# FILED JUN 29, 2017 **DOCUMENT NO. 05621-17 FPSC - COMMISSION CLERK**



# **Public Service Commission**

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE:

June 29, 2017

TO:

Office of Commission Clerk (Stauffer)

FROM:

Division of Engineering (Matthews, Thompson)

Office of the General Counsel (Cuello) SAC

RE:

Docket No. 170072-EQ – Petition for approval of amended standard offer contract

and amended interconnection agreement, by Duke Energy Florida, LLC.

**AGENDA:** 07/13/17 - Regular Agenda - Proposed Agency Action - Interested Persons May

Participate

**COMMISSIONERS ASSIGNED:** All Commissioners

PREHEARING OFFICER:

Administrative

CRITICAL DATES:

None

SPECIAL INSTRUCTIONS:

Staff recommends the Commission simultaneously

consider Docket Nos. 170070-EQ, 170075-EQ, 170076-

EQ, and 170077-EQ

# Case Background

Section 366.91(3), Florida Statutes (F.S.), requires that each investor-owned utility (IOU) continuously offers to purchase capacity and energy from renewable generating facilities and small qualifying facilities. Florida Public Service Commission (Commission) Rules 25-17.200 through 25-17.310, Florida Administrative Code (F.A.C.), implement the statute and require each IOU to file with the Commission, by April 1 of each year, a standard offer contract based on the next avoidable fossil fueled generating unit of each technology type identified in the utility's current Ten-Year Site Plan. On March 30, 2017, Duke Energy Florida, Inc. (DEF) filed a petition for approval of its amended standard offer contract and rate schedule and amended interconnection agreement based on its 2017 Ten-Year Site Plan. The standard offer contract

requires execution of the interconnection agreement; however, the interconnection agreement can be utilized without the standard offer contract.

The Commission has jurisdiction over this standard offer contract pursuant to Sections 366.04 through 366.06 and 366.91, F.S.

Docket No. 170072-EQ Issue 1

Date: June 29, 2017

# **Discussion of Issues**

**Issue 1:** Should the Commission approve the amended standard offer contract and associated rate schedule and amended interconnection agreement filed by Duke Energy Florida?

**Recommendation:** Yes. The provisions of the amended standard offer contract and associated rate schedule, along with the updated interconnection agreement, conform to all requirements of Rules 25-17.200 through 25-17.310, F.A.C. The amended standard offer contract provides flexibility in the arrangements for payments so that a developer of renewable generation may select the payment stream best suited to its financial needs. The updated interconnection agreement provides the Utility an opportunity to limit the physical capacity of any new connection based on testing results. Staff recommends that the revisions to the rate schedule and standard offer contract, as well as the updated interconnection agreement be approved as filed. (Matthews)

# Staff Analysis:

# **Standard Offer Contract**

Rule 25-17.250, F.A.C., requires that DEF, an IOU, continuously makes available a standard offer contract for the purchase of firm capacity and energy from renewable generating facilities (RF) and small qualifying facilities (QF) with design capacities of 100 kilowatts (kW) or less. Pursuant to Rule 25-17.250(1) and (3), F.A.C., the standard offer contract must provide a term of at least 10 years, and the payment terms must be based on the Utility's next avoidable fossil-fueled generating unit identified in its most recent Ten-Year Site Plan or, if no avoided unit is identified, its next avoidable planned purchase. DEF has identified a 228 MW natural gas-fueled combustion turbine (CT) facility as its next planned generating unit in its 2017 Ten-Year Site Plan. The projected in-service date of the unit is June 1, 2024.

The RF/QF operator may elect to make no commitment as to the quantity or timing of its deliveries to DEF, and to have a committed capacity of zero (0) MW. Under such a scenario, the energy is delivered on an as-available basis and the operator receives only an energy payment. Alternatively, the RF/QF operator may elect to commit to certain minimum performance requirements based on the identified avoided unit, such as being operational and delivering an agreed upon amount of capacity by the in-service date of the avoided unit, and thereby becomes eligible for capacity payments in addition to payments received for energy. The standard offer contract may also serve as a starting point for negotiation of contract terms by providing payment information to an RF/QF operator, in a situation where one or both parties desire particular contract terms other than those established in the standard offer.

In order to promote renewable generation, the Commission requires each IOU to offer multiple options for capacity payments, including the options to receive early or levelized payments. If the RF/QF operator elects to receive capacity payments under the normal or levelized contract options, it will receive as-available energy payments only until the in-service date of the avoided unit (in this case June 1, 2024), and thereafter begin receiving capacity payments in addition to the energy payments. If either the early or early levelized option is selected, then the operator will begin receiving capacity payments earlier than the in-service date of the avoided unit. However, payments made under the early capacity payments options tend to be lower in the later

years of the contract term because the net present value (NPV) of the total payments must remain equal for all contract payment options.

Table 1 below, estimates the annual payments for each payment option available under the amended standard offer contract to an operator with a 50 MW facility operating at a capacity factor of 95 percent, which is the minimum capacity factor required under the contract to qualify for full capacity payments. Normal and levelized capacity payments begin in 2024, reflecting the projected in-service date of the avoided unit (June 1, 2024).

Table 1 – Estimated Annual Payments to a 50 MW Renewable Facility (95% Capacity Factor)

| Year         | Energy<br>Payment | Capacity Payment (By Type) |           |         |                    |
|--------------|-------------------|----------------------------|-----------|---------|--------------------|
|              |                   | Normal                     | Levelized | Early   | Early<br>Levelized |
|              | \$(000)           | \$(000)                    | \$(000)   | \$(000) | \$(000)            |
| 2018         | 10,914            | -                          | •         | -       | -                  |
| 2019         | 8,896             | -                          | -         | -       | -                  |
| 2020         | 7,374             | -                          | -         | -       | -                  |
| 2021         | 7,703             | -                          | -         | -       | -                  |
| 2022         | 8,159             | -                          |           | 2,003   | 2,321              |
| 2023         | 8,417             | -                          | -         | 2,054   | 2,324              |
| 2024         | 8,784             | 1,529                      | 1,751     | 2,105   | 2,328              |
| 2025         | 9,122             | 2,687                      | 3,007     | 2,158   | 2,332              |
| 2026         | 9,518             | 2,754                      | 3,012     | 2,211   | 2,335              |
| 2027         | 9,654             | 2,823                      | 3,016     | 2,267   | 2,339              |
| 2028         | 9,856             | 2,894                      | 3,021     | 2,323   | 2,343              |
| 2029         | 10,073            | 2,966                      | 3,026     | 2,382   | 2,347              |
| 2030         | 10,307            | 3,040                      | 3,032     | 2,441   | 2,351              |
| 2031         | 10,801            | 3,116                      | 3,037     | 2,502   | 2,356              |
| 2032         | 11,373            | 3,194                      | 3,042     | 2,565   | 2,360              |
| 2033         | 11,738            | 3,274                      | 3,048     | 2,629   | 2,365              |
| 2034         | 12,126            | 3,356                      | 3,054     | 2,694   | 2,369              |
| 2035         | 12,728            | 3,440                      | 3,060     | 2,762   | 2,374              |
| 2036         | 13,245            | 3,526                      | 3,066     | 2,831   | 2,379              |
| 2037         | 13,811            | 3,614                      | 3,072     | 2,902   | 2,384              |
| Total        | 204,600           | 42,211                     | 41,244    | 38,828  | 37,606             |
| NPV (2018\$) | 100,862           | 16,647                     | 16,647    | 16,647  | 16,647             |

Source: DEF's Response to Staff's First Data Request<sup>1</sup>

Along with the updated avoided unit and payment information, DEF's 2017 amended standard offer contract includes content not seen in previous versions. Section 6.3 requires any RF/QF wishing to sell environmental attributes (EAs) to provide notice to DEF of its intent to sell the EAs, along with a "reasonable opportunity to offer to purchase such EAs." In its first data request, staff asked DEF to provide an explanation of the term "reasonable opportunity," along with a discussion of how this term relates to the right of first refusal which was expressly disallowed in standard offer contracts. DEF responded that a reasonable opportunity simply

<sup>&</sup>lt;sup>1</sup>Document No. 04583-17, dated May 2, 2017, in Docket No. 170072-EQ.

Date: June 29, 2017

means that it would have the same opportunity to purchase the EAs at the same terms and conditions as any other potential purchaser, and that the term "reasonable opportunity" does not rise to the level of a right of first refusal. Staff is persuaded that the inclusion of this section does not conflict with the Commission's intent. <sup>2</sup>

# **Interconnection Agreement**

The updated interconnection agreement contains two notable revisions. The first revision is a requirement that, in order to proceed with the project, the RF/QF must provide DEF with written notification of its intent to continue to the next study phase of the project after each previous study phase is completed, and also of its intent to proceed with construction. The second revision is a section noting DEF's right to limit the physical capacity of any RF/QF connection based on the results of static and dynamic testing.

The type-and-strike format versions of the amended standard offer contract and associated rate schedule, as well as the updated interconnection agreement, are included as Attachment A to this recommendation. All of the changes made to DEF's tariff sheets are consistent with the updated avoided unit.

# Conclusion

The provisions of DEF's amended standard offer contract and associated rate schedule, as filed on March 30 2017, conform to all requirements of Rules 25-17.200 through 25-17.310, F.A.C. The amended standard offer contract provides flexibility in the arrangements for payments so that a developer of renewable generation may select the payment stream best suited to its financial needs. The updated interconnection agreement provides the Utility an opportunity to limit the physical capacity of any new connection based on testing results. Staff recommends that the revisions to the rate schedule and standard offer contract, as well as the updated interconnection agreement be approved as filed.

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<sup>&</sup>lt;sup>2</sup>Order No. PSC-09-0643-FOF-EI, issued September 22, 2009, in Docket No. 080501-EI, In re: Petition for waiver of Rule 25-17.250(1) and (2)(a), F.A.C., which requires Progress Energy Florida to have a standard offer contract open until a request for proposal is issued for same avoided unit in standard offer contract, and for approval of standard offer contract.

# Issue 2: Should this docket be closed?

**Recommendation:** Yes. This docket should be closed upon issuance of a consummating order, unless a person whose substantial interests are affected by the Commission's decision files a protest within 21 days of the issuance of the Commission's Proposed Agency Action Order. Potential signatories should be aware that, if a timely protest is filed, DEF's standard offer contract and interconnection agreement may subsequently be revised. (Cuello)

**Staff Analysis:** This docket should be closed upon the issuance of a consummating order, unless a person whose substantial interests are affected by the Commission's decision files a protest within 21 days of the issuance of the Commission's Proposed Agency Action Order. Potential signatories should be aware that, if a timely protest is filed, DEF's standard offer contract and interconnection agreement may subsequently be revised.



# AMENDED STANDARD OFFER CONTRACT (Legislative format)

Tariff Sheets:

9.404, 9.406, 9.408, 9.412, 9.415, 9.416, 9.417, 9.418, 9.419, 9.420, 9.424, 9.425, 9.428, 9.430, 9.432, 9.435, 9.436, 9.437, 9.438, 9.439, 9.440, 9.441, 9.455, 9.456, 9.457, 9.458, 9.459, 9.467 and 9.468

DUKE ENERGY FLORIDA



SECTION NO. IX THERP FOURTH REVISED SHEET NO. 9.404 CANCELS SECOND-THIRD REVISED SHEET NO. 9.404

STANDARD OFFER CONTRACT FOR THE PURCHASE OF FIRM CAPACITY AND ENERGY FROM A RENEWABLE ENERGY PRODUCER OR QUALIFYING FACILITY LESS THAN 100 KW

# WITNESSETH:

WHEREAS, the RF/QF desires to sell, and DEF desires to purchase electricity to be generated by the RF/QF consistent with Florida Statutes 366.91 (2006) and FPSC Rules 25-17.080 through 25-17.310 F.A.C.; and

WHEREAS, the RF/QF will acquire an interconnection/transmission service agreement with the utility in whose service territory the Facility is to be located, pursuant to which the RF/QF assumes contractual responsibility to make any and all transmission-related arrangements (including ancillary services) between the RF/QF and the Transmission Provider for delivery of the Facility's firm capacity and energy to DEF. The Parties recognize that the Transmission Provider may be DEF and that the transmission service will be provided under a separate agreement; and

WHEREAS, the FPSC has approved this Contract for the Purchase of Firm Capacity and Energy from a Renewable Energy Producer; and

WHEREAS, the RF/QF guarantees that the Facility is capable of delivering firm capacity and energy to DEF for the term of this Contract in a manner consistent with the provision of this Contract;

NOW, THEREFORE, for mutual consideration the Parties agree as follows:

ISSUED BY: Javier Pertuondo, Director, Rates & Regulatory Strategy - FL EFFECTIVE:

Docket No. 170072-EQ Attachment A
Date: June 29, 2017 Page 3 of 78



SECTION No. IX FOURTH-FIFTH REVISED SHEET NO. 9,406 CANCELS THIRD-FOURTH REVISED SHEET NO. 9,406

"Base Capacity Payment" or "BCP" means capacity payment rates defined in Appendix D and further defined by the selection of Option A,B,C or D in Section 9.2 or in Appendix E if applicable.

"Base Year" means the year that this Contract was approved by the FPSC.

"<u>Business Day</u>" means any day except a day upon which banks licensed to operate in the State of Florida are authorized, directed or permitted to close, Saturday, Sunday or a weekday that is observed as a public holiday in the State of Florida.

"CAMD" means the Clean Air Markets Division of the Environmental Protection Agency or successor administrator (collectively with any local, state, regional, or federal entity given jurisdiction over a program involving transferability of Environmental Attributes).

"Capacity" means the minimum average hourly net capacity (generator output minus auxiliary load) measured over the Committed Capacity Test Period.

"Capacity Delivery Date" means the first calendar day immediately following the date of the Facility's successful completion of the first Committed Capacity Test.

"Capacity Payment" means the payment defined in Section 9.2 and Appendix A.

"Committed Capacity" or "CC" means the capacity in kMW that the RF/QF commits to sell to DEF; the amount of which shall be determined in accordance with Section 7 and shall be greater than zero.

"Committed Capacity Test" means the testing of the capacity of the Facility performed in accordance with the procedures set forth in Section 8.

"Committed Capacity Test Period" means a test period of twenty-four (24) consecutive hours.

"Completed Permits Date" means the date by which the RF/QF must complete licensing and certification, and obtain all federal, state and local governmental, environmental, and licensing approvals required to initiate construction of the Facility including Qualifying Facility status. This date is specified in Section 4.

"Completion/Performance Security" means the security described in Section 11.

"Conditions Precedent" shall have the meaning assigned to it in Section 5.

"Contract" means this standard offer contract for the purchase of Firm Capacity and Energy from a Renewable Energy Producer or Qualifying Facility with a nameplate capacity of less than 100 kW.

"Credit Support Provider" means any Person that has provided an RF/QF Guarantee in connection with this Agreement.

