



Dianne M. Triplett
DEPUTY GENERAL COUNSEL

May 27, 2020

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. 20200007-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 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 27th day of May, 2020.

/s/ Dianne M. Triplett

Attorney

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| <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>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>Maria Moncada / David Lee 700 Universe Boulevard (LAW/JB) Juno Beach, FL 33408-0420 maria.moncada@fpl.com david.lee@fpl.com</p> | <p>J.R. Kelly / P. Christensen / C. Rehwinkel / T. David / S. Morse / M. Fall-Fry 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 kelly.jr@leg.state.fl.us christensen.patty@leg.state.fl.us david.tad@leg.state.fl.us fall-fry.mireille@leg.state.fl.us morse.stephanie@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> |
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Duke Energy Florida, LLC
 Actual Data for Solar Generation Facilities
 Solar Base Rate Adjustment (SoBRA) Reporting
April, 2020

| | | 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 |
| 1 | 1 | 3,548.3 | 0.0 | 0.0 | 0.0 |
| 2 | 2 | 3,270.8 | 0.0 | 0.0 | 0.0 |
| 3 | 3 | 3,093.7 | 0.0 | 0.0 | 0.0 |
| 4 | 4 | 2,991.5 | 0.0 | 0.0 | 0.0 |
| 5 | 5 | 2,962.4 | 0.0 | 0.0 | 0.0 |
| 6 | 6 | 3,029.4 | 0.0 | 0.0 | 0.0 |
| 7 | 7 | 3,174.8 | 5.1 | 2.7 | 4.3 |
| 8 | 8 | 3,363.1 | 28.0 | 15.8 | 29.3 |
| 9 | 9 | 3,648.8 | 42.1 | 27.2 | 43.7 |
| 10 | 10 | 3,961.9 | 52.9 | 29.6 | 51.1 |
| 11 | 11 | 4,274.5 | 58.0 | 31.7 | 53.0 |
| 12 | 12 | 4,619.7 | 59.9 | 31.3 | 52.8 |
| 13 | 13 | 4,989.9 | 59.2 | 31.2 | 55.3 |
| 14 | 14 | 5,333.1 | 61.1 | 30.8 | 56.4 |
| 15 | 15 | 5,619.6 | 57.4 | 31.0 | 56.4 |
| 16 | 16 | 5,865.5 | 55.0 | 30.6 | 55.3 |
| 17 | 17 | 6,062.7 | 46.0 | 25.6 | 41.2 |
| 18 | 18 | 6,151.8 | 32.0 | 16.4 | 26.5 |
| 19 | 19 | 5,978.5 | 6.2 | 2.0 | 5.0 |
| 20 | 20 | 5,577.2 | 0.0 | 0.0 | 0.0 |
| 21 | 21 | 5,357.9 | 0.0 | 0.0 | 0.0 |
| 22 | 22 | 4,897.8 | 0.0 | 0.0 | 0.0 |
| 23 | 23 | 4,410.0 | 0.0 | 0.0 | 0.0 |
| 24 | 24 | 3,873.7 | 0.0 | 0.0 | 0.0 |

Duke Energy Florida, LLC
Actual Data for Solar Generation Facilities
Solar Base Rate Adjustment (SoBRA) Reporting

PERIOD:
April, 2020

| Facility | Net Capability (MW) | Net Generation (MWh) ⁽¹⁾ | Capacity Factor (%) | Percent of Total Generation (%) | Total System Net Generation (MWh) ⁽²⁾ |
|---------------|---------------------|-------------------------------------|---------------------|---------------------------------|--|
| HAMILTON | 74.9 | 16,885 | 31.3% | 0.6% | 3,053,871 |
| LAKE PLACID | 45.0 | 9,173 | 28.3% | 0.3% | |
| TRENTON | 74.9 | 15,912 | 29.5% | 0.5% | |
| COLUMBIA | 74.9 | 16,775 | 31.1% | 0.5% | |
| Total: | 269.7 | 58,745.0 | 30.3% | 1.9% | |

| 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 | 140,471 | \$1.80 | 405 | \$44.23 | 157 | \$40.15 |
| LAKE PLACID | 76,313 | \$1.80 | 220 | \$44.23 | 85 | \$40.15 |
| TRENTON | 132,377 | \$1.80 | 382 | \$44.23 | 148 | \$40.15 |
| COLUMBIA | 139,556 | \$1.80 | 403 | \$44.23 | 156 | \$40.15 |
| Total: | 488,717 | \$881,832 | 1,410 | \$62,357 | 545 | \$21,877 |

| Facility | CO2 Reductions (Tons) | NOx Reduction (Tons) | SO2 Reduction (Tons) | Hg Reduction (lbs) |
|---------------|-----------------------|----------------------|----------------------|--------------------|
| HAMILTON | 9,033 | 5 | 0 | 0 |
| LAKE PLACID | 4,907 | 3 | 0 | 0 |
| TRENTON | 8,512 | 5 | 0 | 0 |
| COLUMBIA | 8,974 | 5 | 0 | 0 |
| Total: | 31,425 | 18 | 1 | 0 |

| Facility | O&M (\$) | Carrying Costs (\$) ⁽⁴⁾ | Capital (\$) ⁽⁵⁾ | Other (\$) ⁽⁶⁾ | Fuel Costs (\$) | Total Cost of Generation (\$) |
|---------------|------------------|------------------------------------|-----------------------------|---------------------------|-----------------|-------------------------------|
| HAMILTON | \$88,664 | \$711,637 | \$304,493 | \$16,388 | \$0 | \$1,121,182 |
| LAKE PLACID | \$468 | \$383,947 | \$162,210 | \$8,683 | \$0 | \$555,308 |
| TRENTON | \$452,703 | \$618,892 | \$264,657 | \$17,550 | \$0 | \$1,353,802 |
| COLUMBIA | \$0 | \$667,565 | \$275,317 | \$17,645 | \$0 | \$960,527 |
| Total: | \$541,835 | \$2,382,041 | \$1,006,677 | \$60,266 | \$0 | \$3,990,819 |

(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.

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

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

| Facility | Net Capability (MW) | Net Generation (MWh) ⁽¹⁾ | Capacity Factor (%) | Percent of Total Generation (%) | Total System Net Generation (MWh) ⁽²⁾ |
|---------------|---------------------|-------------------------------------|---------------------|---------------------------------|--|
| HAMILTON | 74.9 | 56,392 | 25.9% | 0.5% | 12,051,873 |
| LAKE PLACID | 45.0 | 31,131 | 23.8% | 0.3% | |
| TRENTON | 74.9 | 53,067 | 24.4% | 0.4% | |
| COLUMBIA | 74.9 | 23,725 | 10.9% | 0.2% | |
| Total: | 269.7 | 164,315 | 21.0% | 1.4% | |

| 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 | 489,777 | \$1.94 | 1,346 | \$55.50 | 199 | \$40.41 |
| LAKE PLACID | 271,490 | \$1.94 | 776 | \$55.44 | 111 | \$40.43 |
| TRENTON | 463,213 | \$1.94 | 1,332 | \$55.63 | 191 | \$40.42 |
| COLUMBIA | 207,326 | \$1.83 | 755 | \$50.70 | 174 | \$40.28 |
| Total: | 1,431,805 | \$2,739,847 | 4,210 | \$228,663 | 674 | \$27,220 |

| Facility | CO2 Reductions (Tons) | NOx Reduction (Tons) | SO2 Reduction (Tons) | Hg Reduction (lbs) |
|---------------|-----------------------|----------------------|----------------------|--------------------|
| HAMILTON | 30,757 | 18 | 1 | 0 |
| LAKE PLACID | 17,064 | 10 | 1 | 0 |
| TRENTON | 29,122 | 17 | 1 | 0 |
| COLUMBIA | 13,288 | 8 | 1 | 0 |
| Total: | 90,231 | 53 | 3 | 0 |

| Facility | O&M (\$) | Carrying Costs (\$) ⁽⁴⁾ | Capital (\$) ⁽⁵⁾ | Other (\$) ⁽⁶⁾ | Fuel Costs (\$) | Total Cost of Generation (\$) |
|---------------|--------------------|------------------------------------|-----------------------------|---------------------------|-----------------|-------------------------------|
| HAMILTON | \$731,690 | \$2,859,453 | \$1,217,945 | \$65,552 | \$0 | \$4,874,640 |
| LAKE PLACID | \$156,628 | \$1,533,873 | \$650,605 | \$34,732 | \$0 | \$2,375,838 |
| TRENTON | \$460,807 | \$2,429,955 | \$1,036,360 | \$70,200 | \$0 | \$3,997,322 |
| COLUMBIA | \$0 | \$1,331,268 | \$275,317 | \$35,290 | \$0 | \$1,641,876 |
| Total: | \$1,349,125 | \$8,154,550 | \$3,180,227 | \$205,774 | \$0 | \$12,889,676 |

(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 yet).