FILED 5/23/2018 **DOCUMENT NO. 03819-2018 FPSC - COMMISSION CLERK**

State of Florida



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:

May 23, 2018

TO:

Office of Commission Clerk (Stauffer)

FROM:

Division of Engineering (Wooten, Ellis, Wright) Swift And Division of Economics (Www)

Office of the General Counsel (DuVal) MA CM

RE:

Docket No. 20180082-EQ – Petition for approval of revisions to standard offer

contract and rate schedule COG-2, by Tampa Electric Company.

AGENDA: 06/05/18 – 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. 20180073-EQ, 20180081-EQ,

20180082-EQ, 20180083-EQ, and 20180091-EQ.

Case Background

Section 366.91(3), Florida Statutes (F.S.), requires that each investor-owned utility (IOU) continuously offer to purchase capacity and energy from renewable energy generators 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 April 2, 2018, Tampa Electric Company (TECO) filed a petition for

approval of its revised standard offer contract and rate schedule COG-2 based on its 2018 Ten-Year Site Plan.¹

In its petition, TECO erroneously identified a 220 megawatt (MW) natural gas-fueled combustion turbine (CT) with an in-service date of January 1, 2023, as its next avoidable unit. On April 9, 2018, TECO filed a letter which corrected its petition to reflect a 245 MW natural gas-fueled CT with an in-service date of January 1, 2023, bringing the petition in-line with TECO's revised standard offer contract and its 2018 Ten-Year Site Plan.² Revisions to TECO's standard offer contract and rate schedule COG-2 include updates to avoided unit specifications, calendar dates, and a monthly capacity payment example and its accompanying capacity payment parameters.

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

-

¹April 2, 2018, was the first business day following the Sunday, April 1 deadline for standard offer contract filings.

Discussion of Issues

Issue 1: Should the Commission approve the revised standard offer contract and associated rate schedule COG-2 filed by Tampa Electric Company?

Recommendation: Yes. The provisions of TECO's revised standard offer contract and associated rate schedule COG-2, as filed on April 2, 2018, conform to all requirements of Rules 25-17.200 through 25-17.310, F.A.C. The revised 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. (Wright)

Staff Analysis: Rule 25-17.250, F.A.C., requires that TECO, an IOU, continuously make 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. TECO has identified a 245 MW natural gas-fueled CT as its next planned generating unit in its 2018 Ten-Year Site Plan. The projected in-service date of the unit is January 1, 2023.

The RF/QF operator may elect to make no commitment as to the quantity or timing of its deliveries to TECO, 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 January 1, 2023), 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 contains estimates of the annual payments for each payment option available under the revised standard offer contract to an operator with a 50 MW renewable facility operating at a capacity factor of 80 percent, which is the minimum capacity factor required under the contract to qualify for full capacity payments. Normal and levelized capacity payments begin in 2023, reflecting the projected in-service date of the avoided unit (January 1, 2023).

Table 1 – Estimated Annual Payments to a 50 MW Renewable Facility (80% Capacity Factor)

	Enonge	Capacity Payment (By Type)			
Year	Energy Payment	Normal	Levelized	Early	Early Levelized
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	9,115	-	-	1,953	2,301
2020	10,135	-	-	2,000	2,306
2021	10,036	-	-	2,048	2,311
2022	10,469	-	-	2,097	2,316
2023	10,988	1,980	2,266	2,147	2,321
2024	11,216	3,017	3,404	2,199	2,327
2025	12,235	3,090	3,412	2,251	2,332
2026	12,763	3,164	3,420	2,305	2,338
2027	13,223	3,240	3,428	2,361	2,344
2028	14,749	3,318	3,436	2,417	2,350
2029	15,509	3,397	3,444	2,475	2,356
2030	16,982	3,479	3,453	2,535	2,362
2031	17,767	3,562	3,462	2,596	2,369
2032	19,476	3,648	3,471	2,658	2,375
2033	19,982	3,735	3,480	2,722	2,382
2034	21,772	3,825	3,489	2,787	2,389
2035	22,629	3,917	3,499	2,854	2,396
2036	23,259	4,011	3,509	2,922	2,403
2037	25,072	4,107	3,519	2,993	2,410
2038	24,658	4,206	3,529	3,064	2,418
Total	322,037	55,694	54,218	49,384	47,105
NPV (2018\$)	159,833	26,401	26,401	26,401	26,401

Source: TECO's revised response to staff's first data request.³

³Document No. 03640-2018, filed May 11, 2018, in Docket No. 20180082-EQ.

Docket No. 20180082-EQ

Date: May 23, 2018

The type-and-strike format versions of the revised standard offer contract and associated rate schedule COG-2 are included as Attachment A to this recommendation. All of the changes made to TECO's tariff sheets are consistent with the updated avoided unit. Revisions include updates to avoided unit specifications, calendar dates, and a monthly capacity payment example and its accompanying capacity payment parameters.

