Dianne M. Triplett Deputy General Counsel Duke Energy Florida, LLC

October 16, 2017

VIA ELECTRONIC FILING

Ms. Carlotta Stauffer, Commission Clerk Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Re: Application for limited proceeding to approve 2017 second revised and restated settlement agreement, including certain rate adjustments, by Duke Energy Florida, LLC; Docket No. 20170183-EI

Dear Ms. Stauffer:

Please find enclosed for electronic filing, Duke Energy Florida, LLC's (DEF) Response to Staff's Ninth Data Request (Nos. 61-67).

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.

Respectfully,

s/Dianne M. Triplett

Dianne M. Triplett

DMT/mw Enclosure



Duke Energy Florida, LLC Docket No.: 20170183-EI 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 16th day of October, 2017.

s/Dianne M. Triplett

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DUKE ENERGY FLORIDA, LLC'S RESPONSE TO STAFF'S NINTH DATA REQUEST (NOS. 61-67) REGARDING DEF'S APPLICATION FOR LIMITED PROCEEDING TO APPROVE 2017 SECOND REVISED AND RESTATED SETTLEMENT AGREEMENT, INCLUDING CERTAIN RATE ADJUSTMENTS DOCKET NO. 20170183-EI

Please refer to Paragraph 15(a).

61. Please provide the estimated rate impact annually of the solar projects for a 1000/kwhmonth residential customer using the \$1,650 kWac cost cap.

RESPONSE

The residential rate impact using the cap of \$1,650/kWac would be approximately \$2.40 in 2019 assuming the maximum allowed MW of 350 and approximately \$1.20 in 2020 and \$1.20 in 2021 assuming the maximum allowed MW of 175 in each of these two years.

62. Please provide a resource plan that includes the solar projects and one without the solar projects for the term of the settlement. For each unit identified, please provide all features of the unit including but not limited to: MW, installed cost/MW, Fuel Type, Unit Type.

RESPONSE

DEF is unable to develop a new resource plan with the requested information in the timeframe provided. As part of its normal Ten Year Site Plan process, DEF intends to incorporate the impacts of the expected new solar units with the information requested. As required in paragraph 28 of the 2017 Settlement, DEF will also be assigning a capacity value to these solar units (see response to Data Request 66 below). Until this capacity value is determined, the impact of the new solar units on other future units cannot be known.

63. What benefits will rate payers realize from the construction of new solar projects as proposed within Paragraph 15?

RESPONSE

The specific benefits to customers associated with the construction of the new solar projects will be demonstrated in DEF's cost effectiveness analysis, which will accompany DEF's

future filings for cost recovery of the solar units. DEF believes that its solar units will deliver cost effective energy from dependable clean energy sources, long-term fuel diversity, increased fuel price stability and energy security. If the construction of the new solar units is not cost effective for customers, DEF is not permitted to utilize the base rate adjustment mechanism set forth in Paragraph 15 of the 2017 Settlement.

Please refer to Paragraph 27.

64. Please describe the factors that will be considered when determining if the \$2,300 kWac cost cap has been exceeded

RESPONSE

The average cost of the various projects that will make up the 50 MW total amount of battery storage will be used to calculate whether DEF has exceeded the \$2,300 kWac cost. Costs will include the total installed capital cost, (e.g. batteries, battery management systems, balance of plant, engineering, construction, and interconnection) to install the battery facilities.

65. Paragraph 27 states that implementation of the Battery Storage Pilot will provide benefits for customers. What benefits, specifically, will the customers receive?

RESPONSE

Customers will benefit by DEF being able to gather the necessary data to discern how various battery storage projects benefit either the local or bulk power grid. DEF believes that battery storage may have different applications on its system and can assist with bulk power needs and power grid services. For example, battery storage may defer transmission or distribution upgrades, provide ancillary services such as voltage support and frequency regulation, improve reliability, and harden the electric grid. In addition, battery storage coupled with solar facilities may increase the capacity value of those solar facilities, which would also benefit customers. This pilot will allow DEF to prove out these value streams, and define the economic benefit for its customers.

Please refer to Paragraph 28.

66. Describe the methodology DEF plans to use to determine the capacity value for its solar facilities. As part of this response, explain how input from SACE or other parties would be utilized in the design of the data to be collected for this purpose.

RESPONSE:

DEF is gathering data and information from its currently installed solar facilities as well as the projected performance of specific project designs to determine the value of solar as compared to its summer peak. As it finalizes its methodology for incorporating this data into its model, DEF will reach out to SACE and the other parties for a meeting to solicit any feedback and determine whether that feedback can and should be included in the methodology.

Please refer to Paragraph 33.

67. Describe the methodology DEF plans to use to collect data on the benefits and costs of the use of demand-side solar on its system. As part of this response, explain how this project is different from its prior solar pilot program.

RESPONSE:

The primary of purpose of the Research and Demonstration pilot approved in Commission Order PSC-10-0605-PAA-EG was to research and test renewable technologies through field demonstration projects. The projects included in this pilot were focused on understanding the performance of various solar technologies, understanding the impacts of renewables on distribution circuits, and exploring the use of large-scale storage for mitigation of issues due to the integration of solar. Whereas, the purpose of the initiative included in the 2017 Second Revised and Restated Settlement Agreement is to reasonably identify the economic and operational benefits and costs of demand-side solar to support overall rate design. This will be a more widespread study to better analyze specific customer impacts and will involve gathering and analyzing data to assess the operational characteristics, contributions to system peak, solar production performance, and customer impacts of demand-side solar.

AFFIDAVIT

STATE OF FLORIDA

COUNTY OF PINELLAS

I hereby certify that on this $\cancel{4}$ day of October, 2017, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared JAVIER J. PORTUONDO, who is personally known to me, and he acknowledged before me that he provided the responses to questions 61 through 67, from STAFF'S NINTH DATA REQUEST (NOS. 61-67) TO DUKE ENERGY FLORIDA, LLC in Docket No. 20170183-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this $\underline{/6^{H}}$ day of October, 2017.

MONIQUE WEST COMMISSION # FF 244727 EXPIRES: June 28, 2019 ed Thru Notary Public Underw

AULL

Javier J. Portuondo

Notary Public State of Fldrida

My Commission Expires:

Jun 28,2019