



Stephanie A. Cuello  
SENIOR COUNSEL

April 29, 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 March 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 29th day of April, 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 <a href="mailto:aharper@psc.state.fl.us">aharper@psc.state.fl.us</a> <a href="mailto:jimig@psc.state.fl.us">jimig@psc.state.fl.us</a> <a href="mailto:sfarooqi@psc.state.fl.us">sfarooqi@psc.state.fl.us</a></p> <p>J. Wahlen / M. Means / V. Ponder Ausley McMullen Tampa Electric Company P.O. Box 391 Tallahassee, FL 32302 <a href="mailto:jwahlen@ausley.com">jwahlen@ausley.com</a> <a href="mailto:mmeans@ausley.com">mmeans@ausley.com</a> <a href="mailto:vponder@ausley.com">vponder@ausley.com</a></p> <p>Jon C. Moyle, Jr. Moyle Law Firm, P.A. FIPUG 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 Jose Moncada / Joel Baker Florida Power &amp; Light Company 700 Universe Boulevard (LAW/JB) Juno Beach, FL 33408-0420 <a href="mailto:maria.moncada@fpl.com">maria.moncada@fpl.com</a> <a href="mailto:joel.baker@fpl.com">joel.baker@fpl.com</a></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 <a href="mailto:christensen.patty@leg.state.fl.us">christensen.patty@leg.state.fl.us</a> <a href="mailto:rehwinkel.charles@leg.state.fl.us">rehwinkel.charles@leg.state.fl.us</a> <a href="mailto:wessling.mary@leg.state.fl.us">wessling.mary@leg.state.fl.us</a> <a href="mailto:ponce.octavio@leg.state.fl.us">ponce.octavio@leg.state.fl.us</a> <a href="mailto:watrous.austin@leg.state.fl.us">watrous.austin@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>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> <p>James W. Brew / Laura Wynn Baker / Sarah B. Newman Stone Mattheis Xenopoulos &amp; Brew, P.C. PCS Phosphate –White Springs 1025 Thomas Jefferson Street, NW 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:sbn@smxblaw.com">sbn@smxblaw.com</a></p> <p>Peter J. Mattheis / Michael K. Lavanga / Joseph R. Briscar Stone Mattheis Xenopoulos &amp; Brew, PC NUCOR 1025 Thomas Jefferson Street, NW Eighth Floor, West Tower Washington, DC 20007 <a href="mailto:pjm@smxblaw.com">pjm@smxblaw.com</a> <a href="mailto:mkl@smxblaw.com">mkl@smxblaw.com</a> <a href="mailto:jrb@smxblaw.com">jrb@smxblaw.com</a></p>
---	--

Duke Energy Florida, LLC  
 Actual Data for Solar Generation Facilities  
 Solar Base Rate Adjustment (SoBRA) Reporting  
March, 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	3,405.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	2	3,147.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	3	2,969.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	4	2,909.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	5	2,915.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	6	3,081.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	7	3,385.2	0.4	0.3	0.4	0.5	0.5	0.4	0.3	0.5	0.1
8	8	3,669.6	13.5	6.3	11.8	13.3	7.0	12.2	14.3	10.2	10.7
9	9	3,863.7	36.0	15.8	29.4	30.4	19.9	33.7	37.3	28.0	34.7
10	10	3,987.7	41.8	22.7	40.1	38.5	33.2	43.3	44.8	37.7	44.3
11	11	4,078.5	45.3	28.1	44.4	40.9	42.0	43.5	49.9	43.6	47.4
12	12	4,191.4	45.2	30.5	47.1	43.6	47.9	46.8	50.2	46.4	52.3
13	13	4,356.5	45.8	30.7	47.3	45.0	50.9	48.4	50.8	49.1	53.2
14	14	4,534.0	43.5	31.0	46.3	44.8	49.3	49.3	48.1	50.0	52.9
15	15	4,736.0	39.9	29.1	45.4	42.9	43.2	46.4	43.6	46.0	51.9
16	16	4,945.2	37.0	24.2	42.4	36.3	33.6	40.0	40.9	39.2	47.5
17	17	5,176.4	32.1	17.3	35.6	32.0	20.5	34.0	35.3	28.4	39.8
18	18	5,327.9	18.5	7.2	18.2	16.4	8.0	16.3	19.9	13.1	22.4
19	19	5,343.2	1.7	0.5	1.6	1.8	0.5	1.6	1.8	1.1	3.5
20	20	5,239.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	21	5,080.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	22	4,716.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	23	4,249.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	24	3,778.8	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:  
**March, 2024**

