



Stephanie A. Cuello  
SENIOR COUNSEL

November 29, 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 October 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. 20230007-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 November, 2023.

/s/ Stephanie A. Cuello

Attorney

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Duke Energy Florida, LLC  
 Actual Data for Solar Generation Facilities  
 Solar Base Rate Adjustment (SoBRA) Reporting  
October, 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	3,788.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	2	3,518.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	3	3,344.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	4	3,253.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	5	3,250.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	6	3,394.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	7	3,661.5	1.9	1.1	1.9	3.1	1.4	2.2	1.3	2.0	3.3
8	8	3,870.5	22.9	7.7	23.0	27.4	11.3	22.1	21.3	21.6	18.2
9	9	4,027.9	42.7	13.6	40.9	44.8	24.7	39.4	40.6	36.5	39.0
10	10	4,241.4	48.2	16.9	44.9	51.6	36.2	46.3	45.7	43.1	46.3
11	11	4,494.1	50.8	19.1	48.1	52.6	43.2	46.4	47.3	44.4	48.3
12	12	4,792.9	48.4	19.8	48.7	52.2	44.9	45.9	47.3	46.0	44.0
13	13	5,119.2	48.8	20.1	47.2	51.7	43.1	45.2	45.6	46.4	48.4
14	14	5,422.2	47.0	20.1	50.2	48.4	39.1	45.5	44.6	46.0	48.6
15	15	5,684.6	44.6	16.9	47.0	44.8	34.4	42.6	40.4	38.5	42.8
16	16	5,952.9	39.3	13.6	40.4	41.6	28.5	39.7	35.3	32.3	39.8
17	17	6,152.0	33.7	10.0	34.1	35.4	16.6	34.1	30.3	24.7	33.4
18	18	6,180.3	15.0	3.2	17.0	18.5	6.2	15.4	14.8	12.2	19.8
19	19	5,991.9	1.2	0.3	1.3	1.2	0.4	0.9	1.1	1.1	2.8
20	20	5,835.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	21	5,525.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	22	5,107.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	23	4,646.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	24	4,124.8	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:  
**October, 2023**

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	14,159	25.4%	0.4%	3,314,702
LAKE PLACID	45.0	5,466	16.3%	0.2%	
TRENTON	74.9	12,448	22.3%	0.4%	
COLUMBIA	74.9	12,544	22.5%	0.4%	
DEBARY	74.5	10,579	19.1%	0.3%	
SANTA FE	74.9	12,333	22.1%	0.4%	
TWIN RIVERS	74.9	13,026	23.4%	0.4%	
DUETTE	74.5	12,381	22.3%	0.4%	
SANDY CREEK	74.9	13,388	24.0%	0.4%	
CHARLIE CREEK	74.9	13,252	23.8%	0.4%	
<b>Total:</b>	<b>718.3</b>	<b>119,576.0</b>	<b>22.4%</b>	<b>3.6%</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	104,000	\$3.29	85	\$136.81	713	\$52.81
LAKE PLACID	40,149	\$3.29	33	\$136.81	275	\$52.81
TRENTON	91,433	\$3.29	74	\$136.81	627	\$52.81
COLUMBIA	92,138	\$3.29	75	\$136.81	632	\$52.81
DEBARY	77,705	\$3.29	63	\$136.81	533	\$52.81
SANTA FE	90,588	\$3.29	74	\$136.81	621	\$52.81
TWIN RIVERS	95,678	\$3.29	78	\$136.81	656	\$52.81
DUETTE	90,941	\$3.29	74	\$136.81	624	\$52.81
SANDY CREEK	90,992	\$3.29	74	\$136.81	624	\$52.81
CHARLIE CREEK	97,338	\$3.29	79	\$136.81	667	\$52.81
<b>Total:</b>	<b>870,962</b>	<b>\$2,863,106</b>	<b>709</b>	<b>\$97,006</b>	<b>5,973</b>	<b>\$315,430</b>

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	7,801	2	1	0
LAKE PLACID	3,011	1	0	0
TRENTON	6,858	2	1	0
COLUMBIA	6,911	2	1	0
DEBARY	5,828	2	1	0
SANTA FE	6,795	2	1	0
TWIN RIVERS	7,176	2	1	0
DUETTE	6,821	2	1	0
SANDY CREEK	6,825	2	1	0
CHARLIE CREEK	7,301	2	1	0
<b>Total:</b>	<b>65,327</b>	<b>19</b>	<b>9</b>	<b>1</b>

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$62,565	\$627,057	\$313,210	\$16,388	\$0	\$1,019,220
LAKE PLACID	\$105,784	\$341,035	\$168,705	\$8,683	\$0	\$624,207
TRENTON	\$264,702	\$558,616	\$277,799	\$17,550	\$0	\$1,118,667
COLUMBIA	\$80,301	\$633,712	\$296,998	\$17,645	\$0	\$1,028,656
DEBARY	\$99,762	\$510,005	\$245,835	\$14,286	\$0	\$869,888
SANTA FE	\$45,576	\$636,926	\$289,784	\$17,384	\$0	\$989,670
TWIN RIVERS	\$151,630	\$584,819	\$263,365	\$15,572	\$0	\$1,015,386
DUETTE	\$63,959	\$614,724	\$273,380	\$20,420	\$0	\$972,483
SANDY CREEK	\$125,852	\$475,652	\$253,046	\$16,083	\$0	\$870,633
CHARLIE CREEK	\$84,879	\$501,920	\$268,937	\$21,047	\$0	\$876,783
<b>Total:</b>	<b>\$1,085,010</b>	<b>\$5,484,466</b>	<b>\$2,651,059</b>	<b>\$165,058</b>	<b>\$0</b>	<b>\$9,385,594</b>

Notes:

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

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	143,519	26.3%	0.4%	36,824,384
LAKE PLACID	45.0	55,814	17.0%	0.2%	
TRENTON	74.9	130,178	23.8%	0.4%	
COLUMBIA	74.9	128,917	23.6%	0.4%	
DEBARY	74.5	106,864	19.7%	0.3%	
SANTA FE	74.9	122,876	22.5%	0.3%	
TWIN RIVERS	74.9	132,092	24.2%	0.4%	
DUETTE	74.5	125,276	23.0%	0.3%	
SANDY CREEK	74.9	139,940	25.6%	0.4%	
CHARLIE CREEK	74.9	149,687	27.4%	0.4%	
<b>Total:</b>	<b>718.3</b>	<b>1,235,163</b>	<b>23.6%</b>	<b>3.4%</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	1,127,886	\$2.97	7,420	\$127.30	7,121	\$51.97
LAKE PLACID	441,915	\$2.91	2,591	\$126.81	2,681	\$52.12
TRENTON	1,022,584	\$2.98	6,767	\$127.98	6,439	\$52.26
COLUMBIA	1,012,018	\$2.99	6,740	\$128.30	6,418	\$52.28
DEBARY	839,846	\$2.96	5,145	\$128.19	4,978	\$52.36
SANTA FE	974,000	\$2.91	6,153	\$127.49	6,224	\$52.26
TWIN RIVERS	1,042,331	\$2.94	6,762	\$127.54	6,577	\$52.19
DUETTE	986,974	\$2.93	5,688	\$127.05	5,930	\$52.19
SANDY CREEK	1,096,516	\$2.96	7,550	\$127.62	7,028	\$52.03
CHARLIE CREEK	1,181,817	\$2.92	7,213	\$126.84	7,168	\$52.08
<b>Total:</b>	<b>9,725,888</b>	<b>\$28,661,386</b>	<b>62,029</b>	<b>\$7,909,346</b>	<b>60,564</b>	<b>\$3,159,935</b>

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	86,355	49	15	1
LAKE PLACID	33,466	18	5	0
TRENTON	78,275	45	13	1
COLUMBIA	77,578	44	13	1
DEBARY	63,468	35	10	0
SANTA FE	74,606	42	13	1
TWIN RIVERS	79,752	45	13	1
DUETTE	74,582	40	12	1
SANDY CREEK	84,322	49	14	1
CHARLIE CREEK	89,627	49	15	1
<b>Total:</b>	<b>742,030</b>	<b>417</b>	<b>123</b>	<b>6</b>

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$995,153	\$6,368,025	\$3,132,095	\$147,492	\$0	\$10,642,765
LAKE PLACID	\$1,234,344	\$3,462,632	\$1,687,055	\$86,830	\$0	\$6,470,861
TRENTON	\$1,155,838	\$5,670,490	\$2,776,759	\$193,050	\$0	\$9,796,137
COLUMBIA	\$744,756	\$6,396,466	\$2,954,553	\$176,450	\$0	\$10,272,225
DEBARY	\$548,508	\$5,176,725	\$2,458,350	\$142,860	\$0	\$8,326,443
SANTA FE	\$453,516	\$6,453,894	\$2,894,212	\$173,840	\$0	\$9,975,462
TWIN RIVERS	\$1,452,586	\$5,932,018	\$2,633,645	\$155,720	\$0	\$10,173,969
DUETTE	\$571,382	\$6,234,992	\$2,733,537	\$204,200	\$0	\$9,744,111
SANDY CREEK	\$1,285,059	\$4,820,179	\$2,536,037	\$160,830	\$0	\$8,802,105
CHARLIE CREEK	\$1,154,807	\$5,077,540	\$2,674,430	\$210,470	\$0	\$9,117,247
<b>Total:</b>	<b>\$9,595,949</b>	<b>\$55,592,961</b>	<b>\$26,480,673</b>	<b>\$1,651,742</b>	<b>\$0</b>	<b>\$93,321,325</b>

Notes: