



Stephanie A. Cuello  
SENIOR COUNSEL

May 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 April 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 May, 2024.

/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  
April, 2024

Hour of Day	System Firm Demand (MW)	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)	
		Hamilton	Lake Placid	Trenton	Columbia	Debary	Santa Fe	Twin Rivers	Duette	Sandy Creek	Charlie Creek	
1	1	3,622.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	2	3,271.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	3	3,069.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	4	2,965.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	5	2,966.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	6	3,129.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	7	3,474.7	5.0	2.2	5.2	6.0	2.3	4.9	4.7	4.1	3.0	6.3
8	8	3,692.8	30.6	13.8	30.2	30.0	13.5	26.0	29.6	28.1	27.3	35.3
9	9	3,903.7	47.7	24.1	47.5	45.0	29.7	41.7	49.6	45.4	48.3	50.7
10	10	4,081.3	53.6	29.4	52.3	48.1	43.4	49.5	60.1	53.2	50.5	58.7
11	11	4,247.4	52.4	32.9	55.8	52.4	50.0	55.2	58.6	54.6	54.5	63.2
12	12	4,486.0	52.0	36.0	57.5	57.1	54.1	58.4	56.5	56.1	57.6	64.0
13	13	4,728.3	54.0	36.0	56.3	58.1	55.2	59.3	57.6	55.8	62.1	63.0
14	14	4,984.0	53.0	34.6	56.2	55.2	53.7	55.5	55.6	52.5	60.8	58.8
15	15	5,259.9	52.4	32.6	52.8	51.5	49.4	51.6	54.7	51.0	55.3	54.7
16	16	5,531.9	52.8	27.8	50.7	48.9	39.4	50.7	54.0	47.2	57.0	47.7
17	17	5,836.3	46.3	21.1	43.6	39.2	26.3	37.8	45.6	42.9	49.5	41.3
18	18	6,039.8	31.5	11.6	29.3	27.8	11.0	26.3	31.4	25.4	36.8	24.5
19	19	6,017.8	6.3	1.5	5.4	5.0	1.2	5.2	6.0	4.1	10.5	3.6
20	20	5,767.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	21	5,614.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	22	5,253.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	23	4,754.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	24	4,145.4	0.0	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:  
**April, 2024**

	Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
1	HAMILTON	74.9	16,133	29.9%	0.5%	3,270,969
1	LAKE PLACID	45.0	9,111	28.1%	0.3%	
1	TRENTON	74.9	16,284	30.2%	0.5%	
1	COLUMBIA	74.9	15,730	29.2%	0.5%	
1	DEBARY	74.5	12,881	24.0%	0.4%	
1	SANTA FE	74.9	15,660	29.0%	0.5%	
1	TWIN RIVERS	74.9	16,914	31.4%	0.5%	
1	DUETTE	74.5	15,607	29.1%	0.5%	
1	SANDY CREEK	74.9	17,197	31.9%	0.5%	
1	CHARLIE CREEK	74.9	17,152	31.8%	0.5%	
2	<b>Total:</b>	<b>718.3</b>	<b>152,669.0</b>	<b>29.5%</b>	<b>4.7%</b>	

	Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF)	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl)	Coal Displaced (Tons)	Cost of Coal (\$/Ton)
3	HAMILTON	135,659	\$1.74	317	\$117.93	139	\$39.36
3	LAKE PLACID	76,613	\$1.74	179	\$117.93	78	\$39.36
3	TRENTON	136,929	\$1.74	320	\$117.93	140	\$39.36
3	COLUMBIA	132,270	\$1.74	309	\$117.93	135	\$39.36
3	DEBARY	108,314	\$1.74	253	\$117.93	111	\$39.36
3	SANTA FE	131,682	\$1.74	308	\$117.93	134	\$39.36
3	TWIN RIVERS	142,226	\$1.74	332	\$117.93	145	\$39.36
3	DUETTE	131,236	\$1.74	307	\$117.93	134	\$39.36
3	SANDY CREEK	144,606	\$1.74	338	\$117.93	148	\$39.36
3	CHARLIE CREEK	144,228	\$1.74	337	\$117.93	147	\$39.36
4	<b>Total:</b>	<b>1,283,762</b>	<b>\$2,236,519</b>	<b>3,001</b>	<b>\$353,930</b>	<b>1,311</b>	<b>\$51,607</b>

	Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
5	HAMILTON	8,663	3	0	0
5	LAKE PLACID	4,892	2	0	0
5	TRENTON	8,744	3	0	0
5	COLUMBIA	8,447	3	0	0
5	DEBARY	6,917	2	0	0
5	SANTA FE	8,409	3	0	0
5	TWIN RIVERS	9,082	3	0	0
5	DUETTE	8,381	3	0	0
5	SANDY CREEK	9,234	3	0	0
5	CHARLIE CREEK	9,210	3	0	0
6	<b>Total:</b>	<b>81,980</b>	<b>28</b>	<b>4</b>	<b>0</b>

	Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
7	HAMILTON	\$137,362	\$613,936	\$313,656	\$16,388	\$0	\$1,081,343
7	LAKE PLACID	\$143,161	\$335,776	\$171,529	\$8,683	\$0	\$659,149
7	TRENTON	\$109,099	\$547,019	\$280,602	\$17,550	\$0	\$954,270
7	COLUMBIA	\$79,324	\$621,453	\$297,137	\$17,645	\$0	\$1,015,558
7	DEBARY	\$168,165	\$499,783	\$245,835	\$14,286	\$0	\$928,069
7	SANTA FE	\$8,317	\$624,617	\$289,784	\$17,384	\$0	\$940,102
7	TWIN RIVERS	\$75,438	\$573,538	\$263,321	\$15,572	\$0	\$927,869
7	DUETTE	\$77,859	\$536,005	\$393,189	\$20,420	\$0	\$1,027,473
7	SANDY CREEK	\$115,276	\$466,491	\$252,819	\$16,083	\$0	\$850,669
7	CHARLIE CREEK	\$98,217	\$489,428	\$266,154	\$21,047	\$0	\$874,846
8	<b>Total:</b>	<b>\$1,012,218</b>	<b>\$5,308,047</b>	<b>\$2,774,025</b>	<b>\$165,058</b>	<b>\$0</b>	<b>\$9,259,349</b>

Notes:

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

Facility	Net Capability (MW)	Net Generation (MWh)	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh)
HAMILTON	74.9	48,992	22.5%	0.3%	15,569,957
LAKE PLACID	45.0	26,584	20.3%	0.2%	
TRENTON	74.9	43,578	20.0%	0.3%	
COLUMBIA	74.9	46,144	21.2%	0.3%	
DEBARY	74.5	41,313	19.1%	0.3%	
SANTA FE	74.9	46,021	21.2%	0.3%	
TWIN RIVERS	74.9	49,579	22.8%	0.3%	
DUETTE	74.5	46,945	21.7%	0.3%	
SANDY CREEK	74.9	52,155	24.0%	0.3%	
CHARLIE CREEK	74.9	47,177	21.7%	0.3%	
<b>Total:</b>	<b>718.3</b>	<b>448,488</b>	<b>21.5%</b>	<b>2.9%</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	363,065	\$2.16	289	\$117.50	1,850	\$40.84
LAKE PLACID	199,444	\$2.04	164	\$117.51	967	\$40.08
TRENTON	330,176	\$1.98	297	\$117.57	1,522	\$39.65
COLUMBIA	338,905	\$2.10	284	\$117.53	1,666	\$40.48
DEBARY	305,501	\$2.16	229	\$117.47	1,591	\$40.72
SANTA FE	344,539	\$2.06	282	\$117.51	1,688	\$40.19
TWIN RIVERS	370,149	\$2.10	305	\$117.53	1,838	\$40.37
DUETTE	349,530	\$2.11	280	\$117.49	1,734	\$40.63
SANDY CREEK	387,558	\$2.13	309	\$117.52	1,981	\$40.51
CHARLIE CREEK	353,486	\$2.09	311	\$117.55	1,676	\$40.61
<b>Total:</b>	<b>3,342,353</b>	<b>\$6,996,324</b>	<b>2,750</b>	<b>\$323,181</b>	<b>16,513</b>	<b>\$667,229</b>

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	25,930	7	3	0
LAKE PLACID	14,146	4	2	0
TRENTON	23,271	7	2	0
COLUMBIA	24,086	7	3	0
DEBARY	21,882	6	3	0
SANTA FE	24,472	7	3	0
TWIN RIVERS	26,343	8	3	0
DUETTE	24,869	7	3	0
SANDY CREEK	27,693	8	3	0
CHARLIE CREEK	25,006	7	3	0
<b>Total:</b>	<b>237,698</b>	<b>68</b>	<b>27</b>	<b>2</b>

Facility	O&M (\$)	Carrying Costs (\$)	Capital (\$)	Other (\$)	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$467,332	\$2,469,129	\$1,254,625	\$65,552	\$0	\$4,256,638
LAKE PLACID	\$393,327	\$1,349,268	\$685,886	\$34,732	\$0	\$2,463,214
TRENTON	\$800,575	\$2,199,701	\$1,122,235	\$70,200	\$0	\$4,192,711
COLUMBIA	\$312,039	\$2,498,481	\$1,188,547	\$70,580	\$0	\$4,069,646
DEBARY	\$284,974	\$2,009,354	\$983,340	\$57,144	\$0	\$3,334,812
SANTA FE	\$211,524	\$2,510,779	\$1,159,136	\$69,536	\$0	\$3,950,975
TWIN RIVERS	\$336,187	\$2,305,588	\$1,053,415	\$62,288	\$0	\$3,757,478
DUETTE	\$239,600	\$2,160,592	\$1,572,774	\$81,680	\$0	\$4,054,646
SANDY CREEK	\$489,350	\$1,874,917	\$1,011,503	\$64,332	\$0	\$3,440,102
CHARLIE CREEK	\$445,636	\$1,967,011	\$1,064,616	\$84,188	\$0	\$3,561,451
<b>Total:</b>	<b>\$3,980,544</b>	<b>\$21,344,818</b>	<b>\$11,096,077</b>	<b>\$660,232</b>	<b>\$0</b>	<b>\$37,081,671</b>

Notes: