



Dianne M. Triplett
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Duke Energy Florida, LLC

August 1, 2016

Via ELECTRONIC DELIVERY

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

Re: Docket 160140-EQ
DEF Petition for Approval of Modifications to Standard Interconnection Agreement

Dear Ms. Stauffer:

On behalf of Duke Energy Florida, LLC ("DEF"), enclosed for filing is DEF's Response to Staff's First Data Request.

Thank you for your assistance in this matter. If you have any questions, please feel free to contact me at (727) 820-4692.

Sincerely,

/s/ Dianne M. Triplett

Dianne M. Triplett

DMT:at
Attachments

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 1st day of August, 2016.

/s/ Dianne M. Triplett

Attorney

Walter Trierweiler
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Duke Energy Florida, LLC's Response to Staff's First Data Request
Re: Docket No. 160140-EQ - Petition for approval of modifications to standard interconnection agreement contained in the approved tariff by Duke Energy Florida, LLC

1. Please refer to the petition, paragraph 3. Please identify and explain the following language: “recent developments in the nature of requested state jurisdictional interconnection requests,” and how the proposed modifications addresses these changes.

Response:

DEF has recently received requests to interconnect distributed energy resources that will not be delivering energy back to DEF. Because these distributed energy resources are not delivering energy back to DEF, a power purchase agreement is not required. In order to comply with the stipulation approved by the Florida Public Service Commission in Order No. PSC-06-0707-PAA-EI, issued August 18, 2006 in Docket No. 060410-EI, an interconnection agreement that is independent and not part of either the as available tariff or the standard offer tariff is required.

In addition, there are times when a QF transacts in the wholesale market and also sells to DEF. For FERC compliance, such configuration requires a FERC jurisdictional interconnection. While the QF would still need a QF-type purchase power agreement, an interconnection agreement would be FERC jurisdictional. This petition allows the interconnection agreement to be separated from the as available tariff or the standard offer tariff in the event that the interconnection for a specific project is FERC jurisdictional. This interconnection agreement will apply to any non-FERC jurisdictional QF power purchase agreement and distributed energy resources as defined by IEEE Standard 1547.

Finally, the reduction in the cost of solar photovoltaic systems combined with the requests for solar proposals in the Florida market have resulted in a dramatic rise in the interconnection requests to Duke Energy's system. The table below summarizes this increased activity.

<i>TYPE of Solar Interconnection</i>	<i>Delivery Point</i>	<i>Interconnection Level</i>	<i>2015</i>	<i>2016</i>
QFs planning on selling to DEF Only	To DEF Only	Transmission and Distribution	0	999
QFs selling to Market and/or DEF	To DEF and/or any Wholesale Entity	Transmission	50	568
Non-QFs/ Renewable Merchant Generators	To Wholesale Market Only	Transmission	100	617
TOTALS:			150	2,184

2. Please refer to proposed tariff page 9.700, paragraph 1, specifically the statement “...providing all net output for sale to the company.”
 - a. What effect, if any, would this proposed tariff have on Qualifying Facilities that are directly interconnected to DEF but not selling power to DEF?

Response:

In compliance with FERC rules, a QF that is directly connected to DEF but selling some or all of its output to another utility would need to obtain a FERC jurisdictional interconnection agreement.

- b. Please explain if under the proposed tariff it is possible for a Qualifying Facility to be directly interconnected to DEF and not provide as-available power to DEF.

Response:

Yes, the proposed tariff only contemplates interconnection and not power delivery. The tariff allows for a QF/DER to directly interconnect with DEF and operate in parallel with the DEF system regardless of whether power flows back into the DEF the system. If power were to flow back into the DEF system, it would require the QF to execute with DEF (1) a standard offer contract, (2) a negotiated contract, or (3) an as-available contract.

3. Please refer to proposed tariff page 9.701, paragraph 2.4. Please explain how this definition of Emergency Condition was derived and cite any and all rules and regulation used in crafting this definition.

Response:

PURPA, specifically 18 CFR 292.101(b)(4) defines a system emergency on the utility’s system. PURPA permits a utility to curtail qualifying facilities when a system emergency arises or reliability disruptions could be imminent on the utility’s system, so long as the utility has that contractual right in its agreement. Those regulations were passed in 1980, and as time has gone on, the meaning of what constitutes a system emergency has evolved to include other requirements from other regulatory and reliability agencies (such as the National Electric Reliability Council or “NERC”). Therefore, the proposed definition of “Emergency Condition” is designed to provide DEF the necessary flexibility to respond to imminent operational situations on the system and ensure that it will be able to respond in compliance with all applicable state and NERC regulations.

4. Please refer to proposed tariff page 9.702, paragraph 2.18. Please explain why IEEE Standard 1547 was added.

Response:

The stipulation approved by the Florida Public Service Commission in Order No. PSC-06-0707-PAA-EI, issued August 18, 2006 in Docket No. 060410-EI requires DEF to

provide interconnection services upon request to customers with distributed energy resources as defined in IEEE Standard 1547. The reference to IEEE Standard 1547 was added to ensure compliance with the stipulation.

5. Please refer to proposed tariff page 9.703, paragraphs 3.1 and 3.2.
 - a. Please explain how the Feasibility Study and Facilities Study in the proposed tariff are different from the previous requirement under the current tariff, and for each difference please explain why the new requirement was added.

Response:

The Feasibility Study is required to consider the reasonable alternatives available to interconnect the QF/DER and review those alternatives with the QF/DER so that the best alternative or alternatives can be studied further. The System Impact Study is the same as the preliminary cost estimate in the previous tariff. Similarly, there is no difference between the Facilities Study and the final estimate in the previous tariff. The terminology has been changed to utilize the terms commonly used in the industry and used in the FERC jurisdictional interconnection studies.

- b. Please provide estimated costs for performing each of these studies for a typical 50 MW Qualifying Facility.

Response:

The costs will vary depending upon the complexity of the interconnection generator and the configuration of the electric grid in the vicinity of the interconnection. It is expected that the combined cost of a Feasibility Study, System Impact Study and a Facilities Study for a 50 MW QF would be less than \$70,000.

- c. Please provide estimated costs for performing each of these studies for a typical distributed generation resource.

Response:

The costs will vary depending upon the complexity of the interconnection generator and the configuration of the electric grid in the vicinity of the interconnection. It is expected that the combined cost of a Feasibility Study, System Impact Study and a Facilities Study for a Distributed Resource as defined in IEEE 1547 would be less than \$30,000.

6. Please refer to proposed tariff page 9.704, paragraphs 3.2 and 3.3. Please explain the changes to the language about final design specifications.

Response:

Changes to the design specifications can have a significant effect on the scope and timing of the interconnection work required to safely and reliably interconnect a generator to

DEF's system. The requirement for final design specifications is included to ensure that studies do not have to be performed multiple times for the same queued request. This ensures a safe interconnection, an interconnection that clearly adheres to the engineering designs and fairness for all applicants in the interconnection queue.

7. Please refer to proposed tariff page 9.704, paragraph 3.6. Please explain the removal of the language "best practices."

Response:

What constitutes "best practices" is subjective and can change over time. Different facilities require different technical treatment, and each situation must be evaluated depending on the particular unique characteristics. The paragraph still clarifies that DEF will act in a non-discriminatory and non-preferential manner. However, DEF recommends removing the term because it may be vague and difficult to determine what would satisfy "best practices."

8. Please refer to proposed tariff page 9.705, paragraph 4.1. Please explain the removal of the line "on or after the specified date for initiation of construction."

Response:

The removal of this language helps to expedite and clarify the full cost responsibility to the QF. For example, there may be Interconnection Costs incurred before the date of initiation of construction. These costs may include engineering work for the interconnection that would need to be completed before construction.

9. Please refer to proposed tariff page 9.705, paragraph 4.2. Please explain the justification for and impact of the addition of the last sentence to the paragraph.

Response:

This sentence was added to address the situation when the party requesting interconnection is a distributed energy resource and does not have a power purchase agreement with DEF.

10. Please refer to proposed tariff page 9.705, paragraph 4.2.2. Please explain the addition of the last sentence, and specifically explain if the 15 day requirement is new and if so please detail what the prior arrangement was.

Response:

This language has been added to ensure that the Interconnection Costs are covered in the event that the QF cannot or chooses not to reimburse DEF for expenses after they have been incurred. The 15 day requirement is new and it has been added to allow adequate time to ensure that the letter of credit is acceptable and to notify the appropriate departments that construction can begin.

11. Please refer to proposed tariff page 9.706, paragraph 5.0. Please explain the necessity of the language “...if no sales to the company were involved” if sales were already required per proposed tariff page 9.700, paragraph 1.

Response:

The intent of this language is to credit the QF for costs that would be required if they were a customer that did not have a generator in compliance with Rule 25-17.087(9).

12. Please refer to proposed tariff page 9.707, paragraph 7.5. Please explain the addition of the language “...and such costs shall be the sole responsibility of the QF.”

Response:

This language clarifies that if the QF makes changes to its equipment that causes the need for subsequent studies or construction for continued grid safety or reliability, then those costs would be the responsibility of the QF.

13. Please refer to proposed tariff pages 9.711 and 9.712. Please explain the basis for the additional terms on these pages on a paragraph by paragraph basis, and estimated costs to a QF or distributed generation resource.

Response:

The paragraphs on tariff pages 9.711 and 9.712 were added to ensure that this agreement can stand-alone regardless of whether there is an associated QF purchase power agreement or not. As discussed previously, this agreement could apply to a distributed energy resource that does not deliver any energy to DEF. This agreement can also be used with an as available QF contract, a standard offer QF contract or a negotiated QF contract.

Paragraph 11 on tariff page 9.711 was added to ensure that the counterparty has the legal standing to enter into this agreement.

Paragraph 12 on tariff pages 9.711 and 9.712 was added to ensure that the QF meets the insurance requirements of Rule 25-17.887(5)(c) regardless of the requirements of an associated power purchase agreement. This insurance language was taken directly from DEF’s current approved standard offer contract. A single insurance policy could satisfy the insurance requirement of both the power purchase agreement and this interconnection agreement.

Paragraph 13 on tariff page 9.712 provides for Events of Default so that either party to this agreement can terminate the agreement in the event that the other party has defaulted.