Conclusion

The provisions of TECO's revised standard offer contract and associated rate schedule COG-2, as filed on April 2, 2018, conform to all requirements of Rules 25-17.200 through 25-17.310, F.A.C. The revised 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. Staff recommends that the revisions to the rate schedule and standard offer contract be approved.

Docket No. 20180082-EQ

Date: May 23, 2018

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, TECO's standard offer contract may subsequently be revised. (DuVal)

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, TECO's standard offer contract may subsequently be revised.



ORIGINAL SHEET NO. 8.202

STANDARD OFFER CONTRACT FOR THE PURCHASE OF CONTRACTED CAPACITY AND ASSOCIATED ENERGY FROM A RENEWABLE GENERATING FACILITY OR A SMALL QUALIFYING FACILITY

This standard offer contract ("Contract") is made and entered into this ____ day of _____, by and between _____, the owner and/or operator of a Facility, as defined below, hereinafter referred to as the "Capacity and Energy Provider" or "CEP" and Tampa Electric Company, a private utility corporation organized under the laws of the State of Florida (hereinafter referred to as the "Company"). The following documents are attached to this Contract and incorporated herein by reference: Appendix I, Evaluation Procedure for Standard Offer Contracts; Appendix II, COG -2 Standard Offer Contract Rate for Purchase of Contracted Capacity and Associated Energy, including all attached appendices thereto; and Appendix III, Interconnection Agreement. The CEP and the Company are also identified hereinafter individually, as a "Party" and collectively, as the "Parties". This Contract may also be referred to herein as the "Standard Offer Contract."

WITNESSETH:

WHEREAS, the CEP is the owner and/or operator of a Facility; and

WHEREAS, the CEP desires to sell Contracted Capacity and Associated Energy, as those terms are defined below; and

WHEREAS, the Company desires to purchase Contracted Capacity and Associated Energy in accordance with Chapter 366.91 F.S. and Florida Public Service Commission (FPSC) Rules 25-17.080 through 25-17.310, Florida Administrative Code (F.A.C.) and the Company's Rate Schedule COG-2; and

WHEREAS, the CEP has signed an Interconnection Agreement with the transmission service provider that serves the CEP's Facility, as defined below; and

WHEREAS, such Interconnection Agreement is attached and incorporated hereto as Appendix III; and

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: May 22, 2007



FIRST REVISED SHEET NO. 8.204 CANCELS ORIGINAL SHEET NO. 8.204

WHEREAS, the Florida Public Service Commission ("FPSC") has approved the form of this Contract for the purchase of Contracted Capacity and Associated Energy from the CEP;

NOW, THEREFORE, in consideration of the mutual covenants and promises set forth herein and other good and valuable considerations the receipt and adequacy of which are hereby acknowledged, the Parties agree as follows:

Definitions:

- a. Actual Capacity: "Actual Capacity" shall mean the amount of Anticipated Capacity, as defined below, that can be made available to the Company at the Delivery Point and which the CEP has confirmed: (1) through performance testing prior to the Commercial In-Service Date, as defined below: and (2) at any time thereafter upon the Company's request.
- b. Anticipated Capacity: "Anticipated Capacity" shall mean the amount of capacity that the CEP intends to make available to the Company at the Delivery Point in _____ kW or in _____ MW from the Facility beginning on or before _____, the in-service date of the Designated Avoided Unit, as defined below.
- c. Associated Energy: "Associated Energy" shall mean the energy generated at the Facility, as defined below, by the generating source designated to supply Contracted Capacity and which is delivered to the Company at the Delivery Point, as defined below.
- d. Company Transmission Service: "Company Transmission Service" shall mean the network transmission service required through the Company's transmission system to deliver Associated Energy from the Delivery Point to the Company's native load customers.
- e. Construction Commencement Date: "Construction Commencement Date" shall mean the date on which the CEP's: (1) on-site activity is coordinated and continuous; and (2) active construction efforts are undertaken and on-going relative to the actual construction of major project features other than site preparation work; provided, however, that such date shall occur no later than

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: July 29, 2008



FIRST REVISED SHEET NO. 8.206 CANCELS ORIGINAL SHEET NO. 8.206

f.	Contracted Capacity: "Contracted Capacity" shall mean the amount of Actual Capacity in kW or in MW that the CEP commits to reserve, make available and supply to the Company from its Facility on a firm, first-call, subordinate-to-no-other-entity-or-party, on-call, as-needed basis, and for which the Company commits to pay the CEP.
g.	Delivery Point: "Delivery Point" shall mean: (1) the Interconnection Point, as described below, if the Facility is directly interconnected to the Company's transmission system; or (2) a point on the Company's transmission system, mutually agreed to by the Parties, at which the CEP shall deliver Contracted Capacity and Associated Energy via a third-party transmission service provider, if the Facility is not directly interconnected to the Company's transmission system.
h.	Designated Avoided Unit: "Designated Avoided Unit." shall mean the generating unit, from among those units identified in the Appendices C through F to the Company's COG-2 Tariff as the Company's avoided units, selected by the CEP as the unit the CEP wishes to help avoid, or defer, and upon which capacity and energy payments to the CEP will be based. The CEP selects the Designated Avoided Unit from Appendix of Rate Schedule COG-2.
i.	Eastern Prevailing Time: "Eastern Prevailing Time" or "EPT" shall mean the time in effect in the Eastern Time Zone of the United States of America, whether Eastern Standard Time or Eastern Daylight Time.
j.	Evaluation Procedure: "Evaluation Procedure" shall mean the procedure used by the Company to evaluate each eligible standard offer contract received by the Company as to its technical reliability, viability and financial stability, as well as other relevant information, in accordance with FPSC Rule 25-17.0832, F.A.C., and the Company's Procedure for Processing Standard Offer Contracts as defined in Rate Schedule COG-2 The criteria used to evaluate standard offer contracts are attached hereto as Appendix I.
k.	Extended Facility In-Service Date: "Extended Facility In-Service Date" shall mean an extension of the Facility In-Service Date, as defined below, for a period not to exceed five (5) months which may be granted in accordance with Section 7 below.



FIRST REVISED SHEET NO. 8.208 CANCELS ORIGINAL SHEET NO. 8.208

- Facility: "Facility" shall mean the CEP's proposed generating facility described in greater detail in Section 2, below.
- m. Facility In-Service Date: "Facility In-Service Date" shall mean the date on which the Facility is available to supply Contracted Capacity and deliver Associated Energy to the Company (also referred to in the electric power industry as the commercial inservice date or commercial operation date).
- n. FERC: <u>"FERC" shall mean the Federal Energy Regulatory Commission or any similar or successor governmental body exercising the same or equivalent jurisdiction.</u>
- o. Interconnection Point: "Interconnection Point" shall mean the plant busbar connection to the high side of the Facility's step-up transformer(s) where Contract Capacity and Associated Energy shall be delivered to the transmission service provider that serves the Facility. The Interconnection Point shall be specified in detail in the Interconnection Agreement (see Appendix III).
- p. Non-Dispatched Capacity: "Non-Dispatched Capacity" shall mean the amount of Contracted Capacity that the Company declines to schedule or request during any given hour, due to an emergency condition, or any other condition/reason. The Company shall adjust the Dispatch Schedule, as defined below, as soon as practical to reflect the amount of Non-Dispatched Capacity, or ignore scheduled capacity levels altogether (if conditions require immediate action to protect the integrity and/or reliability of the Company's generating system and/or transmission system); however, the Company shall make reasonable efforts to minimize departures from the Dispatch Schedule.
- q. Non-Dispatched Energy: "Non-Dispatched Energy" shall mean the energy associated with Non-Dispatched Capacity and which the Company declines to accept during any given hour, due to an emergency condition, or any other condition/reason.
- r. Qualifying Facility: "Qualifying Facility" shall mean a cogeneration facility, or small power production facility, that satisfies the definition of, and qualifies as, a Qualifying Facility in accordance with the provisions of Subpart B of Subchapter K, Part 292 of Chapter I, Title 18, Code of Federal Regulations (C.F.R.), promulgated by the FERC, as the same may be amended from time to time, and must be "new capacity" pursuant to the Public Utilities Regulatory Policies Act of 1978 (PURPA), construction of which began on or after November 9, 1978.

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: July 29, 2008

Attachment A Page 5 of 104

Docket No. 20180082-EQ Date: May 23, 2018



FIRST REVISED SHEET NO. 8.212 CANCELS ORIGINAL SHEET NO. 8.212

- s. Renewable Generating Facility: "Renewable Generating Facility" shall mean a generating facility that satisfies the definition of, and qualifies as, a renewable generating facility in accordance with the provisions of Section 366.91, Florida Statutes and Rule 25-17.210 (1), F.A.C.
- t. Small Qualifying Facility: "Small Qualifying Facility" shall mean a Qualifying Facility with a design capacity of 100 kW or less, as defined by subsection 25-17.080(3), F.A. C.
- u. Third-Party Transmission Services: "Third-Party Transmission Services" shall mean the firm transmission service(s) and ancillary services required to deliver Contracted Capacity and Associated Energy from the Facility to the Company's transmission system if the Facility is not directly interconnected to the Company's transmission system.
- 2. CEP's Proposed Facility: The CEP contemplates installing and operating a Facility kilowatts (kW) to be located at designed to produce a maximum of , which shall be and remain the specific site of the Facility providing Contracted Capacity and Associated Energy under this Contract throughout the Term, as described below, of this Contract. The Facility is designed, operated and controlled to satisfy the interconnection requirements of the Company's transmission system or the third-party transmission service provider that serves the Facility, as applicable. The Facility shall: (a) satisfy the Company's Open Access Transmission Tariff ("OATT") requirements and/or all non-FERC jurisdictional interconnection and/or transmission service agreements required by the CEP to deliver Contracted Capacity and Associated Energy to the Company, as applicable, to be designated a Company network resource and receive network transmission service from the Company; (b) be fully dispatchable in the manner set forth in Appendix __ of Rate Schedule COG-2; and (c) be an existing Renewable Generating Facility or a Small Qualifying Facility or a Renewable Generating Facility or a Small Qualifying Facility that the CEP proposes to construct and operate.
- 3. Term: The "Term" of this Contract shall commence immediately upon its execution by the Parties and shall terminate at 12:01 A.M. on the later of: (a) the last day of the tenth year following the in-service date of the avoided unit, or (b) ______(a date selected by the CEP provided that such date is no later than the day after the last day of the life of the avoided unit identified in Section 1h above).



FIRST REVISED SHEET NO. 8.214 CANCELS ORIGINAL SHEET NO. 8.214

- 4. Company's Capacity and Energy Purchase Commitment: The Company agrees to purchase all Contracted Capacity and Associated Energy, excluding Non-Dispatched Energy, generated at the Facility and provided to the Company at the Delivery Point by the CEP pursuant to this Contract, excluding the amount of capacity and energy consumed by the Facility's station service equipment (such as generator auxiliaries, emissions control and monitoring equipment, fuel handling equipment, etc.) and all transmission system losses incurred by the CEP to effect delivery of Contracted Capacity and Associated Energy to the Delivery Point.
- 5. Non-Dispatched Capacity and Non-Dispatched Energy Restriction: To the extent that there is Non-Dispatched Capacity and Non-Dispatched Energy during a given hour, such Non-Dispatched Capacity and Non-Dispatched Energy shall not be made available or sold by the CEP, or otherwise used in any way or disposed of, without the Company's prior written consent.
- 6. Responsibilities for Interconnection Service, Third-Party Transmission Service and Company Transmission Service: It is the responsibility of the CEP to request and secure the required interconnection service from the transmission service provider that serves the CEP's Facility, whether a third-party transmission service provider or the Company transmission service provider. If the Facility is not located within the Company's transmission system, it is the responsibility of the CEP to request and secure the required third-party transmission service(s) required to deliver Contracted Capacity and Associated Energy to the Company's transmission system. It is the responsibility of the CEP to: (i) satisfy the third-party transmission provider's, or the Company's, OATT requirements and/or all non-FERC jurisdictional interconnection and/or transmission service agreements required by the CEP to deliver Contracted Capacity and Associated Energy to the Company, as applicable; (ii) arrange and pay to interconnect the Facility to the third-party transmission service provider; (iii) become and continue to be an eligible customer under the third-party transmission provider's OATT, or the Company's OATT, as applicable, during the Term; and (iv) request and purchase all required firm Third-Party Transmission Services and interconnection service, if applicable, in a timely manner to satisfy the provisions of this Contract.

If the Facility is located within the Company's transmission system, it is the responsibility of the Company to request and secure the network transmission service required to deliver Contracted Capacity and Associated Energy from the Delivery Point to the Company's native load customers. It is the responsibility of the Company to request and secure network transmission service in a timely manner to satisfy the provisions of this Contract.

Docket No. 20180082-EQ Attachment A
Date: May 23, 2018 Page 7 of 104



SIXTEENTH REVISED SHEET NO. 8.215 CANCELS FIFTEENTH REVISED SHEET NO. 8.215

Continued from Sheet No. 8.214

- 7. Extension of Facility In-Service Date: The CEP may request and the Company may grant, at its sole discretion, an Extended Facility In-Service Date provided, however, that the CEP shall be subject to the applicable provisions of the Completion Security subsection of the Security Guarantees section of this Contract. If the Facility In-Service Date is delayed and an Extended Facility In-Service Date has not been granted, or the Extended Facility In-Service Date is not satisfied, the CEP shall be subject to the applicable provisions of the Completion Security subsection of the Security Guarantees section of this Contract, which may be requested by the CEP and may be granted by the Company, at its sole discretion.
- 8. **Billing Methodology**: The billing methodology applicable to the Company's purchase, and the CEP's sale, of Contract Capacity and Associated Energy pursuant to this Contract shall be: (i) (______) Net Billing Arrangement; or (ii) (______) Simultaneous Purchase and Sale Arrangement, such purchases being arranged from the interconnecting utility and sales being made to the Company. Once made, the selection of a billing methodology may only be changed in accordance with FPSC Rule 25-17.082, F.A.C., and shall be in accordance with the following provisions:
 - a. upon at least 30 days advance written notice to the Company; and
 - upon installation by the Company of any additional metering equipment reasonably required to effect the change in billing methodology; and
 - c. upon payment by the CEP for such metering equipment and its installation; and
 - d. upon the Company's approval and completion of any alterations to the Interconnection Point that are reasonably required to effect the change in billing methodology and upon payment by the CEP for such alterations.

The Parties agree that the CEP's obligation to generate and sell Contracted Capacity and Associated Energy from the Facility is subject to both scheduled and unscheduled outages of the Facility and the transmission service(s) required to effect delivery of same to the Delivery Point. Neither Party shall be required to compensate the other Party for Contracted Capacity and Associated Energy which from time to time may not be generated and sold by the CEP, or received and purchased by the Company, as a result of such scheduled and unscheduled outages. The Parties agree to use best efforts to minimize the duration of any scheduled or unscheduled outages which from time to time may interrupt the purchase and sale of Contracted Capacity and Associated Energy under this Contract.

Continued to Sheet No. 8.216

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: June 30, 2009

Attachment A Page 8 of 104



SECOND REVISED SHEET NO. 8.216 CANCELS FIRST REVISED SHEET NO. 8.216

Continued from Sheet No. 8.215				
9. Payment:				
	a.	Associated Energy Payment: The Company agrees to pay the CEP for Associate Energy delivered to the Company at the Delivery Point in accordance with the energy payment options, rates, and procedures contained in Rate Schedule COG-2 attached hereto as Appendix II.		
	 i. Standard Energy Payments: Associated Energy payments made pri , shall be based on the Company's actual avo energy costs as defined in Appendix B of Rate Schedule COG-2. 			
			Beginning, to the extent that the Designated Avoided Unit would have been operated had it been installed by the Company, the CEP's Associated Energy payments will be based on the Company's Designated Avoided Unit's energy costs as calculated in Appendix of Rate Schedule COG-2, otherwise the CEP's Associated Energy payment will be based on the Company's actual avoided energy costs. The determination of which energy cost shall be applied will be made hourly.	
		ii.	Fixed Energy Payments: The CEP does does not request fixed Associated Energy payments as follows:	
			YesNo, as to Associated Energy payments made prior to, which, if requested, shall be based on the Company's year-by-year projection of system incremental fuel costs prior to hourly economy energy sales to other utilities, based on normal weather and fuel market conditions, plus a fuel market volatility risk premium mutually agreed to by Tampa Electric and the CEP, which projected system incremental fuel costs will be provided by the Company within 30 days of the date of request by the CEP. The CEP and Tampa agree to the following fuel market volatility risk premium(s):	
			YesNo, as to Associated Energy payments, calculated as follows: Subsequent to the determination of full avoided cost and subject to the provisions of paragraphs 25-17.0823(3)(a) through (d) F.A.C., a portion of the base energy costs associated with the avoided unit, mutually agreed upon by the Company and the CEP, shall be fixed and amortized on a present value basis over this Contract commencing, at the election of the CEP, as early as the in-service date of the CEP's Facility. "Base energy costs associated with the avoided unit" means the energy costs	
			Continued to Sheet No. 8 218	



ORIGINAL SHEET NO. 8.218

of the avoided unit to the extent that the Designated Avoided Unit would have been operated.

The stream of Fixed Energy Payments to the CEP, calculated as stated above, will be provided by the Company within 30 days of the date of request by the CEP.

b. Contracted Capacity Payment:

- Dispatch Requirements: In order to receive a Contracted Capacity Payment for each calendar month that the Facility is to be dispatched, the CEP must meet or exceed both the minimum Monthly Availability and Monthly Capacity Factor requirements.
- Commencement of Contracted Capacity Payments: The CEP elects to receive, and the Company agrees to commence calculating, Contracted Capacity payments in accordance with this Contract starting with the first Monthly Period following ______.
- iii. Contracted Capacity Payment Options: The following five (5) options are available to the CEP for payment of Contracted Capacity delivered by the CEP:
 - 1. Value of Deferral Capacity Payments;
 - 2. Early Capacity Payments;
 - 3. Levelized Capacity Payments;
 - 4. Early Levelized Capacity Payments; or
 - 5. Other Contracted Capacity Payment Option agreed upon by the Parties that best satisfies the financing requirements of the Facility. Such Other Contracted Capacity Payment Option is described as follows:

The CEP elects to receive Contracted Capacity payments pursuant to option _____ above.

The CEP _____ does ___ does not elect to have Early Capacity Payments consisting of the capital component of the Company's Designated Avoided Unit commence on _____ (a date any time after the actual Facility In-Service date and before the anticipated in-service date of the Company's Designated Avoided Unit).

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: May 22, 2007

Attachment A Page 10 of 104

Docket No. 20180082-EQ Date: May 23, 2018



FIRST REVISED SHEET NO. 8.222 CANCELS ORIGINAL SHEET NO. 8.222

Regardless of the Contracted Capacity Payment Option elected by the CEP, the cumulative present value of payments for the Contracted Capacity made to the CEP over the Term shall not exceed the cumulative present value of payments for the Contracted Capacity which would have been made to the CEP had such payments been made pursuant to subparagraph 25-17.0832(4)(g)1., F.A.C. All fixed operation and maintenance expense shall be calculated in conformance with subsection 25-17.0832(6), F.A.C.

At the end of each Monthly Period, beginning with the Monthly Period specified in Section 9.b.ii, the Company will calculate the CEP's Monthly Availability and Capacity Factor. During the Term, if the CEP's Monthly Availability and Capacity Factor equals or exceeds the Minimum Performance Standards (MPS) as set forth for in Rate Schedule COG-2, Appendix ___, then the Company agrees to pay the CEP a Monthly Capacity Payment as calculated in paragraph 5 of the section entitled Basis for Monthly Capacity Payment Calculation in Appendix ___ of Rate Schedule COG-2.

The Contracted Capacity payment for a given month during the Term will be added to the Associated Energy payment for such month and tendered by the Company to the CEP as a single payment as promptly as possible, normally by the 20th business day following the day the meter is read or the amount of Associated Energy delivered via the third-party transmission service provider is confirmed by the Company.

- 11. Construction and Performance Security Guarantees: The Company requires certain security guarantees to ensure the completion of construction and performance under this Contract in order to protect its ratepayers in the event the CEP fails to deliver Contracted Capacity and Associated Energy in the amount and times specified in this Contract, which shall be in form and substance as described herein. Such security may be refunded in the manner described in Sections 11.a. and 11.b. Pursuant to FPSC Rule 25-17.091, F.A.C., a utility may not require security guarantees from a Municipal Solid Waste Facility as required in FPSC Rule 25-17.0832(2)(d) and (3)(f)(1), F.A.C. However, at its option, a Municipal Solid Waste Facility may provide such risk-related guarantees.

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: July 29, 2008



SECOND REVISED SHEET NO. 8.224 CANCELS FIRST REVISED SHEET NO. 8.224

Continued from Sheet No. 8.222

a. Completion Security: If the CEP or its guarantor, if any, does not qualify for unsecured credit in Company's reasonable sole discretion, the CEP shall pay to the Company a security deposit equal to \$30.00 per kilowatt (\$30.00/kW) of Contracted Capacity as security for the CEP's completion of the Facility by the Facility In-Service Date. Such security will be required within sixty (60) days of execution of this Contract. Such security shall be in the form of cash deposited in an interest bearing escrow account mutually acceptable to the Company and the CEP; an unconditional and irrevocable direct pay letter of credit in form and substance satisfactory to the Company; or a performance bond in form and substance satisfactory to the Company. The form of security required will be in the sole discretion of the Company and will be in such form as to allow the Company immediate access to the funds in the event that the CEP fails to complete the construction and achieve commercial in-service status by the Facility In-Service Date.

If the Facility In-Service Date is achieved, then the entire deposit and any interest therein, if applicable, shall be refunded to the CEP upon payment by the CEP of the Performance Security as required in Section 11.b.

If the Facility In-Service Date is delayed, the Company may, upon the request of the CEP, at its sole discretion, agree to an Extended Facility In-Service Date, in which case the Company shall be entitled to retain or draw down on an amount equal to twenty percent (20%) of the original deposit amount for each month (or portion thereof) that the Facility In-Service Date is delayed. If the Facility In-Service Date is delayed and an Extended Facility In-Service Date has not been granted or the Extended Facility In-Service Date is not satisfied or delayed beyond the Extended Facility In-Service Date, the Company shall retain all of the deposit and terminate this Contract.

Notwithstanding the foregoing if the CEP does not satisfy the Construction Commencement Date or the Facility In-Service Date as defined in COG-2 in accordance with the terms and conditions of this Contract, this Contract shall be rendered of no force and effect, except for those provisions of this Agreement that provide the Company rights and remedies as against CEP because of its failure to meet the Construction Commencement Date or the Facility In-Service Date.

Continued to Sheet No. 8.226

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: June 30, 2009



FIRST REVISED SHEET NO. 8.226 CANCELS ORIGINAL SHEET NO. 8.226

b. Performance Security: Within 60 days after the later of the Facility In-Service Date or the in-service date of the Designated Avoided Unit, the CEP shall pay the Company a deposit in the amount of \$30.00/kW of Contracted Capacity as security for the CEP's performance under this Contract. Such security deposit shall be provided in the same manner as the Completion Security deposit as described in Section 11.a. Such Performance Security shall be retained by the Company for 12 months from the later of the Facility In-Service Date or the in-service date of the Designated Avoided Unit.

If, at the end of the 12-month period so described, the Facility's 12-month average of each month's numerical value for both the monthly Availability Factor and the Monthly Capacity Factor meet the Minimum Performance Standards (MPS) for as set forth in Rate Schedule COG-2, Appendix ___, then the CEP shall be entitled to a refund of such deposit. However, if at the end of the first 12-month period, the Facility's 12-month average of each month's numerical value for both the Monthly Availability Factor and the Monthly Capacity Factor fail to meet the MPS, then the Company shall be entitled to retain or draw down 50% of such deposit and retain the remainder of the security for an additional 12-month period.

If, at the end of the 24th month, the Facility's 12-month average of each month's numerical value for both the Monthly Availability Factor and the Monthly Capacity Factor again fail to achieve the MPS, for the most recent 12-month period, then the Company shall be entitled to retain the remainder of the security and to terminate this Contract. However, if at the end of the 24th month, the Facility's 12-month average of each month's numerical value for both the Monthly Availability Factor and the Monthly Capacity Factor meet the MPS, for the most recent 12-month period, then the CEP shall be entitled to a refund of the remaining deposit.

For the purpose of this calculation, the 12-month average of a parameter shall be defined to equal the sum of each month's average numerical value for that parameter, for the most recent 12-month period, divided by 12.

12. Liquidated Damages: The Parties hereto agree that the Company would be substantially damaged in amounts that would be difficult or impossible to ascertain in the event that the CEP fails to satisfy the Facility In-Service Date or to provide a Facility which meets the MPS. In the event that the Company terminates this Contract for the CEP's failure to achieve the Facility In-Service Date or achieve the MPS once in service, the Company may retain all of the Completion or Performance Security as liquidated damages, not as penalty, in lieu of actual damages and the CEP hereby waives any defenses as to the validity of any such liquidated damages. In the event the

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: July 29, 2008



FIRST REVISED SHEET NO. 8.228 CANCELS ORIGINAL SHEET NO. 8.228

CEP defaults, it forfeits the aforesaid Completion or Performance Security. In addition thereto, the Company shall be entitled to pursue such equitable remedies against the CEP as may be available.

- Production and Maintenance Schedule: During the Term, the CEP agrees to the following:
 - a. The CEP shall provide the Company in writing prior to April 1st of each calendar year an estimate of the amount of electricity to be generated by the CEP and delivered to the Company for each month of the following calendar year, including the time, duration and magnitude of any planned outages of the Facility or reductions to the amount of Contracted Capacity that the CPE can make available at the Delivery Point.
 - b. By July 1st of each calendar year, the Company shall notify the CEP in writing whether the requested scheduled maintenance period(s) for the Facility are acceptable. If the Company cannot accept any of the requested period(s), the Company shall advise the CEP of the time period closest to the requested period(s) when the outage(s) can be scheduled. The CEP shall only schedule outages during periods approved by the Company and such approval shall not be unreasonably withheld. Once the schedule has been established and approved, either Party requesting a subsequent change in such schedule, except when such event is due to Force Majeure, must obtain approval for such change from the other Party. Such approval shall not be unreasonably withheld or delayed.
 - c. During the Term, the CEP shall employ qualified personnel for managing, operating and maintaining the Facility and for coordinating such with the Company. The CEP shall ensure that operating personnel are on duty at all times, twenty-four (24) clock hours per calendar day and seven (7) calendar days per week. Additionally, during the Term, the CEP shall operate and maintain the Facility in such a manner as to ensure compliance with its obligations hereunder.
 - d. The Company shall not be obligated to purchase and may require curtailed or reduced deliveries of Associated Energy, to the extent necessary to maintain the reliability and integrity of any part of the Company's system, or if the Company determines that a failure to do so is likely to endanger life or property, or is likely to result in significant disruption of electric service to the Company's Customers. The Company shall give the CEP prior notice, if practicable, of its intent to refuse, curtail or reduce the Company's acceptance of Associated Energy pursuant to this subsection and will act to minimize the frequency and duration of such occurrences.



FIRST REVISED SHEET NO. 8.232 CANCELS ORIGINAL SHEET NO. 8.232

- e. The Company shall not be required to accept or purchase Associated Energy during any period in which, due to operational circumstances, acceptance or purchase of such Associated Energy would result in the Company's incurring costs greater than those which it would incur by generating an equal additional amount of energy with its own resources. The Company shall give the CEP as much prior notice as practicable of its intent not to accept Associated Energy pursuant to this subsection.
- f. The CEP shall promptly update the yearly generation schedule and maintenance schedule of the Facility as soon as any change to such schedules are determined to be necessary;
- g. The CEP shall comply with reasonable requirements of the Company regarding dayto-day or hour-by-hour communications between the Parties relative to the performance of this Contract.
- Dispatch Procedure: Commencing on the calendar day prior to the Facility In-Service 14. Date or the Extended Facility In-Service Date, as applicable, and continuing each calendar day thereafter during the Term, by 7:00 A.M. EPT, the CEP shall electronically transmit the hour-by-hour amounts of Contracted Capacity expected to be available from the Facility the next day ("Available Schedule"). Commencing on the calendar day prior to the Facility In-Service Date or the Extended Facility In-Service Date, as applicable, and continuing each calendar day thereafter during the Term, by 3:00 P.M. EPT, the Company shall electronically transmit the hour-by-hour amounts of Contracted Capacity that the Company desires the CEP to dispatch from the Facility the next day based on the Available Schedule supplied at 7:00 A.M. EPT by the CEP ("Dispatch Schedule"). The CEP's Available Schedule and the Company's Dispatch Schedule for Fridays will include Saturday, Sunday, and Monday schedules. The CEP's Available Schedule and the Company's Dispatch Schedule during holiday periods will be similarly adjusted to include the holiday period. The CEP shall control and operate the Facility in accordance with the Company's Dispatch Schedule.

From time to time, the Company may be required to adjust the Dispatch Schedule, as described in the definition of Non-Dispatched Capacity, and/or the CEP may be required to adjust the Dispatch Schedule due to an unscheduled or forced outage of all, or a portion of, the Facility; however, each Party shall make reasonable efforts to minimize departures from the Dispatch Schedule.