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	12,422	22.3%	0.4%	2,974,146
LAKE PLACID	45.0	7,552	22.6%	0.3%	
TRENTON	74.9	12,706	22.8%	0.4%	
COLUMBIA	74.9	11,983	21.5%	0.4%	
DEBARY	74.5	11,051	19.9%	0.4%	
SANTA FE	74.9	12,899	23.1%	0.4%	
TWIN RIVERS	74.9	13,551	24.3%	0.5%	
DUETTE	74.5	12,190	22.0%	0.4%	
SANDY CREEK	74.9	14,282	25.6%	0.5%	
CHARLIE CREEK	74.9	11,659	20.9%	0.4%	
<b>Total:</b>	<b>718.3</b>	<b>120,295.0</b>	<b>22.5%</b>	<b>4.0%</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	92,169	\$1.63	0	\$119.70	781	\$35.01
LAKE PLACID	56,035	\$1.63	0	\$119.70	475	\$35.01
TRENTON	94,277	\$1.63	0	\$119.70	798	\$35.01
COLUMBIA	88,912	\$1.63	0	\$119.70	753	\$35.01
DEBARY	81,997	\$1.63	0	\$119.70	694	\$35.01
SANTA FE	95,709	\$1.63	0	\$119.70	811	\$35.01
TWIN RIVERS	100,546	\$1.63	0	\$119.70	852	\$35.01
DUETTE	90,448	\$1.63	0	\$119.70	766	\$35.01
SANDY CREEK	105,970	\$1.63	0	\$119.70	897	\$35.01
CHARLIE CREEK	86,508	\$1.63	0	\$119.70	733	\$35.01
<b>Total:</b>	<b>892,571</b>	<b>\$1,453,185</b>	<b>0</b>	<b>\$0</b>	<b>7,559</b>	<b>\$264,660</b>

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	7,178	2	1	0
LAKE PLACID	4,364	1	1	0
TRENTON	7,342	2	1	0
COLUMBIA	6,924	2	1	0
DEBARY	6,385	2	1	0
SANTA FE	7,453	2	1	0
TWIN RIVERS	7,830	2	1	0
DUETTE	7,043	2	1	0
SANDY CREEK	8,252	2	1	0
CHARLIE CREEK	6,737	2	1	0
<b>Total:</b>	<b>69,508</b>	<b>21</b>	<b>11</b>	<b>1</b>

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$99,654	\$616,167	\$313,656	\$16,388	\$0	\$1,045,865
LAKE PLACID	\$30,250	\$336,957	\$171,529	\$8,683	\$0	\$547,419
TRENTON	\$474,194	\$548,972	\$280,602	\$17,550	\$0	\$1,321,317
COLUMBIA	\$68,896	\$623,580	\$297,137	\$17,645	\$0	\$1,007,258
DEBARY	\$50,235	\$501,487	\$245,835	\$14,286	\$0	\$811,843
SANTA FE	\$74,345	\$626,669	\$289,784	\$17,384	\$0	\$1,008,182
TWIN RIVERS	\$104,408	\$575,453	\$263,364	\$15,572	\$0	\$958,797
DUETTE	\$26,424	\$538,767	\$393,189	\$20,420	\$0	\$978,800
SANDY CREEK	\$136,020	\$467,946	\$252,819	\$16,083	\$0	\$872,868
CHARLIE CREEK	\$112,097	\$490,978	\$266,154	\$21,047	\$0	\$890,276
<b>Total:</b>	<b>\$1,176,523</b>	<b>\$5,326,975</b>	<b>\$2,774,069</b>	<b>\$165,058</b>	<b>\$0</b>	<b>\$9,442,624</b>

