	\$0	\$973,982
TWIN RIVERS	\$35,093	\$571,675	\$263,321	\$15,572	\$0	\$885,662
DUETTE	\$80,940	\$533,217	\$401,278	\$20,420	\$0	\$1,035,855
SANDY CREEK	\$585,132	\$465,036	\$252,819	\$16,083	\$0	\$1,319,070
CHARLIE CREEK	\$96,490	\$487,878	\$266,154	\$21,047	\$0	\$871,569
Total:	\$923,850	\$5,289,145	\$2,782,122	\$165,058	\$0	\$9,160,175

Notes: Sandy Creek - May lease payment Trenton - Material returns Debary - Material returns

Duke Energy Florida, LLC
Actual Data for Solar Generation Facilities
Solar Base Rate Adjustment (SoBRA) Reporting
YEAR-TO-DATE THROUGH:
May, 2024

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	65,874	24.1%	0.4%	16,479,665
LAKE PLACID	45.0	35,180	21.4%	0.2%	
TRENTON	74.9	60,232	22.0%	0.4%	
COLUMBIA	74.9	62,854	23.0%	0.4%	
DEBARY	74.5	53,554	19.7%	0.3%	
SANTA FE	74.9	62,307	22.8%	0.4%	
TWIN RIVERS	74.9	65,426	23.9%	0.4%	
DUETTE	74.5	64,686	23.8%	0.4%	
SANDY CREEK	74.9	70,285	25.7%	0.4%	
CHARLIE CREEK	74.9	65,300	23.9%	0.4%	
Total:	718.3	605,698	23.1%	3.7%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	479,680	\$2.41	5,669	\$110.80	2,745	\$43.84
LAKE PLACID	258,823	\$2.31	2,903	\$110.83	1,422	\$43.27
TRENTON	445,216	\$2.30	5,604	\$110.81	2,405	\$43.46
COLUMBIA	454,332	\$2.38	5,609	\$110.79	2,551	\$43.80
DEBARY	390,058	\$2.38	4,130	\$110.82	2,240	\$43.42
SANTA FE	457,037	\$2.34	5,472	\$110.80	2,551	\$43.53
TWIN RIVERS	479,615	\$2.35	5,355	\$110.84	2,678	\$43.41
DUETTE	472,079	\$2.40	5,933	\$110.77	2,675	\$43.94
SANDY CREEK	512,794	\$2.39	6,086	\$110.79	2,943	\$43.62
CHARLIE CREEK	478,674	\$2.38	6,086	\$110.80	2,637	\$44.05
Total:	4,428,308	\$10,471,850	52,845	\$5,855,574	24,847	\$1,084,180

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	37,310	32	7	0
LAKE PLACID	19,941	17	4	0
TRENTON	34,498	31	6	0
COLUMBIA	35,351	31	7	0
DEBARY	30,133	24	5	0
SANTA FE	35,451	31	7	0
TWIN RIVERS	37,025	31	7	0
DUETTE	36,829	33	7	0
SANDY CREEK	39,915	34	7	0
CHARLIE CREEK	37,223	34	7	0
Total:	343,675	299	64	2

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$586,834	\$3,080,834	\$1,568,282	\$81,940	\$0	\$5,317,890
LAKE PLACID	\$494,561	\$1,683,864	\$857,419	\$43,415	\$0	\$3,079,259
TRENTON	\$600,566	\$2,744,767	\$1,402,840	\$87,750	\$0	\$4,835,923
COLUMBIA	\$396,107	\$3,117,806	\$1,485,683	\$88,225	\$0	\$5,087,821
DEBARY	\$262,565	\$2,507,433	\$1,229,175	\$71,430	\$0	\$4,070,603
SANTA FE	\$255,866	\$3,133,345	\$1,448,920	\$86,920	\$0	\$4,925,050
TWIN RIVERS	\$371,374	\$2,877,263	\$1,316,736	\$77,860	\$0	\$4,643,233
DUETTE	\$320,634	\$2,693,808	\$1,974,053	\$102,100	\$0	\$5,090,595
SANDY CREEK	\$1,074,576	\$2,339,953	\$1,264,322	\$80,415	\$0	\$4,759,266
CHARLIE CREEK	\$542,220	\$2,454,889	\$1,330,770	\$105,235	\$0	\$4,433,114
Total:	\$4,905,303	\$26,633,963	\$13,878,199	\$825,290	\$0	\$46,242,755

Notes: Sandy Creek - May lease payment Trenton - Material returns Debary - Material returns