ISSUED BY: Javier Portuondo, Director, Rates & Regulatory Strategy - FL EFFECTIVE:



SECTION No. IX FOURTHFIFTH-REVISED SHEET NO. 9.408 CANCELS THIRD FOURTH REVISED -SHEET NO. 9.408

"Eligible Collateral" means (i) a Letter of Credit from a Qualified Institution or (ii) cash deposit provided to DEF by RF/QF or a combination of (i), and/or (ii) as outlined in Section 11.

"Energy" means megawatt-hours generated by the Facility of the character commonly known as three-phase, sixty hertz electric energy that is delivered at a nominal voltage at the Electrical Interconnection Point.

"Environmental Attributes" or "EA" means all attributes of an environmental or other nature that are created or otherwise arise from the Facility's generation of electricity from a renewable energy source in contrast with the generation of electricity using nuclear or fossil fuels or other traditional resources. Forms of such attributes include, without limitation, any and all environmental air quality credits, green credits, renewable energy credits ("RECs"), carbon credits, emissions reduction credits, certificates, tags, offsets, allowances, or similar products or rights, howsoever entitled. (i) resulting from the avoidance of the emission of any gas, chemical, or other substance, including but not limited to, mercury, nitrogen oxide, sulfur dioxide, carbon dioxide, carbon monoxide, particulate matter or similar pollutants or contaminants of air, water or soil gas, chemical, or other substance, and (ii) attributable to the generation, purchase, sale or use of Energy from or by the Facility, or otherwise attributable to the Facility during the Term. Environmental Attributes include, without limitation, those currently existing or arising during the Term under local, state, regional, federal, or international legislation or regulation relevant to the avoidance of any emission described in this Contract under any governmental, regulatory or voluntary program, including, but not limited to, the United Nations Framework Convention on Climate Change and related Kyoto Protocol or other programs, laws or regulations involving or administered by the Clean Air Markets Division of the Environmental Protection Agency ("CAMD") or successor administrator (collectively with any local, state, regional, or federal entity given jurisdiction over a program involving transferability of Environmental Attributes,).

"Event of Default" has the meaning assigned to it in Section 14.

"Execution Date" has the meaning assigned to it in the opening paragraph of this Contract.

"Exemplary Early Capacity Payment Date" means the exemplary date used to calculate Capacity Payments for Option B and D. This date is specified in Section 4. The actual Capacity Payments for Option B and D will be calculated based upon the Required Capacity Delivery Date.

"Expiration Date" means the final date upon which this Contract can be executed. This date is specified in Section 4.

"Facility" means all equipment, as described in this Contract, used to produce electric energy and, and all equipment that is owned or controlled by the RF/QF required for parallel operation with the Transmission System. In the case of a cogenerator the Facility includes all equipment that is owned or controlled by the RF/QF to produce useful thermal energy through the sequential use of energy.

ISSUED BY: Javier Portuondo, Director, Rates & Regulatory Strategy - FL EFFECTIVE:



SECTION No. IX THIRD FOURTH REVISED SHEET NO. 9.412 CANCELS -SECOND-THIRD REVISED SHEET NO. 9.412

"Qualifying Facility" or "QF" means a cogenerator, small power producer, or non-utility generator that has been certified or self-certified by the FERC as meeting certain ownership, operating and efficiency criteria established by the Federal Energy Regulatory Commission pursuant to the Public Utility Regulatory Policies Act of 1978 ("PURPA"), the criteria for which are currently set forth in 18 C.F.R. § 292, et seq. (2006), Section 210 of PURPA, 16 U.S.C. § 824a-3 (2005), 16 U.S.C. 796 et seq. (2006), and Section 1253 of EPAct 2005, Pub. L. No. 109-58, § 1253, 119 Stat. 594 (2005) or, alternatively, analogous provisions under the laws of the State of Florida.

"Qualified Institution" means the domestic office of a United States commercial bank or trust company or the United States branch of a foreign bank having total assets of at least ten billion dollars (\$10,000,000,000) (which is not an affiliate of either party) and a general long-term senior unsecured debt rating of A- or higher (as rated by Standard & Poor's Ratings Group), or A3 or higher (as rated by Moody's Investor Services).

"Rate Schedule COG-1" means DEF's Agreement for Purchase of As-Available Energy and/or Parallel Operation with a Qualifying Facility as approved by the FPSC and as may be amended from time to time.

"REC" means renewable energy credits, green tags, green tickets, renewable certificates, tradable renewable energy credits ("T-REC") or any tradable certificate that is produced by a renewable generator in addition to and in proportion to the production of electrical energy.

"Reduction Value" has the meaning assigned to it in Appendix B.

"Remedial Action Plan" has the meaning assigned to it in Section 20.3.

"Renewable Facility" or "RF/OF" means an electrical generating unit or group of units at a single site, interconnected for synchronous operation and delivery of electricity to an electric utility, where the primary energy in British Thermal Units used for the production of electricity is from one or more of the following sources: hydrogen produced from sources other than fossil fuels, biomass, solar energy, geothermal energy, wind energy, ocean energy, hydroelectric power or waste heat from a commercial or industrial manufacturing process.

"Required Capacity Deliver Date" means the date specified in Appendix E. In the event that no Required Capacity Delivery Date is specified in Appendix E then the RF/QF shall achieve the Capacity Delivery Date on or before the Avoided Unit In-Service Date

"RF/OF Entities" has the meaning assigned to it in Section 16.

ISSUED BY: Javier Portugndo, Director, Rates & Regulatory Strategy - FL EFFECTIVE:



SECTION NO. IX TENTH FLEVENTH REVISED SHEET NO. 9.415 CANCELS NINTH-TENTH REVISED SHEET NO. 9.415

# 3. Term of Contract

Except as otherwise provided herein, this Contract shall become effective immediately upon its execution by the Parties and shall end at 12:01 a.m. on the Termination Date, (the "Term") unless terminated earlier in accordance with the provisions hereof. Notwithstanding the foregoing, if the Capacity Delivery Date of the Facility is not accomplished by the RF/QF before the Required Capacity Delivery Date (or such later date as may be permitted by DEF pursuant to Section 7), this Contract shall be rendered null and void and DEF's shall have no obligations under this Contract.

# 4. Minimum Specifications and Milestones

As required by FPSC Rule 25-17.0832(4)(e), the minimum specifications pertaining to this Contract and milestone dates are as follows:

| Undesignated Combustion Turbine              |  |  |
|--|--|--|
| 228 <del>849</del> MW                        |  |  |
| June 1, 2024                                 |  |  |
| 10,672239 BTU/kWh                            |  |  |
| 0.09511152¢ per kWh in mid-20176 dollars     |  |  |
| escalating annually at 2.50%                 |  |  |
| 35 years                                     |  |  |
| Avoided Unit In-Service Date unless Option   |  |  |
| B, or D is selected or amended in Appendix E |  |  |
| May 31, 2034 (10 years) unless amended in    |  |  |
| Appendix E                                   |  |  |
| 95%  |  |  |
|  |  |  |
| 95%  |  |  |
|  |  |  |
| 75%  |  |  |
|  |  |  |
| April 1, 201 <u>8</u> 7                      |  |  |
| June 1, 2022                                 |  |  |
| January 1, 20223                             |  |  |
|  |  |  |

<sup>\*</sup> RF/QF performance shall be as measured and/or described in Appendix A.

ISSUED BY: Javier Portuondo, Director, Rates & Regulatory Strategy • FL



SECTION No. IX SIXTH-SEVENTH REVISED SHEET NO. 9.416 CANCELS FIFTH-SIXTH REVISED SHEET NO. 9.416

#### 5. Conditions Precedent

- (a) Unless otherwise waived in writing by DEF, on or before the Drop Dead Date, RF/QF shall satisfy the following Conditions Precedent:
  - (i) RF/QF shall have obtained firm transmission service necessary to deliver Capacity and energy from the Facility to the Electrical Interconnection Point, in a form and substance satisfactory to RF/QF in its sole discretion;
  - (ii) RF/QF shall have obtained the Project Consents and any other Consents for which it is responsible under the terms hereof in a form and substance satisfactory to RF/QF in its sole discretion;
  - (iii) RF/QF shall have entered into Financing Documents relative to the construction of the Facility and have achieved Financial Closing in a form and substance satisfactory to RF/QF in its sole discretion;
  - (iv) RF/QF shall have entered into the Project Contracts in a form and substance satisfactory to RF/QF in its sole discretion;
  - (v) RF/QF shall have obtained insurance policies or coverage in compliance with Section 17;
  - (vi) Each Party shall have delivered to the other Party (i) a copy of its constitutional documents (certified by its corporate secretary as true, complete and up-to-date) and (ii) a copy of a corporate resolution approving the terms of this Contract and the transactions contemplated hereby and authorizing one or more individuals to execute this Contract on its behalf (such copy to have been certified by its corporate representative as true, complete and up-to-date);
  - (vii) RF/QF shall have obtained Qualifying Facility status from either the FPSC or FERC. The RF/QF shall provide the Duke Energy Florida Director of Qualified Facility Contracts a copy of the certification of QF status filing and any re-filings required to reflect subsequent changes to the previously certified Facility.
- (b) Promptly upon satisfaction of the Conditions Precedent to be satisfied, the Party having satisfied the same shall deliver to the other Party a certificate evidencing such satisfaction. DEF may waive the satisfaction of a Condition Precedent at its sole discretion. Such waiver must be made in writing. Subject to there being no Event of Default which has occurred and/or is continuing as of the date upon which the last of such certificates is delivered, the date of such last certificate shall constitute the effective date of this Contract (the "Effective Date").
- (c) Unless all Conditions Precedent are satisfied on or before the Drop Dead Date or such Conditions Precedent are waived in writing, this Contract shall terminate on such date and neither Party shall have any further liability to the other Party hereunder.
- (d) RF/QF shall achieve the Capacity Delivery Date on or before the Required Capacity Delivery Date.

ISSUED BY: Javier Portuondo, Director, Rates & Regulatory Stratogy - FL EFFECTIVE:

Attachment A Page 8 of 78

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SECTION No. IX
THIRDFOURTH-REVISED SHEET NO. 9.417
CANCELS SECOND THIRD REVISED SHEET NO. 9.417

- (e) RF/QF shall ensure that before the initial Committed Capacity Test:
  - the Facility shall have been constructed so that the Committed Capacity Test may be duly and properly undertaken in accordance with Section 7; and
  - (b) an operable physical connection from the Facility to the Transmission System shall have been effected in accordance with the electrical interconnection and operating agreement required by the Transmission Provider, provided, however, that such physical connection shall be made consistent with the terms hereof.
- 6. Sale of Electricity by the RF/QF
  - 6.1 Consistent with the terms hereof, the RF/QF shall sell to DEF and DEF shall purchase from the RF/QF electric power generated by the Facility. The purchase and sale of electricity pursuant to this Contract shall be a ( ) net billing arrangement or ( ) simultaneous purchase and sale arrangement; provided, however, that no such arrangement shall cause the RF/QF to sell more than the Facility's net output. The billing methodology may be changed at the option of the RF/QF, subject to the provisions of Appendix D.
  - 6.2 Ownership and Offering For Sale Of Renewable Energy Attributes

Subject to the right of refusal of DEF set forth in Section 6.3. The RF/QF shall retain any and all rights to own and to sell any and all Environmental Attributes associated with the electric generation of the Facility.

- 6.3 In the event that the RF/OF decides to sell any or all EAs that result from the electric generation of the RF/OF during the term of this Contract, the RF/OF shall provide notice to the Company of its intent to sell such EAs and provide the Company a reasonable opportunity to offer to purchase such EAs.
- 6.34 The RF/QF shall not rely on interruptible or curtailable standby service for the start up requirements (initial or otherwise) of the Facility.
- 6.45 The RF/QF shall be responsible for the scheduling of required transmission and for all costs, expenses, taxes, fees and charges associated with the delivery of energy to DEF. The RF/QF shall enter into a transmission service agreement with the Transmission Provider in whose service territory the Facility is to be located and the RF/QF shall make any and all transmission-related arrangements (including interconnection and ancillary services) between the RF/QF and the Transmission Provider for delivery of the Facility's firm Capacity and energy to DEF. The Capacity and energy amounts paid to the RF/QF hereunder do not include transmission losses. The RF/QF shall be responsible for transmission losses that occur prior to the point at which the RF/QF's energy is delivered to DEF. The Parties recognize that the Transmission Provider may be DEF and that

ISSUED BY: Javier Portuondo, Director, Rates & Regulatory Strategy - FL FFFFCTIVE\*

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SECTION No. IX THIRDFOURTH-REVISED SHEET NO. 9.417 CANCELS SECOND THIRD REVISED SHEET NO. 9.417

if DEF is the Transmission Provider, the transmission service will be provided under a separate agreement.

ISSUED BY: Javier Portucado, Director, Rates & Regulatory Strategy - FL EFFECTIVE:



SECTION No. DX FIFTH-SIXTH REVISED SHEET NO. 9.418 CANCELS FOURTH-FIFTH REVISED SHEET NO. 9.418

# 7. Committed Capacity/Capacity Delivery Date

7.1 In the event that the RF/QF elects to make no commitment as to the quantity or timing of its deliveries to DEF, then its Committed Capacity as defined in the following Section 7.2 shall be zero (0) MW. If the Committed Capacity is zero (0) MW, Sections 7.2 though Section 7.7 and all of Section 8 shall not apply:

- 7.12 If the RF/QF commits to sell capacity to DEF, the amount of which shall be determined in accordance with this Section 7. Subject to Section 7.24, the Committed Capacity is set at \_\_\_\_\_ kW, with an expected Capacity Delivery Date on or before the Required Capacity Delivery Date.
- 7.23 Capacity testing of the Facility (each such test a Committed Capacity Test) shall be performed in accordance with the procedures set forth in Section 8. The Demonstration Period for the first Committed Capacity Test shall commence no earlier than ninety (90) days before the Required Capacity Delivery Date and testing must be completed before the Avoided Unit In-Service Date or an earlier date in Appendix E. The first Committed Capacity Test shall not be successfully completed unless the Facility demonstrates a Capacity of at least one hundred percent (100%) of the Committed Capacity set forth in Section 7.12. Subject to Section 8.1, the RF/QF may schedule and perform up to three (3) Committed Capacity Tests to satisfy the requirements of the Contract with respect to the first Committed Capacity Test.
- 7.34 In addition to the first Committed Capacity Test, DEF shall have the right to require the RF/QF, after notice of no less than ten (10) Business Days prior to such proposed event, to validate the Committed Capacity by means of a Committed Capacity Test at any time, up to two (2) times per year, the results of which shall be provided to DEF within seven (7) calendar days of the conclusion of such test. On and after the date of such requested Committed Capacity Test, and until the completion of a subsequent Committed Capacity Test, the Committed Capacity shall be set at the lower of the Capacity tested or the Committed Capacity as set forth in Section 7.12. Provided however, any such second test requested within a twelve (12) month period must be for cause.

ISSUED BY: Javior Portuondo, Director, Rates & Regulatory Strategy - FL



SECTION No. IX SIXTH-SEVENTH REVISED SHEET NO. 9.419 CANCELS FIFTH-SIXTH REVISED SHEET NO. 9.419

- 7.45 Notwithstanding anything contrary to the terms hereof, the Committed Capacity may not exceed the amount set forth in Section 7.12 without the consent of DEF, which consent shall be granted in DEF's sole discretion.
- 7.56 Unless Option B or D as contained in Appendix D or Appendix E is chosen by RF/QF, DEF shall make no Capacity Payments to the RF/QF prior to the Avoided Unit In-Service Date.
- 7.67 The RF/QF shall be entitled to receive Capacity Payments beginning on the Capacity Delivery Date, provided the Capacity Delivery Date occurs before the Required Capacity Delivery Date (or such later date permitted by DEF). If the Capacity Delivery Date does not occur before the Required Capacity Delivery Date, DEF shall immediately be entitled to draw down the Completion/Performance Security in full.

# 8. Testing Procedures

- 8.1 The Committed Capacity Test must be completed successfully within the Demonstration Period, which period, including the approximate start time of the Committed Capacity Test, shall be selected and scheduled by the RF/QF by means of a written notice to DEF delivered at least thirty (30) calendar days prior to the start of such period. The provisions of the foregoing sentence shall not apply to any Committed Capacity Test ordered by DEF under any of the provisions of this Contract. DEF shall have the right to be present onsite to monitor firsthand any Committed Capacity Test required or permitted under this Contract.
- 8.2 The Committed Capacity Test results shall be based on a test period of twenty-four (24) consecutive hours (the "Committed Capacity Test Period") at the highest sustained net kW rating at which the Facility can operate without exceeding the design operating conditions, temperature, pressures, and other parameters defined by the applicable manufacturer(s) for steady state operations at the Facility. The Committed Capacity Test Period shall commence at the time designated by the RF/QF pursuant to Section 8.1 or at such time requested by DEF pursuant to Section 7.34; provided, however, that the Committed Capacity Test Period may commence earlier than such time in the event that DEF is notified of, and consents to, such earlier time.
- 8.3 Normal station service use of unit auxiliaries, including, without limitation, cooling towers, heat exchangers, and other equipment required by law, shall be in service during the Committed Capacity Test Period.

ISSUED BY: Javier Portuondo, Director, Rates & Regulatory Strategy - FL EFFECTIVE:

Docket No. 170072-EQ Attachment A
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SECTION No. IX SECTH-SEVENTH REVISED SHEET NO. 9.419 CANCELS FIFTH-SEXTH REVISED SHEET NO. 9.419

8.4 The Capacity of the Facility shall be the minimum hourly net output in kW (generator output minus auxiliary) measured over the Committed Capacity Test Period.

ISSUED BY: Javier Portuendo, Director, Rates & Regulatory Strategy - FL EFFECTIVE:

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Docket No. 170072-EQ Date: June 29, 2017



SECTION No. IX FOURTH-EIFTH REVISED SHEET NO. 9.420 CANCELS THIRD-FOURTH REVISED SHEET NO. 9.420

- 8.5 The Committed Capacity Test shall be performed according to standard industry testing procedures for the appropriate technology of the RF/QF.
- 8.6 The results of any Committed Capacity Test, including all data related to Facility operation and performance during testing, shall be submitted to DEF by the RF/QF within seven (7) calendar days of the conclusion of the Committed Capacity Test. The RF/QF shall certify that all such data is accurate and complete.

# 9. Payment for Electricity Produced by the Facility

#### 9.1 Energy

- 9.1.1 DEF agrees to pay the RF/QF for energy produced by the Facility and delivered to DEF in accordance with the rates and procedures contained in DEF's approved Rate Schedule COG-1, as it may be amended from time to time if the Committed Capacity pursuant to Section 7.2 is set to zero. If the Committed Capacity is greater than zero MW, then DEF agrees to pay the RF/QF for energy produced by the Facility and delivered to DEF in accordance with the rates and procedures contained in Appendix D, as it may be amended from time to time. The Parties agree that this Contract shall be subject to all of the provisions contained in Rate Schedule COG-1 or Appendix D whichever applies as approved and on file with the FPSC.
- 9.1.2 DEF may, at its option, limit deliveries under this Contract to 110% of the Committed Capacity as set forth in Section 7. In the event that DEF chooses to limit deliveries, any energy in excess of 110% of the Committed Capacity will be paid for at the rates defined in Rate Schedule COG-1 and shall not be included in the calculations in Appendix A hereto.

# 9.2 Capacity

DEF agrees to pay the RF/QF for the Capacity described in Section 7 in accordance with the rates and procedures contained in Appendix D, as it may be amended and approved from time to time by the FPSC, and pursuant to the election of Option \_\_\_\_\_\_ of Appendix D or an alternative rate schedule in Appendix E. The RF/QF understands and agrees that Capacity Payments will only be made if the Capacity Delivery Date occurs before the Required Capacity Delivery Date and the Facility is delivering firm Capacity and Energy to DEF. Once so selected, this Option, the Firm Capacity Rate and/or the Firm Energy Rate cannot be changed for the term of this Contract.

ISSUED BY: Javier Portuondo, Director, Rates & Regulatory Strategy - FL



SECTION No. IX SEVENTH <u>FIGHTH</u> REVISED SHEET NO. 9.424 CANCELS SECTH <u>SEVENTH</u> REVISED SHEET NO. 9.424

- The choice of the type of Eligible Collateral by the RF/QF may be selected from time to time by the RF/QF and upon receipt of substitute Eligible Collateral, DEF shall promptly release such the Eligible Collateral that has been replaced by the substitute Eligible Collateral. Following any termination of this Contract, the Parties shall mutually agree to a final settlement of all obligations under this Contract which such period shall not exceed 90 days from such termination date unless extended by mutual agreement between the Parties. After such settlement, any remaining Eligible Collateral posted by the RF/QF that has not been drawn upon by DEF pursuant to its rights under this Contract shall be returned to the RF/QF. Any dispute between the Parties regarding such final settlement shall be resolved according to applicable procedures set forth in Section 20.9.
- 11.3 Draws, Replenishment DEF may draw upon Eligible Collateral provided by the RF/QF following the occurrence of an Event of Default or pursuant to the other provisions of this Contract in order to recover any damages to which DEF is entitled to under this Contract. In the event of such a draw then, except in the circumstance when this Contract otherwise terminates, the RF/QF shall within five (5) Business Days replenish the Eligible Collateral to the full amounts required.

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SECTION No. IX FIFTH-SIXTH REVISED SHEET NO. 9.425 CANCELS FOURTH-FIFTH REVISED SHEET NO. 9.425

- 11.4 In the event that the (a) Capacity Delivery Date occurs before the Required Capacity Delivery Date and (b) the ACBF is equal to or greater than 95% for the first twelve (12) months fellowing the Capacity Delivery Date then DEF will return the Completion/Performance Security to the RF/QF within ninety (90) days of the first anniversary of the Capacity Delivery Date. In the event that the Capacity Delivery Date does not occur before the Required Capacity Delivery Date then DEF shall immediately be entitled to draw down the Completion/Performance Security in full. In the event that the ACBF is less than 95% for any of the first twelve (12) months following the Capacity Delivery Date then DEF shall retain be entitled to draw upon the Completion/Security, until the ACBF is equal to or greater than 95% for 12 consecutive months. Upon the completion of twelve (12) consecutive months with the ACBF greater than or equal to 95% then DEF will return the Completion/Performance Security within ninety (90) days.
- 11.5 Reporting RF/QF shall promptly notify DEF of any circumstance that results in RF/QF's failure to be in compliance with the RF/QF Performance Security Requirements of this Section 11. From time to time, at DEF's written request, RF/QF shall provide DEF with such evidence as DEF may reasonably request, that RF/QF Letter of Credit or Security Account is in full compliance with this Contract.

# 12. Termination Fee and Security

- 12.1 In the event that the RF/QF receives Capacity Payments pursuant to Option B, Option C, or Option D of Appendix D or any Capacity Payment schedule in Appendix E that differs from a Normal Capacity Payment Rate as calculated in FPSC Rule 25-17.0832(6)(a), then upon the termination of this Contract, the RF/QF shall owe and be liable to DEF for the Termination Fee. The RF/QF's obligation to pay the Termination Fee shall survive the termination of this Contract. DEF shall provide the RF/QF, on a monthly basis, a calculation of the Termination Fee.
  - 12.1.1 The Termination Fee shall be secured by the RF/QF by: (i) an unconditional, irrevocable, standby letter(s) of credit issued by a Qualified Institution in form and substance acceptable to DEF (including provisions (a) permitting partial and full draws and (b) permitting DEF to draw upon such Letter of Credit, in full, if such Letter of Credit is not renewed or replaced at least twenty (20) Business Days prior to its expiration date); (ii) a bond issued to DEF by a financially sound company in form and substance acceptable to DEF in its sole discretion; or (iii) a cash deposit with DEF (any of (i), (ii), or (iii), the "Termination Security").

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SECTION No. IX FOURTH-FIFTH REVISED SHEET NO. 9.428 CANCELS THIRD-FOURTH REVISED SHEET NO. 9.428

- (j) if, at any time after the Capacity Delivery Date, the RF/QF reduces the Committed Capacity due to an event of Force Majeure and fails to repair the Facility and reset the Committed Capacity to the level set forth in Section 7.12 (as such level may be reduced by Section 7.24) within twelve (12) months following the occurrence of such event of Force Majeure; or
- (k) either Party breaches any material provision of this Contract not specifically mentioned in this Section 14;
- (1) the RF/QF fails to maintain its status as a Qualifying Facility.
- (m) the RF/OF sells any energy or firm capacity to an entity other than DEF.

# 15. Rights in the Event of Default

- 15.1 Upon the occurrence of any of the Events of Default in Section 14, the DEF may, at its option:
  - 15.1.1 immediately terminate this Contract, without penalty or further obligation, except as set forth in Section 15.2, by written notice to the RF/QF, and offset against any payment(s) due from DEF to the RF/QF, any monies otherwise due from the RF/QF to DEF;
  - 15.1.2 enforce the provisions of the Completion/Performance Security pursuant to Section 11 and/or the Termination Security requirement pursuant to Section 12 hereof, as applicable; and
  - 15.1.3 exercise any other remedy(ies) which may be available to DEF at law or in equity.
- 15.2 Termination shall not affect the liability of either Party for obligations arising prior to such termination or for damages, if any, resulting from any breach of this Contract.

# 16. Indemnification

16.1 DEF and the RF/QF shall each be responsible for its own facilities. DEF and the RF/QF shall each be responsible for ensuring adequate safeguards for other DEF customers, DEF's and the RF/QF's personnel and equipment, and for the protection of its own generating system. Each Party (the "Indemnifying Party") agrees, to the extent permitted by applicable law, to indemnify, pay, defend, and hold harmless the other Party (the "Indemnified Party") and its officers, directors, employees, agents and contractors (hereinafter called respectively, "DEF Entities" and "RF/QF Entities") from and against any and all claims, demands, costs or expenses for loss, damage, or injury to persons or property of the Indemnified Party (or to third parties) directly caused by, arising out of, or resulting from:

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SECTION No. IX THIRD-FOURTH REVISED SHEET NO. 9.430 CANCELS SECOND-THIRD REVISED SHEET NO. 9.430

- 17.2 The RF/QF Insurance for liability shall have a minimum limit of five million dollars (\$5,000,000.00) per occurrence for bodily injury (including death) or property damage. This liability limit can be met by any combination of commercial general and excess liability insurance policies.
- 17.3 To the extent that the RF/QF Insurance is on a "claims made" basis, the retroactive date of the policy(ies) shall be the Effective Date of this Contract or an earlier date. Furthermore, to the extent the RF/QF Insurance is on a "claims made" basis, the RF/QF's duty to provide insurance coverage shall survive the termination of this Contract until the expiration of the maximum statutory period of limitations in the State of Florida for actions based in contract or in tort. To the extent the RF/QF Insurance is on an "occurrence" basis, such insurance shall be maintained in effect at all times by the RF/QF during the term of this Contract.
- 17.4 The RF/QF shall provide DEF with a copy of any material communication or notice related to the RF/QF Insurance within ten (10) Business Days of the RF/QF's receipt or issuance thereof.
- 17.5 DEF shall be designated as an additional named insured under the RF/QF Insurance (except Workers' Compensation). The RF/QF Insurance shall be be primary to any coverage maintained by DEF and provide, where permitted by law, waiver of any rights of subrogation against DEF. Any deductibles or retentions shall be the sole responsibility of RF/QF. RF/QF's compliance with these provisions and the limits of insurance specified herein shall not constitute a limitation of RF/QF's liability or otherwise affect RF/QF's indemnification obligations pursuant to this Contract. Any failure to comply with all of these provisions shall not be deemed a waiver of any rights of DEF under this Contractor with respect to any insurance coverage required hereunder. DEF may request the RF/QF to provide a copy of any or all of its required insurance policies, including endorsements in which DEF is included as an additional insured for any claims filed relative to this Contract.

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SECTION No. IX SECONDITION—REVISED SHEET NO. 9.432 CANCELS FIRST-SECOND REVISED SHEET

- 18.4 The Party claiming Force Majeure shall use its best efforts to cure the cause(s) preventing its performance of this Contract; provided, however, the settlement of strikes, lockouts and other labor disputes shall be entirely within the discretion of the affected Party and such Party shall not be required to settle such strikes, lockouts or other labor disputes by acceding to demands which such Party deems to be unfavorable.
- 18.5 If the RF/QF suffers an occurrence of an event of Force Majeure that reduces the generating capability of the Facility below the Committed Capacity, the RF/QF may, upon notice to DEF temporarily adjust the Committed Capacity as provided in Sections 18.6 and 18.7. Such adjustment shall be effective the first calendar day immediately following DEF's receipt of the notice or such later date as may be specified by the RF/QF. Furthermore, such adjustment shall be the minimum amount necessitated by the event of Force Majeure.
- 18.6 If the Facility is rendered completely inoperative as a result of Force Majeure, the RF/QF shall temporarily set the Committed Capacity equal to 0 kW until such time as the Facility can partially or fully operate at the Committed Capacity that existed prior to the Force Majeure. If the Committed Capacity is 0 kW, DEF shall have no obligation to make Capacity Payments hereunder.
- 18.7 If, at any time during the occurrence of an event of Force Majeure or during its cure, the Facility can partially or fully operate, then the RF/QF shall temporarily set the Committed Capacity at the maximum capability that the Facility can reasonably be expected to operate.
- 18.8 Upon the cessation of the event of Force Majeure or the conclusion of the cure for the event of Force Majeure, the Committed Capacity shall be restored to the Committed Capacity that existed immediately prior to the Force Majeure. Notwithstanding any other provisions of this Contract, upon such cessation or cure, DEF shall have right to require a Committed Capacity Test to demonstrate the Facility's compliance with the requirements of this Section 18.8. Any such Committed Capacity Test required by DEF shall be additional to any Committed Capacity Test under Section 7.24.
- 18.9 During the occurrence of an event of Force Majeure and a reduction in Committed Capacity under Section 18.5 all Monthly Capacity Payments shall reflect, pro rata, the reduction in Committed Capacity, and the Monthly Capacity Payments will continue to be calculated in accordance with the pay-for-performance provisions in Appendix A.

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SECTION No. IX THIRD-FOURTH REVISED SHEET NO. 9.435 CANCELS SECOND-THIRD REVISED SHEET NO. 9.435

# 20. General Provisions

# 20.1 Project Viability

To assist DEF in assessing the RF/QF's financial and technical viability, the RF/QF shall provide the information and documents requested in Appendix C or substantially similar documents, to the extent the documents apply to the type of Facility covered by this Contract and to the extent the documents are available. All documents to be considered by DEF must be submitted at the time this Contract is presented to DEF. Failure to provide the following such documents may result in a determination of non-viability by DEF.

# 20.2 Permits

The RF/QF hereby agrees to obtain and maintain any and all permits, certifications, licenses, consents or approvals of any governmental authority which the RF/QF is required to obtain as a prerequisite to engaging in the activities specified in this Contract.

# 20.3 Project Management

If requested by DEF, the RF/QF shall submit to DEF its integrated project schedule for DEF's review within sixty (60) calendar days from the execution of this Contract, and a start-up and test schedule for the Facility at least sixty (60) calendar days prior to start-up and testing of the Facility. These schedules shall identify key licensing, permitting, construction and operating milestone dates and activities. If requested by DEF, The RF/QF shall submit monthly progress reports in a form satisfactory to DEF within fifteen (15) calendar days after the close of each month from the first month following the Effective Date until the Capacity Delivery Date. The RF/OF every ealendar-month-until-the-Capacity Delivery Date and shall notify DEF of any changes in such schedules within ten (10) calendar days after such changes are determined. If for any reason, DEF has reason to believe that RF/OF may fail to achieve the Capacity Delivery Date, then, upon DEF's request, RF/OF shall submit to DEF, within ten (10) business days of such request, a remedial action plan ("Remedial Action Plan") that sets forth a detailed description of RF/OF's proposed course of action to promptly achieve the Capacity Delivery Date. Delivery of a Remedial Action Plan does not relieve RF/OF of its obligation to the Capacity Delivery Date. DEF shall have the right to monitor the construction, start-up and testing of the Facility, either on-site or off-site. DEF's technical review and inspections of the Facility and resulting requests, if any, shall not be construed as endorsing the design thereof or as any warranty as to the safety, durability or reliability of the Facility.

The RF/QF shall provide DEF with the final designer's/manufacturer's generator capability curves, protective relay types, proposed protective relay settings, main one line diagrams, protective relay functional diagrams, and alternating current

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SECTION No. IX THIRD-FOURTH REVISED SHEET NO. 9.435 CANCELS SECOND-THIRD REVISED SHEET NO. 9.435

and direct-elementary diagrams for review and inspection at DEF no later than one hundred eighty (180) calendar days prior to the initial synchronization date.

# 20.4 Assignment

Either Party-may not assign this Contract, without the other Party's prior written approval, which approval may not be unreasonably withheld or delayed.

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SECTION No. IX SECOND\_THIRD\_REVISED SHEET NO. 9.436 CANCELS FIRST\_SECOND\_REVISED SHEET NO. 9.436

The RF/OF shall provide DEF with the final designer's/manufacturer's generator capability curves, protective relay types, proposed protective relay settings, main one-line diagrams, protective relay functional diagrams, and alternating current and direct elementary diagrams for review and inspection at DEF no later than one hundred eighty (180) calendar days prior to the initial synchronization date,

# 20.4 Assignment

Either Party may not assign this Contract, without the other Party's prior written approval, which approval may not be unreasonably withheld or delayed.

The RF/OF shall be responsible for DEF's reasonable costs and expenses associated with the review, negotiation, execution and delivery of any such documents or information pursuant to such collateral assignment, including reasonable attorney's fees.

#### 20.5 Disclaimer

In executing this Contract, DEF does not, nor should it be construed, to extend its credit or financial support for benefit of any third parties lending money to or having other transactions with the RF/QF or any assigns of this Contract.

# 20.6 Notification

All formal notices relating to this Contract shall be deemed duly given when delivered in person, or sent by registered or certified mail, or sent by fax if followed immediately with a copy sent by registered or certified mail, to the individuals designated below. The Parties designate the following individuals to be notified or to whom payment shall be sent until such time as either Party furnishes the other Party written instructions to contact another individual:

| For the RF/QF: | For DEF:                     |  |  |
|----------------|------------------------------|--|--|
|                | Duke Energy Florida          |  |  |
|                | Cogeneration Manager DEF 155 |  |  |
|                | 299 First Avenue North       |  |  |
|                | St. Petersburg, FL 33701     |  |  |

Contracts and related documents may be mailed to the address below or delivered during normal business hours (8:00 a.m. to 4:45 p.m.) to the visitors' entrance at the address below:

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SECTION No. IX SEGOND-<u>THIRD</u> REVISED SHEET NO. 9.438 CANCELS FIRST-<u>SECOND</u> REVISED SHEET NO. 9.438

Florida Power Gorporation d/b/a Duko Energy Florida, Inc. 299 First Avenue North St. Petersburg, FL 33701

**Attention: Cogeneration Manager-DEF 155** 

20.7 Applicable Law

This Contract shall be construed in accordance with and governed by the laws of the State of Florida, and the rights of the parties shall be construed in accordance with the laws of the State of Florida.

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SECTION No. IX FIRST-SECOND REVISED SHEET NO. 9.437 CANCELS ORIGINALFIRST\_REVISED SHEET NO. 9.437

Contracts and related documents may be mailed to the address below or delivered during normal business hours (8:00 a.m. to 4:45 p.m.) to the visitors' entrance at the address below:

Duke Energy Florida, LLC d/b/a Duke Energy 299 First Ayenue North St, Petersburg, FL 33701

Attention: Cogeneration Manager DEF 155

# 20.7 Applicable Law

This Contract shall be construed in accordance with and governed by the laws of the State of Florida, and the rights of the parties shall be construed in accordance with the laws of the State of Florida.

#### 20.8 Taxation

In the event that DEF becomes liable for additional taxes, including interest and/or penalties arising from an Internal Revenue Services determination, through audit, ruling or other authority, that DEP's payments to the RF/QF for Capacity under Options B, C, or D of the Appendix D are not-fully deductible when paid (additional tax-liability), DEF may bill the RF/QF monthly for the costs, including carrying charges, interest and/or-penalties, associated with the fact that all-or a portion of these Capacity Payments are not currently deductible for federal and/or state income tax purposes. DEF, at its option, may offset or recoup these costs against amounts due the RF/QF hereunder. These costs would be calculated so as to place DEF-in the same economic position in which it would have been if the entire Capacity Payments had been deductible in the period in which the payments were made. If DEF decides to appeal the Internal-Revenue-Service's determination, the decision as to whether the appeal should be made through the administrative or judicial process or both, and all subsequent decisions pertaining to the appeal (both substantive and procedural); shall rest exclusively with DEF.

The RF/OF shall hold DEF and its general body of ratepayers harmless from the effects of any additional taxes, assessments or other impositions that arise as a result of the purchase of energy and capacity from the RF/OF in lieu of other energy and capacity. Any savings in regards to taxes or assessments shall be included in the avoided cost payments made to the RF/OF to the extent permitted by law. In the event DEF becomes liable for additional taxes, assessments or impositions arising out of its transactions with the RF/OF under this tariff schedule or any related interconnection agreement or due to changes in laws affecting DEF's purchases of energy and capacity from the RF/OF occurring after the

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SECTION No. IX FIRST SECOND REVISED SKEET NO. 9.437 CANCELS GRIGINALFIRST REVISED SKEET NO. 9.437

execution of an agreement under this tariff schedule and for which DEF would not have been liable if it had produced the energy and/or constructed facilities sufficient to provide the capacity contemplated under such agreement itself. DEF may bill the RF/OF monthly for such additional expenses or may offset them against amounts due to the RF/OF from DEF. Any savings in taxes, assessments or impositions that accrue to DEF as a result of its purchase of energy and capacity under this tariff schedule that are not already reflected in the avoided energy or avoided capacity payments made to the RF/OF hereunder, shall be passed on to the RF/OF to the extent permitted by law without consequential penalty or loss of such benefit to DEF.

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SECTION No. IX SECOND-THIRD REVISED SHEET NO. 9.438 CANCELS FIRST-SECOND REVISED SHEET NO. 9.438

#### 20.9 Resolution of Disputes

# 20.9.1 Notice of Dispute

In the event that any dispute, controversy or claim arising out of or relating to this Contract or the breach, termination or validity thereof should arise between the Parties (a "Dispute"), the Party may declare a Dispute by delivering to the other Party a written notice identifying the disputed issue.

# 20.9.2 Resolution by Parties

Upon receipt of a written notice claiming a Dispute, executives of both Parties shall meet at a mutually agreeable time and place within ten (10) business days after delivery of such notice and thereafter as often as they reasonably deem necessary, to exchange relevant information and to attempt to resolve the Dispute. In such meetings and exchanges, a Party shall have the right to designate as confidential any information that such Party offers. No confidential information exchanged in such meetings for the purpose of resolving a Dispute may be used by a Party in litigation against the other Party. If the matter has not been resolved within thirty (30) calendar days of the disputing Party's notice having been issued, or if the Parties fail to meet within ten (10) business days as required above, either Party may initiate binding arbitration in St. Petersburg, Florida, conducted in accordance with the then current American Arbitration Association's ("AAA") Large, Complex Commercial Rules or other mutually agreed upon procedures.

# 20.10 Limitation of Liability

IN NO EVENT SHALL DEF, ITS PARENT CORPORATION, OFFICERS, DIRECTORS, EMPLOYEES, AND AGENTS BE LIABLE FOR ANY INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL, EXEMPLARY, PUNITIVE, OR MULTIPLE DAMAGES RESULTING FROM ANY CLAIM OR CAUSE OF ACTION, WHETHER BROUGHT IN CONTRACT, TORT (INCLUDING, BUT NOT LIMITED TO, NEGLIGENCE OR STRICT LIABILITY), OR ANY OTHER LEGAL THEORY.

#### 20.11 Severability

If any part of this Contract, for any reason, is declared invalid or unenforceable by a public authority of appropriate jurisdiction, then such decision shall not affect the validity of the remainder of the Contract, which remainder shall remain in

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SECTION No. IX SECOND<u>THIRD</u> REVISED SHEET NO. 9.438 CANCELS FIRST<u>SECOND</u> REVISED SHEET NO. 9.438

force and effect as if this Contract had been executed without the invalid or unenforceable portion.

# 20.12 Complete Agreement and Amendments

All-previous communications or agreements between the Parties, whether-verbal or written, with reference to the subject-matter of this Contract are hereby abrogated. - No amendment or medification to this Contract shall be binding unless it shall be set forth in writing and duly executed by both Parties. This Contract constitutes the entire agreement between the Parties.

# 20.13 Survival of Contract

Subject to the requirements of Section 20.4, this Contract, as it may be amended from time to time, shall be binding upon, and inure to the benefit of, the Parties' respective successors-in-interest and legal representatives.

# 20.14 Record Retention

Each Party-shall-maintain for a period of five (5) years from the date-of termination hereof all records relating to the performance of its obligations hereunder.

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SECTION No. IX SECOND-THIRD REVISED SHEET NO. 9.439 CANCELS FIRSTSECOND\_REVISED SHEET

# 20.11 Severability

If any part of this Contract, for any reason, is declared invalid or unenforceable by a public authority of appropriate jurisdiction, then such decision shall not affect the validity of the remainder of the Contract, which remainder shall remain in force and effect as if this Contract had been executed without the invalid or unenforceable portion.

# 20.12 Complete Agreement and Amendments

All previous communications or agreements between the Parties, whether verbal or written, with reference to the subject matter of this Contract are hereby abrogated. No amendment or modification to this Contract shall be binding unless it shall be set forth in writing and duly executed by both Parties. This Contract constitutes the entire agreement between the Parties.

# 20.13 Survival of Contract

Subject to the requirements of Section 20.4, this Contract, as it may be amended from time to time, shall be binding upon, and inure to the benefit of, the Parties' respective successors-in-interest and legal representatives.

#### 20.14 Record Retention

Each Party shall maintain for a period of five (5) years from the date of termination hereof all records relating to the performance of its obligations hereunder.

# 20.15 No Waiver

No waiver of any of the terms and conditions of this Contract shall be effective unless in writing and signed by the Party against whom such waiver is sought to be enforced. Any waiver of the terms hereof shall be effective only in the specific instance and for the specific purpose given. The failure of a Party to insist, in any instance, on the strict performance of any of the terms and conditions hereof shall not be construed as a waiver of such Party's right in the future to insist on such strict performance.

# 20.16 Set-Off

ISSUED BY: Javier Portuondo, Director, Rates & Regulatory Strategy - FL

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SECTION No. DX SECOND-THIRD REVISED SHEET NO. 9.439 CANCELS FIRSTSECOND REVISED SHEET NO. 9.439

DEF may at any time, but shall be under no obligation to, set off or recoup any and all sums due from the RF/QF against sums due to the RF/QF hereunder without undergoing any legal process.

# 20.17 Change in Environmental Law or Other Regulatory Requirements

- (a) As used herein, "Change(s) in Environmental Law or Other Regulatory Requirements" means the enactment, adoption, promulgation, implementation, or issuance of, or a new or changed interpretation of, any statute, rule, regulation, permit, license, judgment, order or approval by a governmental entity that specifically addresses environmental or regulatory issues and that takes offeet after the Effective Date.
- (b) The Parties acknowledge that Change(s) in Environmental Law or Other Regulatory Requirements could significantly affect the cost of the Avoided Unit ("Avoided Unit Cost Changes") and agree that, if any such change(s) should affect the cost of the Avoided Unit more than the Threshold defined in Section 20.17(e) below, the Party affected by such change(s) may avail itself of the remedy set forth in Section 20.17(d) below as its sole and exclusive remedy.
- (e) The Parties recognize and agree that certain Change(s) in Environmental Law or Other Regulatory Requirements may occur that do not rise to a level that the Parties desire to impact this Contract. Accordingly, the Parties agree that for the purposes of this Contract, such change(s) will not be deemed to have occurred unless the change in Avoided Cost resulting from such change(s) exceed a mutually agreed upon amount. This mutually agreed upon amount is attached to this Contract in Appendix E.

ISSUED BY: Javier Portuondo, Director, Rates & Regulatory Strategy - FL

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SECTION No. IX FOURTH-FIFTH REVISED SHEET NO. 9.440 CANCELS THIRD-FOURTH REVISED SHEET NO. 9.440

#### 20.17 Change in Environmental Law or Other Regulatory Requirements

- (a) As used herein, "Change(s) in Environmental Law or Other Regulatory
  Requirements" means the enactment, adoption, promulgation,
  implementation, or issuance of, or a new or changed interpretation of, any
  statute, rule, regulation, permit, license, judgment, order or approval by a
  governmental entity that specifically addresses environmental or
  regulatory issues and that takes effect after the Effective Date.
- (b) The Parties acknowledge that Change(s) in Environmental Law or Other Regulatory Requirements could significantly affect the cost of the Avoided Unit ("Avoided Unit Cost Changes") and agree that, if any such change(s) should affect the cost of the Avoided Unit more than the Threshold defined in Section 20.17(c) below, the Party affected by such change(s) may avail itself of the remedy set forth in Section 20.17(d) below as its sole and exclusive remedy.
- (c) The Parties recognize and agree that certain Change(s) in Environmental
  Law or Other Regulatory Requirements may occur that do not rise to a
  level that the Parties desire to impact this Contract, Accordingly, the
  Parties agree that for the purposes of this Contract, such change(s) will not
  be deemed to have occurred unless the change in Avoided Cost resulting
  from such change(s) exceed a mutually agreed upon amount. This
  mutually agreed upon amount is attached to this Contract in Appendix E.
- (d) If an Avoided Unit Cost Change meets the threshold set forth in Section 20.17(c) above, the affected Party may request the avoided cost payments under this Contract be recalculated and that the avoided cost payments for the remaining term of the Contract be adjusted based on the recalculation, subject to the approval of the FPSC. Any dispute regarding the application of this Section 20.17 shall be resolved in accordance with Section 20.9.

# 20.18 Provision of Information.

Within a reasonable period of time after receiving a written request therefore from the requesting Party, the other Party hereto shall provide the requesting Party with information that is reasonable and related to the non-requesting Party and/or the facilities or operations of the non-requesting Party that the requesting Party reasonably requires in order to comply with a Requirement of Law or any requirement of Generally Accepted Accounting Principles promulgated by the Financial Accounting Standards Board (or any successor thereto), (including, but not limited to, FIN 46-R) applicable to the requesting Party. In the event that a party requires information or reports that are not within its possession to meet financial reporting requirements, the parties will work in good faith to enable the requesting party to meet its financial reporting requirements.

ISSUED BY: Javier Portuondo, Director, Rates & Regulatory Strategy - FL

Attachment A Page 30 of 78

Docket No. 170072-EQ Date: June 29, 2017

| DUKE<br>ENERGY.                                    | SECTION No. IX SECOND <u>THRD</u> REVISED SKEET NO. 9.441 CANCELS FIRST <u>SECOND</u> REVISED SHEET NO. 9.441 |
|--|---|
| IN WITNESS WHEREOF, to below.                      | he RF/QF has executed this Contract on the date set forth   |
| RF/QF  |   |
| Signature  | _   |
| Print Name   | -   |
| Title  | _   |
| Date   |   |
| IN WITNESS WHEREOF, I                              | DEF has acknowledged receipt of this executed Contract.   |
| DUKE ENERGY FLORIDA                                | , <del>INC</del> LLC.   |
| Signature  | _   |
| Print Name   | _   |
| Title  | _   |
|  | ·<br>   |
| ISSUED BY: Javier Portuondo, Directo<br>EFFECTIVE: | or, Rates & Regulatory Stratogy - FL  |

| DUKE<br>ENERGY.   | SECTION No. IX SECOND THRDREVISED SHEET NO. 9.441 CANCELS FIRST-SECOND REVISED SHEET NO. 9.441 |
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| ISSUED BY: Javier Portuondo, Director, Rates & Regi<br>EFFECTIVE: | ulatory Strategy - FL  |



SECTION No. IX TENTH-ELEVENTH REVISED SHEET NO. 9.455 CANCELS NINTHTENTH-REVISED SHEET NO. 9.455

## TABLE 3 EXAMPLE MONTHLY CAPACITY PAYMENT IN \$/kW/MONTH DEF'S June 1, 2024 Undesignated CT Renewable or Qualifying Facility Standard Offer Contract Avoided Capacity Payments

#### (\$/kW/MONTH)

|          | <u>Option A</u><br>Normal<br>Capacity | <u>Option B</u> Early Capacity | Option C Levelized Capacity | Option D  Early Levelized  Capacity |
|----------|---------------------------------------|--------------------------------|-----------------------------|-------------------------------------|
| Contract | Payment Starting                      | Payment Starting               | Payment Starting            | Payment Starting                    |
| Year     | on the Avoided                        | on the                         | on the Avoided              | on the                              |
|          | Unit In-Service                       | Exemplary                      | Unit In-Service             | Exemplary                           |
|          | Date                                  | Capacity                       | Date                        | Capacity                            |
|          |                                       | Payment Date                   |                             | Payment Date                        |
| 2021     |                                       |                                |                             |                                     |
| 2022     |                                       | <del>3.71</del> <u>3.36</u>    |                             | 4 <del>.19</del> 3.80               |
| 2023     |                                       | <del>3.80</del> 3.45           |                             | <del>4.20</del> 3.80                |
| 2024     | 4 <del>.82</del> 4.37                 | <del>3.90</del> 3.53           | <del>5.35<u>4.84</u></del>  | 4 <del>.20</del> 3.81               |
| 2025     | 4.944.48                              | 4.003.62                       | <del>5.36<u>4.85</u></del>  | <del>4.21</del> 3.82                |
| 2026     | <del>5.07</del> 4.59                  | 4 <del>.10</del> 3.71          | <del>5.36<u>4.86</u></del>  | 4 <u>.223.82</u>                    |
| 2027     | <del>5.194.70</del>                   | 4 <del>.20</del> 3.81          | <del>5.37<u>4.87</u></del>  | <del>4.22</del> <u>3.83</u>         |
| 2028     | <del>5.32</del> 4.82                  | 4.303.90                       | <del>5.38<u>4.87</u></del>  | 4 <del>.23</del> 3.83               |
| 2029     | <del>5.46<u>4.94</u></del>            | 4.41 <u>4.00</u>               | <del>5.394.88</del>         | <del>4.24</del> <u>3.84</u>         |
| 2030     | <del>5.59</del> 5.07                  | 4 <del>.52</del> 4.10          | <del>5.40</del> 4.89        | <del>4.24</del> <u>3.85</u>         |
| 2031     | <del>5.73</del> <u>5.19</u>           | 4.634.20                       | <del>5.41</del> 4.90        | <del>4.25</del> <u>3.86</u>         |
| 2032     | <del>5.88</del> <u>5.32</u>           | 4 <del>.75</del> 4.31          | <del>5.42</del> 4.91        | 4 <del>.26</del> 3.86               |
| 2033     | <del>6.02</del> <u>5.46</u>           | 4. <del>87</del> 4.41          | <del>5.43</del> 4.92        | 4 <del>.27</del> 3.87               |
| 2034     | <del>6.17<u>5.59</u></del>            | 4.99 <u>4.52</u>               | <del>5.44<u>4.93</u></del>  | 4.283.88                            |

The Capacity Payment schedules contained in this Contract assume a term
of ten years from the Avoided Unit In-Service Date. In the event the
RF/QF requests a term greater than ten years but less than the Avoided
Unit Life then DEF shall prepare a schedule of Capacity Payments for the
requested term. Such Capacity Payment rates shall be calculated utilizing
the value-of-deferral methodology described in FPSC Rule 25-17.0832(6).

ISSUED BY: Javier Portuondo, Director, Rates & Regulatory Strategy - FL EFFECTIVE:

EFFECTIVE



SECTION No. IX FIRST-SECOND REVISED SHEET NO. 9.456 CANCELS ORIGINAL-FIRST REVISED SHEET NO. 9.456

The RF/QF may also request an alternative Capacity Payment rate stream from DEF as authorized by Rule 25-17.250(4). Regardless of the Capacity Payment rate stream requested by the RF/QF, the cumulative present value of the capital cost payments made to the RF/QF over the term of the Contract shall not exceed the cumulative present value of the capital cost payments had such payments been made pursuant to FPSC Rule 25-17.0832(4)(g)(i). Fixed operation and maintenance expense shall be calculated to conform with FPSC Rule 25-17.0832(6)(b). Such an alternative Capacity Payment rate shall be subject to the Termination Fee in Appendix B.

In the event that alternative Capacity Payment rates are agreed upon, such Capacity Payment rate schedule shall be attached to the Contract in Appendix E.

#### B. Energy Rates

#### Payments Prior to the Avoided Unit In-Service Date

 The energy rate, in cents per kilowatt-hour (¢/kWh), shall be based on DEF's actual hourly avoided energy costs which are calculated by DEF in accordance with FPSC Rule 25-17.0825, F.A.C.

The calculation of payments to the RF/QF shall be based on the sum over all hours of the billing period, of the product of each hour's avoided energy cost times the amount of energy (kWh) delivered to DEF from the Facility for that hour. All purchases shall be adjusted for losses from the point of metering to the point of interconnection.

2. Upon request of the RF/QF, DEF shall provide the RF/QF the option of receiving energy payments based on DEF's year-by-year projection of system incremental costs prior to hourly economy energy sales to other utilities, based on normal weather and fuel conditions plus a mutually agreed upon market volatility risk premium. If this option is chosen, such payments will be calculated on an annual basis and the first year's estimated payment schedule shall be attached to this Contract in Appendix E.

#### Payments Starting on Avoided Unit In-Service Date

The calculation of payments to the RF/QF for energy delivered to DEF on and after the Avoided Unit In-Service Date shall be the sum, over all hours of the Monthly Billing Period, of the product of (a) each hour's Firm Energy Rate

ISSUED BY: Javier Portuondo, Director, Rates & Regulatory Strategy - FL

EFFECTIVE



SECTION No. IX FIRST-SECOND REVISED SHEET NO. 9.456 CANCELS ORIGINAL FIRST REVISED SHEET NO. 9.456

(¢/kWh); and (b) the amount of energy (kWh) delivered to DEF from the Facility during that hour.



SECTION No. IX TENTH-ELEVENTH REVISED SHEET NO. 9.457 CANCELS NINTH-TENTH REVISED SHEET NO.

For any period during which energy is delivered by the RF/QF to DEF, the Firm Energy Rate in cents per kilowatt hour (\$\xi\$/Wh) shall be the following on an hour-by-hour basis: the lesser of (a) the As-Available Energy Rate and (b) the Avoided Unit Energy Cost. The Avoided Unit Energy Cost, in cents per kilowatt - hour (\$\xi\$/Wh) shall be defined as the product of (a) the Avoided Unit Fuel Cost and (b) the Avoided Unit Heat Rate; plus (c) the Avoided Unit Variable O&M.

For the purposes of this agreement, the Avoided Unit Fuel Cost shall be determined from gas price published in Platts Inside FERC, Gas Market Report, first of the month posting for Florida Gas Transmission ("FGT") Zone 3, plus other charges, surcharges and percentages that are in effect from time to time.

The Parties may mutually agree to fix a minority portion of the base firm energy payments associated with the Avoided Unit and amortize that fixed portion, on a present value basis, over the term of the Contract. Such fixed firm energy payments may, at the option of the RF/QF, start as early as the Avoided Unit In-Service Date. For purposes of this paragraph, "base firm energy payments associated with the Avoided Unit" means the energy costs of the Avoided Unit to the extent that the Avoided Unit would have been operated. If this option is mutually agreed upon, it will be attached to this Contract in Appendix E.

#### ESTIMATED AS-AVAILABLE ENERGY COST

For informational purposes only, the estimated incremental avoided energy costs for the next-five years are as follows. The following estimates include variable operation and maintenance expenses.

| Applicable Period | Average        | <del>On-Peak</del><br><del>6/KWH</del> | Off Poak       |
|-------------------|----------------|--|----------------|
| <del>2016</del>   | 3.5            | 3.5                                    | 3.4            |
| <del>2017</del>   | 3.6            | <del>3.7</del>                         | <del>3.5</del> |
| <del>2018</del>   | <del>3.7</del> | · 3.8                                  | <del>3.6</del> |
| <del>2019</del>   | <del>3.7</del> | 3.8                                    | <del>3.6</del> |
| <del>2020</del>   | <del>3.9</del> | <del>4.0</del>                         | <del>3.8</del> |

As required in Section 25-17.0825, F.A.C., information relating to as-available energy cost projections will be provided within 30 days of a written request for such projections by any interested person.



SECTION NO. IX TENTH-ELEVENTH REVISED SHEET NO. 9.458 CANCELS NATH-TENTH REVISED SHEET NO. 9.458

#### ESTIMATED UNIT FUEL COST

The estimated unit fuel costs listed below are associated with the Avoided Unit and are based on current estimates of the price of natural gas.

#### **SAMMBTU**

| <del>2017</del> | <del>2018</del> | <del>2019</del> | 2020 | <del>2021</del> | 2022            | 2023 | <del>2024</del> | <del>2025</del> |
|-----------------|-----------------|-----------------|------|-----------------|-----------------|------|-----------------|-----------------|
| 3.41            | 3.49            | 3.84            | 4.64 | 5.34            | <del>5.96</del> | 6.19 | 6.43            | 6.67            |

As required in Section 25-17.0832, F.A.C., the estimated fuel costs associated with DEF's Avoided Unit are based on current estimates of the price of natural gas and will be provided within 30 days of a written request for such projections by any interested person.

#### **DELIVERY VOLTAGE ADJUSTMENT**

DEF's average system line losses are analyzed annually for the prior calendar year, and delivery efficiencies are developed for the transmission, distribution primary, and distribution secondary voltage levels. This analysis is provided in the DEF's Procedures For Changing The Real Power Loss Factor (currently Attachment Q) in its Open Access Transmission Tariff and DEF's fuel cost recovery filing with the FPSC. An adjustment factor, calculated as the reciprocal of the appropriate delivery efficiency factor, is applicable to the above determined energy costs if the RF/QF is within DEF's service territory to reflect the delivery voltage level at which RF/QF energy is received by the DEF.

The current delivery voltage adjustment factors are:

| Delivery Voltage              | Adjustment Factor  |
|-------------------------------|--------------------|
| Transmission Voltage Delivery | 1.013 <u>6</u> 8   |
| Primary Voltage Delivery      | 1.023 <u>6</u> 8   |
| Secondary Voltage Delivery    | 1.0 <u>629</u> 533 |

#### **PERFORMANCE CRITERIA**

Payments for firm Capacity are conditioned on the RF/QF's ability to maintain the following performance criteria:

#### A. Capacity Delivery Date

The Capacity Delivery Date shall be no later than the Required Capacity Delivery Date.



SECTION NO. DX TEMPHELEVENTH REVISED SHEET NO. 9.458 CANCELS NIMPHENTH REVISED SHEET NO. 9.458

#### B. Availability and Capacity Factor

The Facility's availability and capacity factor are used in the determination of firm Capacity Payments through a performance based calculation as detailed in Appendix A to the Contract.



SECTION No. IX SECOND-THIRD REVISED SHEET NO. 9.459 CANCELS FIRST-SECOND REVISED SHEET NO. 9.459

#### METERING REQUIREMENTS

The RF/QFs within the territory served by DEF shall be required to purchase from DEF hourly recording meters to measure their energy deliveries to DEF. Energy purchases from the RF/QFs outside the territory of DEF shall be measured as the quantities scheduled for interchange to DEF by the entity delivering Firm Capacity and Energy to DEF.

For the purpose of this Contract, the on peak hours shall be those hours occurring April 1 through October 31, from 11:00 a.m. to 10:00 p.m., and November 1 through March 31, from 6:00 a.m. to 12:00 noon and 5:00 p.m. to 10:00 p.m. prevailing Eastern time. DEF shall have the right to change such on peak Hours by providing the RF/QF a minimum of thirty calendar days' advance written notice.

#### **BILLING OPTIONS**

A RF/QF, upon entering into this Contract for the sale of firm capacity and energy or prior to delivery of as-available energy, may elect to make either simultaneous purchases from and sales to DEF, or net sales to DEF; provided, however, that no such arrangement shall cause the RF/QF to sell more than the Facility's net output. A decision on billing methods may only be changed: 1) when a RF/QF selling as-available energy enters into this Contract for the sale of firm capacity and energy; 2) when a Contact expires or is lawfully terminated by either the RF/QF or DEF; 3) when the RF/QF is selling as-available energy and has not changed billing methods within the last twelve months; 4) when the election to change billing methods will not contravene the provisions of FPSC Rule 25-17.0832 or a contract between the RF/QF and DEF.

If a RF/QF elects to change billing methods, such changes shall be subject to the following: 1) upon at least thirty days advance written note to DEF; 2) the installation by DEF of any additional metering equipment reasonably required to effect the change in billing and upon payment by the RF/QF for such metering equipment and its installation; and 3) upon completion and approval by DEF of any alteration(s) to the interconnection reasonably required to effect the change in billing and upon payment by the RF/QF for such alteration(s).

Payments due a RF/QF will be made monthly and normally by the twentieth business day following the end of the billing period. The kilowatt-hours sold by the RF/QF and the applicable avoided energy rates at which payment are being made shall accompany the payment to the RF/QF.



SECTION No. IX TENTH FLEVENTH REVISED SHEET NO. 9.487 CANCELS NINTH-TENTH REVISED SHEET NO. 9.467

### SCHEDULE 2 TO RATE SCHEDULE COG-2CAPACITY OPTION PARAMETERS

#### FIXED VALUE OF DEFERRAL PAYMENTS -NORMAL CAPACITY OPTION PARAMETERS

#### Where, for one year deferral:

|                  |   |   | <u>Value</u>                               |
|------------------|---|---|--|
| VAC <sub>m</sub> | = | DEF's value of avoided capacity and O&M, in dollars per kilowatt per month, during month m;   | 4. <del>82</del> <u>37</u>                 |
| K                | = | present value of carrying charges for one dollar of investment over L years with carrying charges computed using average annual rate base and assumed to be paid at the middle of each year and present valued to the middle of the first year; | 1.3 <u>17<del>09</del></u>                 |
| I <sub>n</sub>   | = | total direct and indirect cost, in mid-year dollars per kilowatt including AFUDC but excluding CWIP, of the Avoided Unit with an in-service date of year n;   | <del>770.85</del> <u>697.2</u><br><u>7</u> |
| On               | = | total fixed operation and maintenance expense, for the year n, in mid-year dollars per kilowatt per year, of the Avoided Unit:  | <del>3.87</del> <u>3.67</u>                |
| <b>i</b> p       | = | annual escalation rate associated with the plant cost of the Avoided Unit;  | 2.50%                                      |
| i <sub>o</sub>   | = | annual escalation rate associated with the operation and maintenance expense of the Avoided Unit;   | 2.50%                                      |
| r                | = | annual discount rate, defined as DEF's incremental after-tax cost of capital;   | 6. <u>85<del>92</del>%</u>                 |
| L                | = | expected life of the Avoided Unit;  | 35   |
| n                | = | year for which the Avoided Unit is deferred starting with the Avoided Unit In-Service Date and ending with the Termination Date.  | 2024                                       |



SECTION No. IX TENTH <u>FLEVENTH</u> REVISED SHEET NO. 9.468 CANCELS HINTH-TENTH REVISED SHEET NO. 9.468

#### FIXED VALUE OF DEFERRAL PAYMENTS -EARLY CAPACITY OPTION PARAMETERS

| Am         | = | monthly avoided capital cost component of Capacity Payments to<br>be made to the RF/QF starting as early as two years prior to the<br>Avoided Unit In-Service Date, in dollars per kilowatt per month;   | 3. <u>13</u> 54             |
|------------|---|--|-----------------------------|
| <b>i</b> p | = | annual escalation rate associated with the plant cost of the Avoided Unit;   | 2.50%                       |
| n          | = | year for which early Capacity Payments to a RF/QF are to begin;  | 2022                        |
| F          | = | the cumulative present value of the avoided capital cost component of Capacity Payments which would have been made had Capacity Payments commenced with the anticipated inservice date of the Avoided Unit and continued for a period of 10 years;                               | 304.22 <u>276.</u><br>38    |
| ť          | = | annual discount rate, defined as DEFs incremental after-tax cost of capital;   | 6. <u>85<del>92</del></u> % |
| t          | = | the Term, in years, of the Contract for the purchase of firm capacity commencing prior to the in-service date of the Avoided Unit;   | <del>1</del> 4 <u>13</u>    |
| G          | = | the cumulative present value of the avoided fixed operation and maintenance expense component of Capacity Payments which would have been made had Capacity Payments commenced with the anticipated in-service date of the Avoided Unit and continued until the Termination Date. | 2 <u>0</u> 4.80             |

# **EXHIBIT C ECONOMIC / FINANCIAL ASSUMPTIONS** and K FACTOR DUKE ENERGY FLORIDA

Attachment A Page 42 of 78

Docket No. 170072-EQ Date: June 29, 2017

#### Duke Energy Florida Renewable Standard Offer Contract Economic Assumptions

CAPITALIZATION RATIOS DISCOUNT RATE

Debt 47.0% 6.85%

Preferred 0.0% Equity 53.0%

RATE OF RETURN BOOK DEPRECIATION LIFE

Debt 4.20% 35 Years

Preferred 0.00%
Equity 10.50%

INCOME TAX RATE TAX DEPRECIATION LIFE

Effective 35.26% 15 Years

OTHER TAXES AND INS.

0.99%

#### Duke Energy Florida Renewable Standard Offer Contract Unit Information

PLANT TYPE:

Combustion Turbine Facility

**NET CAPACITY:** 

228 MW

**BOOK LIFE:** 

35 Years

#### **INTALLED COST (IN-SERVICE YEAR 2024)**

| TOTAL INSTALLED COST (\$/KW)            | 697.27 |
|---|--------|
| DIRECT CONSTRUCTION COST (\$/KW) (2017) | 569.14 |
| AFUDC AMOUNT (\$/KW)                    | 30.60  |
| ESCALATION                              | 97.53  |
| FIXED O & M (\$/KW-YR)<br>(2017)        | 3.08   |
| VARIABLE O & M (\$/KWH)<br>(2017)       | 9.51   |
| K FACTOR                                | 1.317  |

| <u><b>EXH</b></u>                                    | <u>IBIT E</u> |
|--|---------------|
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|  |               |
|  |               |
|  |               |
| AMENDED INTERCONNECTION AGREEMENT (Legislative copy) |               |
| - wa   | -             |
| Tariff Sheets:<br>9.700 through 9.717                |               |
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| DUKE ENERGY FLORIDA                                  |               |



SECTION No. IX FIRST-SECOND REVISED SHEET No. 9.700 CANCELS FIRST REVISED SHEET No. 9.700

#### INTERCONNECTION AGREEMENT

#### INTERCONNECTION ARRANGEMENTS AND COST RESPONSIBILITY

#### 1.0 1.0 Purpose

1.1. This Interconnection Agreement ("Agreement") sets forth the terms and conditions pursuant to which ("QF") has agreed to comply with and pay Duke Energy Florida, LLC ("Company") to interconnect with Company's electrical system. -This Agreement provides the procedures for the scheduling of construction for the Company's Interconnection Facilities as well as the cost responsibility of a QF Facility for the payment of Interconnection Costs. This Agreement also provides for operating, testing, and inspection procedures for the safe parallel operation of the Facility with the Company's electrical system. This Agreement applies to QF's directly interconnected with the Company's system and providing all net electrical output for sale to the Company. All requirements contained herein shall apply in addition to and not in lieu of the provisions of the Power Purchase Agreement.

#### 2.0 2.0 Definitions

- 2.1. 2.1 "Agreement" means this Interconnection Agreement.
- 2.2. 2.1 "Company" means Duke Energy Florida, LLC.
- 2.3. 2.2 "Company's Interconnection Facilities" means all equipment located on the Company's side of the Point of Delivery, including without limitation, equipment for connection, switching, transmission, distribution, protective relaying and safety



SECTION No. IX FIRST-SECOND REVISED SHEET No. 9.700 CANCELS FIRST REVISED SHEET No. 9.700

provisions which in the Company's sole discretion are required to be installed for the delivery into the Company's system, measurement of electric energy injected into the Company's system, and upgrades to the Company's electrical system required for the Company to receive, use, and deliver the energy to Company's load, including all metering and telemetering equipment installed for the measurement of such energy delivered by the Facility, regardless of the Facility's location in relation to the Point of Delivery.

2.4. 2.3 "Default" means the failure of a breaching Party to cure its breach under this Agreement.



SECTION No. IX FIRST-SECOND REVISED SHEET No. 9.701 CANCELS <u>FIRST REVISED</u> SHEET No. 9.701

- 2.5. 2.4—"Emergency Condition" means (a) any urgent, abnormal, operationally unstable, dangerous, and/or public safety condition that is existing on the Company's system; (b) any urgent, abnormal, operationally unstable, dangerous, and/or public safety condition that is likely to result in any of the following: (i) loss or damage to the Facility and/or the Company's system, (ii) disruption of generation by the Facility, (iii) disruption of service or stability on the Company's system, and/or (iv) endangerment to human life or public safety; and/or, (c) any circumstance that requires action by the Company's System Operator to comply with standing NERC regulations or standards, including without limitation actions to respond to, prevent, limit, or manage loss or damage to the Facility, loss or damage to the Company's system, disruption of generation by the Facility, disruption of service on the Company's system, an abnormal condition on the Company's system, and/or endangerment to human life or safety. An Emergency Condition will be an excuse to QF's performance only if such condition is not due to QF's negligence, willful misconduct, and/or failure to perform as required under this Agreement.
- 2.5 "Execution Date" means the date on which the Company Parties executes this Agreement.
- 2.7. 2.6—"Facility" means all equipment used to produce electrical output- and, for a cogeneration facility, used to produce useful thermal energy through the sequential use of energy.
- 2.8. 2.7—"Facilities Study" means a written cost estimate of all the required materials and labor to complete the interconnection of the Facility with the Company's electrical system, and an estimate of the date by which construction of the interconnection will be completed.
- 2.9. 2.8—"Feasibility Study" means a review of the alternatives and operational requirements reasonably available to interconnect the Facility to the Company's electric system and identification of a feasible interconnection alternative.
- 2.10.2.9 "Indemnified Party" has the meaning assigned to it in Section 12.1.
- 2.11.2.10 "Indemnifying Party" has the meaning assigned to it in Section 12.2.

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Docket No. 170072-EQ Date: June 29, 2017



SECTION No. IX FIRST-SECOND REVISED SHEET No. 9.701 CANCELS <u>FIRST REVISED</u> SHEET No. 9.701

2.12.2.11—"Interconnection Costs" means the actual costs incurred by the Company under this Agreement and for the Company's Interconnection Facilities, including, without limitation, the cost of equipment, engineering, communication, labor, and operations, maintenance, and administrative activities.



SECTION No. IX FIRST-SECOND REVISED SHEET No. 9.702 CANCELS FIRST REVISED SHEET No. 9.702

- 2.13.2.12 "Interconnection Costs Offset" means the estimated costs included in the Interconnection Costs that the Company would have incurred if it were not purchasing electric energy from the Facility but instead would have provided electrical service to the Facility as if it were a non-generating customers.
- 2.14.2.13—"Interconnection Request Application" means a form used to provide the Company with the information required to study an interconnection request.
- 2.15.2.14 "Part(y)(ies)" means the Company or/and the QF.
- 2.16. 2.15—"Point of Delivery" means the point(s) on the Company's side of the electrical system where electric energy generated exclusively by the Facility is delivered into the Company system pursuant to this Agreement.
- 2.17.2.16—"Point of Metering" means the point(s) where electric energy made available for delivery to the Company, subject to adjustment for losses to the Point of Delivery that are the sole responsibility of the QF, is measured.
- 2.18.2.17—"Power Purchase Agreement" means either the (i) Agreement for Purchase of As-Available Energy, (ii) the Standard Offer Contract for the Purchase of Firm Capacity and Energy from a Renewable Energy Producer or a Qualifying Facility less than 100 kW or (iii) a negotiated contract based upon (i) or (ii).
- 2.19.2.18—"Qualifying Facility" or "QF" means a facility that meets the requirements defined in FPSC Rule 25-17.080. For the purposes of this Agreement only, a Distributed Resource as defined in the Institute of Electrical and Electronics Engineers ("IEEE") Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems, as they may be amended from time to time, will be deemed to be a QF, consistent 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.
- 2.20, 2.19 "OF Insurance" has the meaning assigned to it in Section 13.1.



SECTION No. IX FIRST-SECOND REVISED SHEET No. 9.702 CANCELS <u>FIRST REVISED</u> SHEET No. 9.702

2.21.2.20—"System Impact Study" means a preliminary written cost estimate of all the Company's Interconnection Facilities, including without limitation, required materials and labor to complete the interconnection and a preliminary estimate of the date by which construction of the interconnection will be completed.



SECTION No. IX SEGOND-THIRD REVISED SHEET No. 9,703 CANCELS SECOND REVISED SHEET No. 9,703

3.0 3.0 - Submission of Plans and Development of Interconnection Schedules and Cost Estimates

- 3.1. 3.1—No later than sixty (60) days after the Execution Date, the QF shall specify the date it desires the Company's Interconnection Facilities to be available for receipt of the electric energy and shall complete and submit, along with a deposit to cover Company's costs to perform interconnection studies, an Interconnection Request Application, to the Company. At such time, the QF shall deliver to the Company the Facility's preliminary design, engineering, and operational specifications for purposes of interconnecting with Company's system. Based upon the information provided, the Company shall consider the reasonable alternatives available to interconnect the QF in a Feasibility Study within sixty (60) days after all information requested by the Company is provided by the OF.
- 3.2. The OF shall, within thirty (30) days from receipt of the Feasibility Study, send written notification to the Company as to whether or not it will continue the Facility to the next study phase. The Company will consider no response as OF's withdrawal of the Facility from further consideration. No more than thirty (30) days following receipt of such notice, The the Company and the QF shall meet and discuss interconnection alternatives and the QF's reasonable preference for interconnecting the Facility to the Company's electrical system. Once the QF has communicated a reasonable-interconnection preference, the Company shall develop in a System Impact Study preliminary written Interconnection Costs and scheduling estimates for the Company's Interconnection Facilities within sixty (60) days after all information requested by the Company is provided by the QF. The schedule developed hereunder will indicate when the QF's final electrical plans must be submitted to the Company pursuant to section Section 3.2.3 hereof.
- 3.3. The OF shall, within thirty (30) days from receipt of the System Impact Study, send written notification to the Company as to whether or not it will continue the Facility to the next study phase. The Company will consider no response as OF's withdrawal of the Facility from further consideration. The Along with such notification, the QF shall submit the Facility's final design, engineering, and operational specifications and all revisions to the information previously submitted under section 3.1 hereof to the Company no later than the date specified pursuant to the last sentence of Section 3.1 hereof, unless such date is modified in the Company's sole discretion. Based upon the information provided and within sixty (60) days after the information is provided, the Company shall update its written Interconnection Costs and schedule estimates, provide the estimated time period required for construction of the Company's Interconnection Facilities, and specify the date by which the Company must receive notice from the QF

ISSUED BY: Jaylor Portuondo, Director, Rates & Regulatory Strategy - FL EFFECTIVE: October 11, 2018

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Docket No. 170072-EQ Date: June 29, 2017



SECTION No. DK SECOND-THIRD REVISED SHEET No. 9.703 CANCELS <u>SECOND</u> REVISED SHEET No. 9.703

to initiate construction, which date shall, to the extent practical, be consistent with the QF's schedule for delivery of energy into the Company's system in a Facilities Study.

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Docket No. 170072-EQ Date: June 29, 2017



SECTION No. IX SECOND-THIRD REVISED SHEET No. 9,703704 CANCELS FIRST-SECOND REVISED SHEET

The OF shall, within one hundred eighty (180) days from receipt of the Facilities Study, send written notification to the Company as to whether or not it will initiate construction of the Facility. The Company will consider no response as OF's withdrawal of the Facility from further consideration. The final electrical plans shall include the following information, unless all or a portion of such information is waived by the Company in its discretion:

| a. a. Physical layout drawings, including dimensions;   |
|---|
| <ul> <li>b. b. — All associated equipment specifications and characteristics including<br/>technical parameters, ratings, basic impulse levels, electrical main one-line<br/>diagrams, schematic diagrams, system protections, frequency, voltage, current<br/>and interconnection distance;</li> </ul> |
| c. e. —Functional and logic diagrams, control and meter diagrams, conductor sizes and length, and any other relevant data which might be necessary to understand the Facility's proposed system and to be able to make a coordinated system;  |
| dd.—Power requirements in watts and vars;   |
| e. e. Expected radio-noise, harmonic generation and telephone interference factor;  |
| <u>f.</u> f.——Synchronizing methods;  |
| gg.——Facility operating/instruction manuals; and  |
| h. h. The maximum amount of energy anticipated to be delivered to the Company.  |
| ISSUED BY: Jayler Portuondo, Director, Rates & Regulatory Strategy - FL.  EFFECTIVE: Gotober-11, 2016   |



SECTION No. IX SECOND-THIRD REVISED SHEET No. 8.703704 CANCELS FIRST-SECOND\_REVISED SHEET

The final design specification documents delivered by the QF shall be labeled as "FINAL", and shall be signed, sealed, and dated by a licensed Florida Professional Engineer for purposes of establishing the final design submitted by the QF based on which Company will determine impacts to its system and construct interconnection facilities for the QF to interconnect with the system.

3.4. 3.3—Any subsequent change in the final electrical plans shall be submitted to the Company and the QF understands and agrees that any such changes could affect the Company's schedules and interconnection Costs as previously estimated. The QF understands that any changes in system design after the "FINAL" design is submitted shall be deemed as material or significant design changes by the QF and may result in Company terminating this Agreement and re-starting the interconnection process, as may be determined by the Company in its sole discretion. The QF shall be responsible for all costs incurred by Company as a result of any modifications to the "FINAL" design.

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Docket No. 170072-EQ Date: June 29, 2017



SECTION No. IX SECOND-THIRD REVISED SHEET No. 9,793706 CANCELS FIRST—SECOND\_REVISED SHEET

- 3.5. 2.4—Without limiting the QF's responsibility to pay for all costs under this Agreement, the QF understands and agrees that the QF shall pay the actual costs incurred by the Company to develop all estimates pursuant to section-Sections 3.1 and through 3.2-3 hereof and to evaluate any changes proposed by the QF as a result of the final design specifications. At the Company's option, advance payment for these cost estimates may be required, in which event the The Company will issue an adjusted bill reflecting actual costs following completion of the cost estimates.
- 3.6. 3.5 The Parties agree that any cost or scheduling estimates provided by the Company hereunder shall be prepared in good faith but shall not be binding. The Company may modify such schedules as necessary to accommodate contingencies that affect the Company's ability to initiate or complete the Company's Interconnection Facilities and actual costs will be used as the basis for all final charges hereunder.
- 3.7. 3.6—All studies required for interconnection and the construction of any interconnection facilities required shall be placed in the queue in a non-discriminatory and non-preferential manner relative to any other interconnection requests so that Company can process all interconnection requests to the Company's system in accordance with the Company's current practices and operational procedures.
- 3.8. The Company reserves the right to perform static and dynamic tests, incorporating the Facility in the Company's models, that may limit/reduce the amount of physical capacity that OF can interconnect at Facility. In such case, the Company will report the limitation to the OF who may then decide to adjust its capacity level for the next level of study.
- 3.9. The Company will consider failure by the OF to meet any of the schedule deadlines herein as a withdrawal of the Facility from further consideration.

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SECTION No. IX SECOND-THIRD REVISED SHEET No. 9.705706 CANCELS FIRST—SECOND REVISED SHEET

4.0 4.0 Payment Obligations for Interconnection Costs.

- 4.1. 4.1. The Company shall have no obligation to initiate construction of the Company's Interconnection Facilities prior to a written notice from the QF agreeing to the Company's interconnection design requirements and notifying the Company to initiate its activities to construct the Company's Interconnection Facilities; provided, however, that such notice shall be received not later than the date specified by the Company under Section 3.2 hereof. The QF shall be liable for and agrees to pay all Interconnection Costs incurred by the Company.
- 4.2. 4.2. The QF agrees to pay all of the Company's actual Interconnection Costs as such costs are incurred and billed in accordance with the Power Purchase Agreement, if applicable.— Such amounts shall be billed pursuant to section-Section 4.2.1 if the QF elects the payment option permitted by FPSC Rule 25-17.087(3). Otherwise the QF shall be billed pursuant to section-Section 4.2.2. If the QF does not have a Power Purchase Agreement for the Facility, then the QF agrees to pay the amounts billed by Company within thirty (30) days after Company notifies the QF that such interconnection work has been completed.
  - 4.2.1. 4.2.1—Upon a showing of credit worthiness, the QF shall have the option of making monthly installment payments for Interconnection Costs over a period no longer than thirty\_six (36) months. The period selected is \_\_\_\_\_\_ months. Principal payments will be based on the estimated Interconnection Costs less the Interconnection Costs Offset, divided by the repayment period in months to determine the monthly principal payment. Payments will be invoiced in the first month following first incurrence of Interconnection Costs by the Company. Invoices to the QF will include principal payments plus interest on the unpaid balance, if any, calculated at a rate equal to the thirty (30) day highest grade commercial paper rate as published in the Wall Street Journal on the first business day of each month. The final payment or payments will be adjusted to cause the sum of principal payments to equal the actual Interconnection Costs.
  - 4.2.2. 4.2.2—When Interconnection Costs are incurred by the Company, such costs will be billed to the QF to the extent that they exceed the Interconnection Costs Offset.

    The QF agrees to provide, at least <u>fifteen (15)</u> calendar days before the initiation of interconnection field work, cash or a letter of credit as adequate assurances, in a form acceptable to Company in its sole discretion, to cover the estimated Interconnection Costs.

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SECTION No. IX SECOND-THIRD REVISED SHEET No. 9,796708 CANCELS FIRST\_SECOND\_REVISED SHEET

No. 9.708

4.3. 4.3 — If the QF notifies the Company in writing to interrupt or cease interconnection work at any time and for any reason, the QF shall nonetheless be obligated to pay the Company for all costs incurred in connection with the Company's Interconnection Facilities through the date of such notification and for all additional costs for which the Company is responsible pursuant to binding contracts with third parties.

tSSUED BY: Javier Pertuondo, Director, Rates & Regulatory Strategy - FL EFFECTIVE: Getober 44, 2018

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SECTION No. IX
SECOND-THIRD REVISED SHEET No. 9.7067
CANCELS FIRST-SECOND REVISED SHEET

- 5.0 5.0 Payment Obligation for Operation, Maintenance and Repair of the Company's Interconnection Facilities-
  - 5.1. The QF shall be billed monthly for the costs associated with the operation, maintenance, and repair of the interconnection. These include (a) the Company's inspections of the interconnection and (b) maintenance of any equipment beyond that which would be required to provide normal electric service to the Qualifying Facility if no sales to the Company were involved.
  - 5.2. The QF shall pay a monthly charge equal to 0.50% of the Interconnection Costs less the Interconnection Costs Offset.

#### 6.0 6.0 Schematic Diagram

6.1. Exhibit B-1, attached hereto and made a part hereof, is a schematic diagram showing the major circuit components connecting the Facility and with the Company's [substation]electrical system and showing the Point of Delivery and the Point of Metering and/or Point of Ownership, if different. All switch number designations initially left blank on Exhibit B-1 will be inserted by the Company on or before the date on which the Facility first operates in parallel with the Company's system.

#### 7.0 7.0 Operating Standards

- 7.1. 7.1 The QF and the Company will independently provide for the safe operation of their respective facilities, including periods during which the other Party's facilities are unexpectedly energized or de-energized.
- 7.2. 7.2 The QF shall reduce, curtail, or interrupt electrical generation or take other appropriate action for so long as it is reasonably necessary, which in the judgment of the QF or the Company may be necessary to operate and maintain a part of either Party's system, to address, if applicable, an Emergency Condition on either Party's system. The QF shall also reduce, curtail, or interrupt electrical generation during the situations defined in Rule 25-17.086. F.A.C.



SECTION NO. IX SECOND\_THIRD REVISED SHEET No. 9.7087 CANCELS FIRST\_SECOND\_REVISED SHEET

7.3. 7.3 The operation and net energy deliveries to the Company from the QF shall not exceed the amount studied and approved by the Company's pursuant to the studies performed under this Agreement.



|     | UKE<br>NERGY.<br>10. 9.708  |  | SECTION No. IX<br>SECOND-THIRD REVISED SHEET No. 9,7079<br>CANCELS FIRST SECOND REVISED SHEET  |  |
|-----|---|--|--|--|
| 7.4 | <del>'.4—The</del> QF shall vith the Company's  | s system without prior written on the crime system without prior written systems.  | tric generation equipment in parallel consent of the Company. Such consent teria under the Power Purchase  |  |
| ļ   | (i) subm<br>electrical spe  |  | from the Company of its as-built   |  |
| !   |   |  | isfaction that the Facility is in<br>ts of the Power Purchase Agreement, if  |  |
|     | compliance regulatory at  |  | isfaction that the Facility is in<br>ers, or decisions of any governmental or<br>er the Facility's generating equipment  |  |
| ;   | submitted to the Co<br>modifications may<br>interconnections co<br>such costs shall be<br>modifications are c<br>Company's system | ompany for approval. It is furth<br>require new interconnection so<br>ests along with other costs deta<br>the sole responsibility of the Completed, the QF shall not res | cal equipment of the Facility will be ther understood that the scope of some tudies that will result in additional ailed in Section 5 of the Agreement, and QF. After any approved Facility sume parallel operation with the I that it is in compliance with all the |  |
|     | equipment with the  | e Company's electrical system,<br>occur from improper coordinati   | on and synchronization of the Facility's<br>and assumes all responsibility for<br>ion or synchronization of the generator  |  |
|     | manual disconnect system without pri-   | switch numbers(s) or notice to the QF. To the ex   | and lock, with a Company padlock, and isolate the Facility's generation tent practicable, however, prior notice shall be cause for disconnection:  |  |



SECTION No. IX
SECOND-THIRD REVISED SHEET No. 9.7078
CANCELS FIRST—SECOND REVISED SHEET

1. 1. Emergency Conditions and/or maintenance repair and construction requirements;

2. 2. hazardous conditions existing on the Facility's generating or protective equipment as determined by the Company;

3. 3. adverse effects of the Facility's generation to the Company's other electric consumers and/or system as determined by the Company;

4. 4. failure of the QF to maintain any required insurance; or



SECTION No. DX SECTION NO. IX SECOND-THIRD\_REVISED SHEET No. 9.7089 CANCELS FIRST—SECOND\_REVISED SHEET -failure of the OF to comply with any existing or future regulations, rules, orders or decisions of any governmental or regulatory authority having jurisdiction over the Facility's electric generating equipment or the operation of such equipment. 7.8. 7.8 The Facility's electric generation equipment shall not be operated in parallel with the Company's system when auxiliary power is being provided from a source other than the Facility's electric generation equipment. 7.9. Neither Party shall operate switching devices owned by the other Party, except that the Company may open the manual disconnect switch number(s) by the QF pursuant to section-Section 7.7 hereof. 7.10.7:10—Should one Party desire to change the operating position of a switching device owned by the other Party, the following procedures shall be followed: (i) The Party requesting the switching change shall orally agree with an authorized representative of the other Party regarding which switch or switches are to be operated, the requested position of each switching device, and when each switch is to be operated. (ii)—The Party performing the requested switching shall notify the requesting Party when the requested switching change has been completed. (iii) (iii) Neither Party shall rely solely on the other party's switching device to provide electrical isolation necessary for personnel safety. Each Party will perform work on its side of the Point of Ownership as if its facilities are energized or test for voltage and install grounds prior to beginning work. (iv) Each Party shall be responsible for returning its facilities to approved operating conditions, including removal of grounds, prior to the Company authorizing the restoration of parallel operation.

ISSUED BY: EFFECTIVE: Javier Portuondo, Director, Rates & Regulatory Strategy - FL October 41, 2016



| ENER<br>No. 9.70                        | E SECTION NO. IX SECOND-IMIRD REVISED SHEET CANCELS FIRST_SECOND_REVI  | No. 9.7089<br>ISED SKEET |
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|   |  | ches.<br>ihall           |
| mainte<br>shall b<br>th <del>e</del> QF | —Should any essential protective equipment fail or be removed from serv tenance or construction requirements, the Facility's electric generation equipment fail or be removed from service and the Company's system. To accomplish this disconstant of the generator breaker number(s); or (ii) open the generator breaker number(s); or (ii) open disconnect switch number(s) | uipment .<br>nection,    |
|   |  | •                        |
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| EFFECTIVE:                              | : Javier Portuondo, Director, Rates & Rogulatory Stratogy - FL<br>: Getober 44, 3016   |                          |

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Docket No. 170072-EQ Date: June 29, 2017



SECTION No. IX SEGOND<u>THIRD</u> REVISED SHEET No. 9.799<u>710</u> CANCELS FIRST—<u>SECOND</u> REVISED SHEET

7.11.1. 7.11.1 If the QF elects option (i), the breaker assembly shall be opened and drawn out by QF personnel. As promptly as practicable, Company personnel shall install a Company padlock and a red tag on the breaker enclosure door.