Notes:

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

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	32,859	20.1%	0.4%	8,887,834
LAKE PLACID	45.0	17,473	17.8%	0.2%	
TRENTON	74.9	27,294	16.7%	0.3%	
COLUMBIA	74.9	30,414	18.6%	0.3%	
DEBARY	74.5	28,432	17.5%	0.3%	
SANTA FE	74.9	30,361	18.6%	0.3%	
TWIN RIVERS	74.9	32,665	20.0%	0.4%	
DUETTE	74.5	31,338	19.3%	0.4%	
SANDY CREEK	74.9	34,958	21.4%	0.4%	
CHARLIE CREEK	74.9	30,025	18.4%	0.3%	
<b>Total:</b>	<b>718.3</b>	<b>295,819</b>	<b>18.9%</b>	<b>3.3%</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	227,406	\$2.41	0	\$122.34	1,711	\$40.96
LAKE PLACID	122,832	\$2.23	0	\$122.53	889	\$40.14
TRENTON	193,247	\$2.15	0	\$122.57	1,382	\$39.68
COLUMBIA	206,635	\$2.33	0	\$122.41	1,530	\$40.58
DEBARY	197,188	\$2.39	0	\$122.34	1,480	\$40.82
SANTA FE	212,857	\$2.26	0	\$122.49	1,553	\$40.27
TWIN RIVERS	227,923	\$2.32	0	\$122.39	1,693	\$40.46
DUETTE	218,294	\$2.34	0	\$122.49	1,600	\$40.73
SANDY CREEK	242,952	\$2.36	0	\$122.29	1,834	\$40.60
CHARLIE CREEK	209,259	\$2.33	0	\$122.51	1,529	\$40.73
<b>Total:</b>	<b>2,058,591</b>	<b>\$4,756,947</b>	<b>0</b>	<b>\$0</b>	<b>15,202</b>	<b>\$615,602</b>

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	17,267	4	3	0
LAKE PLACID	9,254	2	1	0
TRENTON	14,527	4	2	0
COLUMBIA	15,640	4	2	0
DEBARY	14,965	4	2	0
SANTA FE	16,063	4	2	0
TWIN RIVERS	17,260	4	3	0
DUETTE	16,489	4	2	0
SANDY CREEK	18,458	5	3	0
CHARLIE CREEK	15,795	4	2	0
<b>Total:</b>	<b>155,718</b>	<b>39</b>	<b>23</b>	<b>1</b>

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$330,064	\$1,855,192	\$940,969	\$49,164	\$0	\$3,175,389
LAKE PLACID	\$250,229	\$1,013,492	\$514,357	\$26,049	\$0	\$1,804,127
TRENTON	\$691,570	\$1,652,682	\$841,634	\$52,650	\$0	\$3,238,535
COLUMBIA	\$232,809	\$1,877,028	\$891,410	\$52,935	\$0	\$3,054,182
DEBARY	\$116,903	\$1,509,571	\$737,505	\$42,858	\$0	\$2,406,837
SANTA FE	\$203,301	\$1,886,161	\$869,352	\$52,152	\$0	\$3,010,966
TWIN RIVERS	\$260,842	\$1,732,050	\$790,093	\$46,716	\$0	\$2,829,701
DUETTE	\$161,836	\$1,624,586	\$1,179,585	\$61,260	\$0	\$3,027,268
SANDY CREEK	\$374,168	\$1,408,426	\$758,684	\$48,249	\$0	\$2,589,527
CHARLIE CREEK	\$347,513	\$1,477,583	\$798,462	\$63,141	\$0	\$2,686,699
<b>Total:</b>	<b>\$2,969,235</b>	<b>\$16,036,771</b>	<b>\$8,322,051</b>	<b>\$495,174</b>	<b>\$0</b>	<b>\$27,823,231</b>

Notes: