



Dianne M. Triplett
DEPUTY GENERAL COUNSEL

January 25, 2021

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. 20210007-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 2020, 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. Please feel free to call me at (727) 820-4692 should you have any questions concerning this filing.

Sincerely,

/s/ Dianne M. Triplett

Dianne M. Triplett

DMT/cmck
Enclosures

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail to the following this 25th day of January, 2021.

/s/ Dianne M. Triplett
Attorney

<p>Charles Murphy Office of General Counsel Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 cmurphy@psc.state.fl.us</p> <p>J. Beasley / J. Wahlen / M. Means Ausley McMullen P.O. Box 391 Tallahassee, FL 32302 jbeasley@ausley.com jwahlen@ausley.com mmeans@ausley.com</p> <p>Steven R. Griffin Beggs Law Firm P.O. Box 12950 Pensacola, FL 32591 srg@beggslane.com</p> <p>Russell A. Badders Gulf Power Company One Energy Place, Bin 100 Pensacola, FL 32520-0100 russell.badders@nexteraenergy.com</p> <p>Jon C. Moyle, Jr. Moyle Law Firm, P.A. 118 North Gadsden Street Tallahassee, FL 32301 jmoyle@moylelaw.com mqualls@moylelaw.com</p>	<p>Charles Rehwinkel Office of Public Counsel c/o The Florida Legislature 111 West Madison Street, Room 812 Tallahassee, FL 32399-1400 rehwinkel.charles@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>James W. Brew / Laura W. Baker Stone Law Firm 1025 Thomas Jefferson Street, N.W. Eighth Floor, West Tower Washington, DC 20007 jbrew@smxblaw.com lwb@smxblaw.com</p> <p>Kenneth Hoffman Florida Power & Light Company 134 W. Jefferson Street Tallahassee, FL 32301-1713 ken.hoffman@fpl.com</p> <p>Maria Moncada 700 Universe Boulevard (LAW/JB) Juno Beach, FL 33408-0420 maria.moncada@fpl.com</p>
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Duke Energy Florida, LLC
 Actual Data for Solar Generation Facilities
 Solar Base Rate Adjustment (SoBRA) Reporting
December, 2020

		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
1	1	3,593.0	0.0	0.0	0.0	0.0
2	2	3,467.5	0.0	0.0	0.0	0.0
3	3	3,431.0	0.0	0.0	0.0	0.0
4	4	3,466.5	0.0	0.0	0.0	0.0
5	5	3,599.0	0.0	0.0	0.0	0.0
6	6	3,888.6	0.0	0.0	0.0	0.0
7	7	4,331.3	0.0	0.0	0.0	0.0
8	8	4,733.6	1.9	1.8	2.0	2.3
9	9	4,856.3	23.8	15.7	24.6	27.2
10	10	4,738.1	43.1	24.0	40.3	42.0
11	11	4,557.4	48.0	26.1	44.3	45.2
12	12	4,386.6	48.4	27.3	45.6	47.1
13	13	4,273.6	48.0	26.0	47.6	47.5
14	14	4,183.7	47.0	26.6	45.3	44.9
15	15	4,144.1	48.8	24.7	44.9	41.8
16	16	4,153.2	46.3	21.7	41.8	40.8
17	17	4,241.8	24.5	10.5	24.8	25.3
18	18	4,533.6	1.3	0.6	1.6	2.0
19	19	4,857.2	0.0	0.0	0.0	0.0
20	20	4,800.5	0.0	0.0	0.0	0.0
21	21	4,670.5	0.0	0.0	0.0	0.0
22	22	4,458.0	0.0	0.0	0.0	0.0
23	23	4,151.7	0.0	0.0	0.0	0.0
24	24	3,822.1	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, 2020

Facility	Net Capability (MW)	Net Generation (MWh) ⁽¹⁾	Capacity Factor (%)	Percent of Total Generation (%)	Total System Net Generation (MWh) ⁽²⁾
HAMILTON	74.9	11,819	21.2%	0.4%	3,037,435
LAKE PLACID	45.0	6,360	19.0%	0.2%	
TRENTON	74.9	11,246	20.2%	0.4%	
COLUMBIA	74.9	11,367	20.4%	0.4%	
DEBARY	74.5	10,194	18.4%	0.3%	
Total:	344.2	50,986.0	19.9%	1.7%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF) ⁽³⁾	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl) ⁽³⁾	Coal Displaced (Tons)	Cost of Coal (\$/Ton) ⁽³⁾
HAMILTON	82,077	\$2.75	226	\$67.81	577	\$35.41
LAKE PLACID	44,167	\$2.75	122	\$67.81	310	\$35.41
TRENTON	78,098	\$2.75	215	\$67.81	549	\$35.41
COLUMBIA	78,938	\$2.75	218	\$67.81	555	\$35.41
DEBARY	70,792	\$2.75	195	\$67.81	497	\$35.41
Total:	354,073	\$973,012	976	\$66,212	2,488	\$88,076

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	6,258	1	1	0
LAKE PLACID	3,367	0	0	0
TRENTON	5,955	1	1	0
COLUMBIA	6,019	1	1	0
DEBARY	5,398	0	1	0
Total:	26,996	2	3	0

Facility	O&M (\$)	Carrying Costs (\$) ⁽⁴⁾	Capital (\$) ⁽⁵⁾	Other (\$) ⁽⁶⁾	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$110,591	\$694,384	\$304,534	\$16,388	\$0	\$1,125,896
LAKE PLACID	\$33,694	\$377,527	\$164,644	\$8,683	\$0	\$584,548
TRENTON	\$41,562	\$622,179	\$271,470	\$17,550	\$0	\$952,761
COLUMBIA	\$31,062	\$697,034	\$292,332	\$17,645	\$0	\$1,038,073
DEBARY	\$46,969	\$566,469	\$244,009	\$14,286	\$0	\$871,733
Total:	\$263,878	\$2,957,594	\$1,276,988	\$74,552	\$0	\$4,573,012

- (1) Net Generation data represents a calendar month.
(2) Total System Net Generation from Monthly Operating Report.
(3) Fuel Cost per unit data from Schedules A3 & A4.
(4) Carrying Cost data represents return on average net investment.
(5) Capital Cost data represents depreciation expense on net investment. 1 Month lag for Debary
(6) Other Cost data represents dismantlement costs and amortization on ITC (no ITC amortization for Hamilton, Lake Placid, Trenton, Columbia, Debary yet).

Duke Energy Florida, LLC
Actual Data for Solar Generation Facilities
Solar Base Rate Adjustment (SoBRA) Reporting
YEAR-TO-DATE THROUGH:
December, 2020

Facility	Net Capability (MW)	Net Generation (MWh) ⁽¹⁾	Capacity Factor (%) ⁽⁷⁾	Percent of Total Generation (%)	Total System Net Generation (MWh) ⁽²⁾
HAMILTON	74.9	175,804	26.7%	0.4%	41,053,120
LAKE PLACID	45.0	96,921	24.5%	0.2%	
TRENTON	74.9	169,797	25.8%	0.4%	
COLUMBIA	74.9	147,024	28.8%	0.4%	
DEBARY	74.5	83,504	20.1%	0.2%	
Total:	344.2	673,050	25.5%	1.6%	

Facility	Natural Gas Displaced (MCF)	Cost of NG (\$/MCF) ⁽³⁾	Oil Displaced (Bbls)	Cost of Oil (\$/Bbl) ⁽³⁾	Coal Displaced (Tons)	Cost of Coal (\$/Ton) ⁽³⁾
HAMILTON	1,482,238	\$2.12	4,831	\$56.39	6,801	\$35.40
LAKE PLACID	815,814	\$2.12	2,713	\$56.30	3,796	\$35.36
TRENTON	1,430,210	\$2.12	4,707	\$56.35	6,595	\$35.37
COLUMBIA	1,230,928	\$2.14	4,377	\$55.61	6,949	\$35.36
DEBARY	685,071	\$2.24	2,576	\$56.87	4,919	\$35.06
Total:	5,644,261	\$12,127,725	19,203	\$1,081,206	29,060	\$1,026,092

Facility	CO2 Reductions (Tons)	NOx Reduction (Tons)	SO2 Reduction (Tons)	Hg Reduction (lbs)
HAMILTON	106,019	53	8	1
LAKE PLACID	58,485	29	5	0
TRENTON	102,387	51	8	1
COLUMBIA	90,855	44	8	1
DEBARY	52,764	25	5	0
Total:	410,511	203	34	3

Facility	O&M (\$)	Carrying Costs (\$) ⁽⁴⁾	Capital (\$) ⁽⁵⁾	Other (\$) ⁽⁶⁾	Fuel Costs (\$)	Total Cost of Generation (\$)
HAMILTON	\$1,316,547	\$8,474,884	\$3,654,151	\$196,656	\$0	\$13,642,238
LAKE PLACID	\$478,980	\$4,201,190	\$1,812,851	\$104,196	\$0	\$6,597,217
TRENTON	\$752,899	\$7,424,124	\$3,195,543	\$210,600	\$0	\$11,583,166
COLUMBIA	\$739,440	\$6,927,931	\$2,605,703	\$176,450	\$0	\$10,449,524
DEBARY	\$238,774	\$4,260,343	\$1,698,815	\$114,288	\$0	\$6,312,220
Total:	\$3,526,640	\$31,288,472	\$12,967,062	\$802,190	\$0	\$48,584,365

(1) Net Generation data represents a year-to-date value.

(2) Total System Net Generation from Monthly Operating Reports.

(3) Fuel Cost per unit data from Schedules A3 & A4.

(4) Carrying Cost data represents return on average net investment.

(5) Capital Cost data represents depreciation expense on net investment.

(6) Other Cost data represents dismantlement costs and amortization on ITC (no ITC amortization for Hamilton, Lake Placid, Trenton, Columbia, Debary yet).

(7) YTD Capacity Factors adjusted for Columbia and Debary mid 2020 start up dates.