7.11.2 If the QF elects option (ii), the switch shall be opened by QF personnel or by Company personnel and, as promptly as practicable, Company personnel will install a Company padlock and a red tag.

#### 8.0 8.0 Inspection and Testing

- 8.1.—The inspection and testing of all electrical relays governing the operation of the generator's circuit breaker shall be performed in accordance with manufacturer's recommendations, but in no case less than once every 12 months. This inspection and testing shall include, but not be limited to, the following:
  - (i) (i) electrical checks on all relays and verification of settings electrically;
  - (ii) (ii) cleaning of all contacts;
  - (iii) \_\_complete testing of tripping mechanisms for correct operating sequence and proper time intervals; and
  - (iv) (iv) visual inspection of the general condition of the relays.
- 8.2.—In the event that any essential relay or protective equipment is found to be inoperative or in need of repair, the QF shall notify the Company of the problem and cease parallel operation of the generator until repairs or replacements have been made. The QF shall be responsible for maintaining records of all inspections and repairs and shall make said records available to the Company upon request.



SECTION No. IX
SECOND-THIRD REVISED SHEET No. 9.799710
CANCELS FIRST-SECOND REVISED SHEET

No. 9.710

8.3. 8.3 — The Company shall have the right to operate and test any of the Facility's protective equipment to assure accuracy and proper operation. This testing shall not relieve the QF of the responsibility to assure proper operation of its equipment and to perform routine maintenance and testing.

Docket No. 170072-EQ Date: June 29, 2017



SECTION No. IX FIRST-SECOND REVISED SHEET No. 9.7119 CANCELS ORIGINAL-FIRST REVISED SHEET

9.1. 9.1 Communications made for emergency or operational reasons may be made to the following persons and shall thereafter be confirmed promptly in writing:

To The Company: System Dispatcher on Duty

|   | Title: Sys               | tem Dispatcher |  |  |  |  |
|---|--------------------------|----------------|--|--|--|--|
|   | Telephone:               | (727) 384-7211 |  |  |  |  |
|   | Facsimile:               | (727) 384-7865 |  |  |  |  |
|   |                          |                |  |  |  |  |
|   | To The OF:               |                |  |  |  |  |
|   | Title:                   |                |  |  |  |  |
|   | <u>Telephone:</u> _      |                |  |  |  |  |
|   | Facsimile:               |                |  |  |  |  |
|   |                          |                |  |  |  |  |
| Fo The Company:- <u>System Dispatcher on Duty</u> |                          |                |  |  |  |  |
| <del>Fitle: <u>System Dispatcher</u></del>        |                          |                |  |  |  |  |
| <del>Telephone: <u>(727)</u>384-7211</del>        |                          |                |  |  |  |  |
| <del>Telecopier: <u>(727)</u>3</del>              | <del>84 7865</del> 0 The | QF: Name:      |  |  |  |  |
| Title:  |                          |                |  |  |  |  |
| Telephone:  |                          |                |  |  |  |  |
| Telecopier:                                       |                          |                |  |  |  |  |

- 9.2. 9.2 Each Party shall provide as much notification as practicable to the other Party regarding planned outages of equipment that may affect the other Party's operation.
- 9.3. Communication for contract administrative purposes may be made to the following persons:

To The Company:

Title: Wholesale/Renewable Manager
Address: 299 First Avenue North
Mail Code FL-155
St Petersburg, FL 33701

ISSUED BY: Javier Portuondo, Director, Rates & Regulatory Strategy - FL EFFECTIVE: October-11, 2016 Docket No. 170072-EQ Attachment A
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| DUKE<br>ENERGY.<br>No. 9.7110                  | SECTION No. DX<br>FIRST- <u>SECOND</u> REVISED SHEET No. 9.7110<br>CANCELS GRIGMAL- <u>FIRST REVISED</u> SHEET |                                |       |  |
|--|--|--------------------------------|-------|--|
|  | Telephone:   | (727) 820-459<br>(727) 820-459 |       |  |
|  | To The OF: Title: Address:   |                                |       |  |
|  | Telephone:<br>Facsimile:   |                                |       |  |
|  |  | •                              |       |  |
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| ISSUED BY: Javier Por<br>EFFECTIVE: October 44 | tuondo, Director, Rate   | s & Regulatory Strates         | ry-FL |  |

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SECTION No. IX
FIRST-SECOND REVISED SHEET No. 9.749712
CANCELS ORIGINAL-FIRST REVISED SHEET

10.0 10.0 Standards

10.1. Interconnection with, and delivery into, the Company's system must be accomplished in accordance with the provisions of FPSC Rule 25-17.087. Additionally, as provided in FPSC Order No. PSC-06-0707-PAA-EI, issued August 18, 2006, in Docket No. 060410-EI, for a QF that is a Distributed Resource, the QF's interconnection with the Company's system must be accomplished in accordance with the provisions of the IEEE Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems that is in effect at the time of construction.

10.2.10.1—The following minimum guidelines shall also be met:

- a. a. The governor control on the prime mover shall be capable of maintaining the generator output frequency within limits for loads from no-load up to rated output. The limits for frequency shall be 60 hertz (cycles per second), plus or minus an instantaneous variation of less than 1%.
- c. e. The output sine wave distortion shall be deemed acceptable when it does not have a higher content (root mean squared) of harmonics than the Company's normal harmonic content at the interconnection point.
- d. d.—The QF's generating equipment shall be designed, operated, and controlled to provide reactive power requirements from 0.95 lagging to 0.95 leading power factor at the point of interconnection with the Company. Induction generators shall have static capacitors that provide at least 95% of the magnetizing current requirements of the induction generator field. Capacitors shall not be so large as to permit self-excitation of the QF's generator field.

ISSUED BY: Javier Portuondo, Director, Rates & Regulatory Strategy - FL EFFECTIVE: October 11, 2018

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DUKE
ENERGY.

No. 9.749712

e. — Direct current (DC) generators may be operated in parallel with the Company's

everteen through a synchronous invertor. The inverter must meet all the criteria in

ISSUED BY: Javier Portuondo, Director, Rates & Regulatory Strategy - FL EFFECTIVE: October 44, 2016

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SECTION No. IX ORIGINAL FIRST REVISED SHEET No.

CANCELS ORIGINAL SHEET No. 9.713

11.0 11.0 QF Standing and Qualification

(corporation, partnership, or other, as applicable) duly 11.1. The QF is a organized and validly existing in good standing under the laws of and has all necessary power and authority to carry on its business as presently conducted to own or hold under lease its properties and to enter into and perform its obligations under this Agreement and all other related documents and agreements to which it is or shall be a Party. OF is duly qualified or licensed to do business in the State of Florida and in all other jurisdictions wherein the nature of its business and operations or the character of the properties owned or leased by it makes such qualification or licensing necessary and where the failure to be so qualified or licensed would impair its ability to perform its obligations under this Agreement or would result in a liability to Company or would have any adverse effect on Company.

12.0 12. Insurance

- 12.1.12.1—The QF shall procure or cause to be procured and shall maintain throughout the entire Term of this Agreement, a policy or policies of liability insurance issued by an insurer acceptable in the state of Florida on a standard "Insurance Services Office" commercial general liability and/or excess liability form or equivalent and Workers' Compensation in accordance with the statutory requirements of the state of Florida (such policy or policies, collectively, the "QF Insurance"). A certificate of insurance shall be delivered to the Company at least fifteen (15) calendar days prior to the start of any interconnection work. At a minimum, the QF Insurance shall contain (a) an endorsement providing coverage, including products liability/completed operations coverage for the term of this Agreement, and (b) premises and operations liability, (c) a broad form contractual liability endorsement covering liabilities (i) which might arise under, or in the performance or nonperformance of, this Agreement or (ii) caused by operation of the Facility or any of the QF's equipment Without limiting the foregoing, the QF Insurance must be reasonably acceptable to the Company. Any premium assessment or deductible shall be for the account of the QF and not the Company.
- 12.2. 12.2 The QF Insurance for liability shall have a minimum limit of one million dollars (\$1,000,000.00) per occurrence for bodily injury (including death) or property damage. This liability limit can be met by any combination of commercial general and excess liability insurance policies.
- 12.3. 12.3 To the extent that the QF Insurance is on a "claims made" basis, the retroactive date of the policy(ies) shall be the Effective Date of this Agreement or an earlier date. Furthermore, to the extent the QF Insurance is on a "claims made" basis, the QF's duty

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to provide insurance coverage shall survive the termination of this Agreement until the expiration of the maximum statutory period of limitations in the State of Florida for actions based in contract or in tort. To the extent the QF Insurance is on an "occurrence" basis, such insurance shall be maintained in effect at all times by the QF during the term of this Agreement.

ISSUED BY: Javier Portuondo, Director, Rates & Regulatory Strategy - FL EFFECTIVE: Getober44, 2016

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12.4.12.4 The QF shall provide the Company with a copy of any material communication or notice related to the QF Insurance within ten (10) Business Days of the QF's receipt or issuance thereof.

12.5. 12.5—The Company shall be designated as an additional named insured under the QF Insurance (except Workers' Compensation). The QF Insurance shall be primary to any coverage maintained by the Company and provide, where permitted by law, waiver of any rights of subrogation against the Company. Any deductibles or retentions shall be the sole responsibility of QF. QF's compliance with these provisions and the limits of insurance specified herein shall not constitute a limitation of QF's liability or otherwise affect QF's indemnification obligations pursuant to this Agreement. Any failure to comply with all of these provisions shall not be deemed a waiver of any rights of the Company under this Agreement with respect to any insurance coverage required hereunder. The Company may request the QF to provide a copy of any or all of its required insurance policies, including endorsements in which the Company is included as an additional insured for any claims filed relative to this Agreement.

## 13.0 13. Event of Default

13.1.13.1—Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in Section 13.2, the defaulting Party shall have five (5) Business Days from receipt of the Default notice within which to cure such Default.

13.2.13.2—If a Default is not cured as provided in this Section, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this section-Section will survive termination of this Agreement.

ISSUED BY: Javier Portuendo, Director, Rates & Regulatory Strategy - FL EFFECTIVE: October 41, 2046

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#### 14.0 14. Termination

14.1. This Agreement shall terminate upon any of the following events:

- (a) at the time when the nature of the QF's service changes in such a way as to alter the manner in which the QF delivers power to the Company; or
- (b) pursuant to the procedure set forth in Section 13.2; or
- (c) as set forth in Section 3.3; or
- (d) termination of the Power Purchase Agreement; or
- (e) upon 30 days' notice by the QF to the Company.

#### 15.0 15. Assignment

15.1.——Any assignment by QF of this Agreement and the rights and obligations hereunder shall be made only with the written consent of the Company, which consent shall not be unreasonably withheld and shall be subject to credit, payment, tax, and performance assurances.

# 16.0 16. Governing Law and Jurisdiction-

16.1. This Agreement and the rights and duties hereunder shall be governed by and construed, enforced and performed in accordance with the Laws of the State of Florida, without regard to principles of conflicts of law.

# 17.0 17. Mutual Representations

17.1. QF and Company each hereby represents and warrants to the other the following: (i) each has the capacity, authority, and power to execute, deliver, and perform under this

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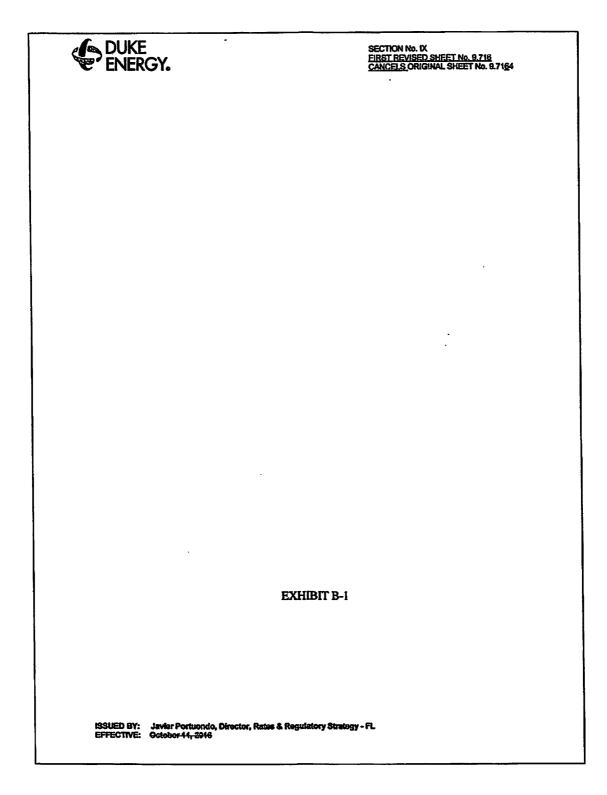
Agreement; (ii) this Agreement constitutes legal, valid, and binding obligations enforceable against it; (iii) each person who executes this Agreement on behalf of each party has full and complete authority to execute and bind such party to this Agreement as an authorized representative of such party; (iv) each is acting on its own behalf and has made its own independent decision to bind itself under this Agreement; and, (v) each has completely read, fully understands, and voluntarily accepts every provision of this Agreement.

## 18.0 18. Entire Agreement

18.1. This Agreement constitutes the entire agreement and arrangement between the QF and Company relating to the subject matter herein. This Agreement shall not be binding and effective unless duly executed by an authorized officer of QF and delivered by QF to Company, and upon receipt of such duly executed document is executed by Company and delivered by Company to QF.

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SECTION No. IX FIRST REVISED SHEET No. 9.718 CANCELS ORIGINAL SHEET No. 9.7184

Exhibit B-1 will be unique for each Facility and must be complete prior to parallel operation with the Company

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| DUKE ENERGY.   | SECTION NO. IX<br>FIRST REVISED SHEET NO. 9.717<br>CANCELS ORIGINAL SHEET NO. 9.7176 |
|--|--|
| IN WITNESS WHEREOF, the QF has execute   | ed this Agreement on the date set forth below.                                       |
| <u>of</u>  |  |
| <u>Signature</u>   | <del>_</del>   |
| Print Name   | _  |
| <u>Title</u>   |  |
| Date   | _  |
| IN WITNESS WHEREOF, the Company Agreement.   | has acknowledged receipt of this executed  |
| DUKE ENERGY FLORIDA, LLC.  |  |
| Signature  |  |
| Print Name   |  |
| Title  |  |
| ISSUED BY: Javier Portuondo, Director, Rates & Regulate<br>EFFECTIVE: October 44, 2016 | ory Stratogy - FL  |

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