



Dianne M. Triplett  
DEPUTY GENERAL COUNSEL

January 31, 2022

**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. 20220007-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 2021, in accordance with Paragraph 15a. of the 2017 Second Revised and Restated Settlement Agreement, which was approved in FPSC Order No. PSC-2017-0451-AS-EU, dated November 20, 2017.

Thank you for your assistance in this matter. Please feel free to call me at (727) 820-4692 should you have any questions concerning this filing.

Respectfully,

s/ Dianne M. Triplett

Dianne M. Triplett

DMT/mw  
Enclosure

**CERTIFICATE OF SERVICE**

*Docket No. 20220007-EI*

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail to the following this 31<sup>st</sup> day of January, 2022.

*/s/ Dianne M. Triplett*

Attorney

<p>Charles Murphy / Jacob Imig Office of General Counsel Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 <a href="mailto:cmurphy@psc.state.fl.us">cmurphy@psc.state.fl.us</a> <a href="mailto:jimig@psc.state.fl.us">jimig@psc.state.fl.us</a></p> <p>J. Beasley / J. Wahlen / M. Means Ausley McMullen P.O. Box 391 Tallahassee, FL 32302 <a href="mailto:jbeasley@ausley.com">jbeasley@ausley.com</a> <a href="mailto:jwahlen@ausley.com">jwahlen@ausley.com</a> <a href="mailto:mmeans@ausley.com">mmeans@ausley.com</a></p> <p>Steven R. Griffin Beggs Law Firm P.O. Box 12950 Pensacola, FL 32591 <a href="mailto:srg@beggsllane.com">srg@beggsllane.com</a></p> <p>Russell A. Badders Gulf Power Company One Energy Place, Bin 100 Pensacola, FL 32520-0100 <a href="mailto:russell.badders@nexteraenergy.com">russell.badders@nexteraenergy.com</a></p> <p>Jon C. Moyle, Jr. Moyle Law Firm, P.A. 118 North Gadsden Street Tallahassee, FL 32301 <a href="mailto:jmoyle@moylelaw.com">jmoyle@moylelaw.com</a> <a href="mailto:mqualls@moylelaw.com">mqualls@moylelaw.com</a></p> <p>Maria Moncada 700 Universe Boulevard (LAW/JB) Juno Beach, FL 33408-0420 <a href="mailto:maria.moncada@fpl.com">maria.moncada@fpl.com</a></p>	<p>Richard Gentry / P. Christensen / A. Pirrello / S. Morse / C. Rehwinkel Office of Public Counsel c/o The Florida Legislature 111 West Madison Street, Room 812 Tallahassee, FL 32399-1400 <a href="mailto:gentry.richard@leg.state.fl.us">gentry.richard@leg.state.fl.us</a> <a href="mailto:christensen.patty@leg.state.fl.us">christensen.patty@leg.state.fl.us</a> <a href="mailto:pirrello.anastacia@leg.state.fl.us">pirrello.anastacia@leg.state.fl.us</a> <a href="mailto:morse.stephanie@leg.state.fl.us">morse.stephanie@leg.state.fl.us</a> <a href="mailto:rehwinkel.charles@leg.state.fl.us">rehwinkel.charles@leg.state.fl.us</a></p> <p>Paula K. Brown Tampa Electric Company Regulatory Affairs P.O. Box 111 Tampa, FL 33601 <a href="mailto:regdept@tecoenergy.com">regdept@tecoenergy.com</a></p> <p>James W. Brew / Laura W. Baker / Peter J. Mattheis / Michael K. Lavanga Stone Law Firm 1025 Thomas Jefferson Street, N.W. Eighth Floor, West Tower Washington, DC 20007 <a href="mailto:jbrew@smxblaw.com">jbrew@smxblaw.com</a> <a href="mailto:lwb@smxblaw.com">lwb@smxblaw.com</a> <a href="mailto:mkl@smxblaw.com">mkl@smxblaw.com</a> <a href="mailto:pjm@smxblaw.com">pjm@smxblaw.com</a></p> <p>Kenneth Hoffman Florida Power &amp; Light Company 134 W. Jefferson Street Tallahassee, FL 32301-1713 <a href="mailto:ken.hoffman@fpl.com">ken.hoffman@fpl.com</a></p>
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Duke Energy Florida, LLC  
 Actual Data for Solar Generation Facilities  
 Solar Base Rate Adjustment (SoBRA) Reporting  
December, 2021

		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	
1	1	3,378.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2	2	3,158.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3	3	3,052.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4	4	3,025.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	5	3,081.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6	6	3,283.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7	7	3,668.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8	8	4,040.9	0.7	0.8	1.5	1.6	2.3	1.0	0.7	2.7
9	9	4,278.5	10.3	7.7	17.2	14.8	16.3	13.7	11.3	25.0
10	10	4,430.7	20.7	13.3	31.9	28.6	34.1	29.1	23.4	41.3
11	11	4,560.8	25.8	14.7	39.2	36.4	47.5	37.2	31.2	46.2
12	12	4,679.3	28.1	15.9	39.1	36.7	55.5	36.9	34.0	49.5
13	13	4,851.2	27.1	17.4	40.5	36.1	57.8	36.2	32.8	49.7
14	14	5,012.7	26.7	16.9	37.6	35.2	51.5	35.2	31.9	48.6
15	15	5,149.4	26.8	15.9	35.6	30.3	42.3	30.8	32.5	47.5
16	16	5,247.6	21.7	15.1	30.7	25.8	27.2	26.3	26.6	40.5
17	17	5,309.6	11.6	7.3	17.3	14.2	10.9	13.8	14.9	22.3
18	18	5,410.3	0.8	0.4	1.1	1.5	0.5	1.0	0.8	1.7
19	19	5,541.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	20	5,338.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	21	5,078.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	22	4,718.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	23	4,278.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	24	3,749.2	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, 2021

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	6,212	11.1%	0.2%	3,276,626
LAKE PLACID	45.0	3,883	11.6%	0.1%	
TRENTON	74.9	9,043	16.2%	0.3%	
COLUMBIA	74.9	8,097	14.5%	0.2%	
DEBARY	74.5	10,725	19.3%	0.3%	
SANTA FE	74.9	8,096	14.5%	0.2%	
TWIN RIVERS	74.9	7,448	13.4%	0.2%	
DUETTE	74.5	11,627	21.0%	0.4%	
<b>Total:</b>	<b>568.5</b>	<b>65,131</b>	<b>15.4%</b>	<b>2.0%</b>	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	48,987	\$4.03	0	\$98.93	-15	\$97.32
LAKE PLACID	30,621	\$4.03	0	\$98.93	-9	\$97.32
TRENTON	71,312	\$4.03	0	\$98.93	-22	\$97.32
COLUMBIA	63,852	\$4.03	0	\$98.93	-20	\$97.32
DEBARY	84,577	\$4.03	0	\$98.93	-26	\$97.32
SANTA FE	63,844	\$4.03	0	\$98.93	-20	\$97.32
TWIN RIVERS	58,734	\$4.03	0	\$98.93	-18	\$97.32
DUETTE	91,690	\$4.03	0	\$98.93	-28	\$97.32
<b>Total:</b>	<b>513,618</b>	<b>\$2,071,901</b>	<b>0</b>	<b>\$0</b>	<b>-158</b>	<b>(\$15,382)</b>

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	2,943	1	(0)	(0)
LAKE PLACID	1,840	0	(0)	(0)
TRENTON	4,285	1	(0)	(0)
COLUMBIA	3,836	1	(0)	(0)
DEBARY	5,081	1	(0)	(0)
SANTA FE	3,836	1	(0)	(0)
TWIN RIVERS	3,529	1	(0)	(0)
DUETTE	5,509	1	(0)	(0)
<b>Total:</b>	<b>30,859</b>	<b>7</b>	<b>(0)</b>	<b>(0)</b>

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$260,246	\$673,398	\$307,369	\$16,388	\$0	\$1,257,402
LAKE PLACID	\$97,213	\$363,904	\$164,644	\$8,683	\$0	\$634,443
TRENTON	\$63,135	\$600,329	\$271,824	\$17,550	\$0	\$952,838
COLUMBIA	\$34,645	\$673,969	\$293,048	\$17,645	\$0	\$1,019,307
DEBARY	\$41,675	\$547,272	\$243,592	\$14,286	\$0	\$846,825
SANTA FE	\$72,799	\$681,163	\$288,880	\$17,384	\$0	\$1,060,226
TWIN RIVERS	\$22,397	\$619,364	\$249,167	\$15,572	\$0	\$906,500
DUETTE	\$25,823	\$647,530	\$273,362	\$20,420	\$0	\$967,134
<b>Total:</b>	<b>\$617,933</b>	<b>\$4,806,928</b>	<b>\$2,091,886</b>	<b>\$127,928</b>	<b>\$0</b>	<b>\$7,644,675</b>

Notes:  
Santa Fe and Twin Rivers sites placed in service in March  
Lake Placid experienced impacts on generation into December from post battery construction and the completion of remaining punch list items. Duette placed in service in October.

Duke Energy Florida, LLC  
Actual Data for Solar Generation Facilities  
Solar Base Rate Adjustment (SoBRA) Reporting  
YEAR-TO-DATE THROUGH:  
**December, 2021**

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	147,707	22.5%	0.4%	41,820,907
LAKE PLACID	45.0	57,195	14.5%	0.1%	
TRENTON	74.9	161,690	24.6%	0.4%	
COLUMBIA	74.9	162,129	24.7%	0.4%	
DEBARY	74.5	134,995	20.7%	0.3%	
SANTA FE	74.9	137,592	25.3%	0.3%	
TWIN RIVERS	74.9	85,286	16.6%	0.2%	
DUETTE	74.5	25,638	21.1%	0.1%	
<b>Total:</b>	<b>568.5</b>	<b>912,232</b>	<b>21.9%</b>	<b>2.2%</b>	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
HAMILTON	1,161,449	\$4.11	8,493	\$91.63	9,215	\$57.84
LAKE PLACID	423,175	\$3.43	2,850	\$88.38	4,539	\$36.49
TRENTON	1,276,431	\$4.10	9,380	\$91.66	10,039	\$58.26
COLUMBIA	1,278,688	\$4.12	9,348	\$91.68	10,010	\$58.66
DEBARY	1,059,859	\$4.19	7,231	\$91.59	7,875	\$61.35
SANTA FE	1,113,224	\$4.06	8,307	\$92.70	8,881	\$60.58
TWIN RIVERS	733,600	\$4.66	5,764	\$94.43	3,282	\$103.91
DUETTE	196,134	\$4.87	109	\$109.69	410	\$170.59
<b>Total:</b>	<b>7,242,559</b>	<b>\$30,366,321</b>	<b>51,481</b>	<b>\$4,837,741</b>	<b>54,251</b>	<b>\$4,120,857</b>

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	93,139	62	10	1
LAKE PLACID	36,221	19	5	0
TRENTON	102,200	69	11	1
COLUMBIA	102,265	69	11	1
DEBARY	83,668	53	9	1
SANTA FE	89,447	66	10	1
TWIN RIVERS	53,860	46	4	0
DUETTE	12,789	4	0	0
<b>Total:</b>	<b>573,589</b>	<b>388</b>	<b>60</b>	<b>5</b>

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$1,357,183	\$8,182,517	\$3,663,722	\$196,656	\$0	\$13,400,079
LAKE PLACID	\$862,995	\$4,441,788	\$1,975,724	\$104,196	\$0	\$7,384,703
TRENTON	\$1,369,836	\$7,326,810	\$3,261,565	\$210,600	\$0	\$12,168,812
COLUMBIA	\$1,039,252	\$8,210,804	\$3,510,647	\$211,740	\$0	\$12,972,443
DEBARY	\$782,935	\$6,676,510	\$2,924,659	\$171,432	\$0	\$10,555,536
SANTA FE	\$432,060	\$6,155,739	\$2,517,240	\$173,840	\$0	\$9,278,879
TWIN RIVERS	\$565,378	\$5,402,810	\$2,124,869	\$155,720	\$0	\$8,248,777
DUETTE	\$25,823	\$1,919,136	\$541,314	\$61,260	\$0	\$2,547,533
<b>Total:</b>	<b>\$6,435,462</b>	<b>\$48,316,114</b>	<b>\$20,519,741</b>	<b>\$1,285,444</b>	<b>\$0</b>	<b>\$76,556,761</b>

Notes:  
Santa Fe and Twin Rivers sites placed in service in March - YTD Capacity Factors reflect in service date  
Lake Placid experienced impacts on generation into December from post battery construction and the completion of remaining punch list items. Duette placed in service in October - YTD Capacity Factors reflect in service date