FIRST REVISED SHEET NO. 8.234 CANCELS ORIGINAL SHEET NO. 8.234

- 15. Additional Criteria: The CEP shall comply with the reasonable requests of the Company regarding daily or hourly communications. Commencing on the calendar day prior to the Facility In-Service Date or the Extended Facility In-Service Date, as applicable, and continuing during the Term:
 - a. The CEP shall provide monthly generation estimates for the Facility by December 1 for the next calendar year; and
 - The CEP shall promptly update its yearly generation schedule for the Facility when any changes are determined necessary; and
 - The CEP shall agree to reduce generation from the Facility or take other appropriate action as requested by the Company for safety reasons or to preserve system integrity; and
 - d. The CEP shall coordinate scheduled outages of the Facility with the Company.
- 16. Automatic Generation Control: At the Company's discretion, the CEP will operate the Facility with Automatic Generation Control (AGC) equipment, speed governors, and voltage regulators in-service, except at such times when operational constraints of the equipment prevent AGC operation.
- 17. CEP's Obligation if the CEP Receives Payments Pursuant to Contracted Capacity Payment Options 2, 3, 4, or 5: The Parties recognize that Rule 25-17.0832, F. A. C., may require the repayment by the CEP of all, or a portion of any, Capacity Payments made to the CEP pursuant to Contracted Capacity Payment Options 2, 3, 4, or 5 of Section 9.b.iii if the CEP fails to perform pursuant to the terms and conditions of this Contract. To ensure that the CEP will satisfy its obligation to make any such repayments, the following provisions will apply:

The Company shall es	stablish a Repayment A	ccount to accrue the s	um of the capacity
payments that may ha	ive to be repaid by the	CEP to the Company.	Amounts shall be
added to the Repayme	ent Account each month	through	, in the amount
of the Company's payr	nents to the CEP for cap	acity delivered prior	
to	Beginning on	, the diffe	rence between the

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: July 29, 2008

Docket No. 20180082-EQ

Date: May 23, 2018





FIFTH-SIXTH REVISED SHEET NO. 8.236 CANCELS FOURTH-FIFTH REVISED SHEET NO. 8.236

Continued from Sheet No. 8.234

Contracted Capacity payment made to the CEP and the "normal" Contracted Capacity payment calculated pursuant to Contracted Capacity payment option 1 (Value of Deferral Payments) in COG-2 will also be added each month to the Repayment Account, so long as the payment made to the CEP is greater than the monthly payment the CEP would have received if it had selected Contracted Capacity Payment Option 1 in Section 6.b.iii. The annual balance in the Repayment Account shall accrue interest at an annual rate of 6.9767.080%.

The CEP shall owe the Company and be liable for the current balance in the Repayment Account. The Company agrees to notify the CEP monthly as to the current Repayment Account balance.

In the event of default by the CEP, the total Repayment Account balance shall become due and payable within twenty (20) business days of receipt of written notice, as reimbursement for the Early Contracted Capacity Payments made to the CEP by the Company. The CEP's obligation to reimburse the Company in the amount of the balance in the Repayment Account shall survive the termination of the CEP's Contract with the Company. Such reimbursement shall not be construed to constitute liquidated damages and shall in no way limit the right of the Company to pursue all its remedies at law or in equity against the CEP.

Continued to Sheet No. 8.238

ISSUED BY: G. L. GilletteN. G. Tower.

President

DATE EFFECTIVE: July 13, 2017



SECOND REVISED SHEET NO. 8.238 CANCELS FIRST REVISED SHEET NO. 8.238

Prior to receipt of Contracted Capacity Payments pursuant to Contracted Capacity Payment Options 2, 3, 4, or 5, the CEP shall secure its obligation to repay any balance in the Repayment Account in the event the CEP defaults pursuant to this Contract. Such security shall be in the form of cash deposited in an interest bearing escrow account mutually acceptable to the Company and the CEP; an unconditional and irrevocable direct pay letter of credit in form and substance satisfactory to the Company; or a performance bond in form and substance satisfactory to the Company. The form of security required will be in the sole discretion of the Company and will be in such form as to allow the Company immediate access to the funds in the event of default by the CEP. Florida Statute 377.709(4) requires the local government to refund Early Contracted Capacity Payments should a Municipal Solid Waste Facility owned, operated by or on the behalf of a local government be abandoned, closed down or rendered illegal. Therefore a utility may not require risk-related guarantees from a Municipal Solid Waste Facility as required in FPSC Rule 25-17.0832(2)(c) and (3)(e)(8), F.A.C. However, at its option, a Municipal Solid Waste Facility may provide such risk-related guarantees.

- 18. Ownership and Offering For Sale of Renewable Energy Attributes: A CEP that owns and/or operates a Renewable Generating Facility retains any and all rights to own and sell any and all environmental attributes associated with the electrical generation of such Renewable Generating Facility, including but not limited to any and all renewable energy certificates, "green tags", or other tradeable environmental interests (collectively "RECs"), of any description. In the event that the CEP decides to sell any such environmental attributes during the term of this Contract, the CEP shall provide notice to the Company of its intent to sell such environmental attributes and provide the Company a reasonable opportunity to offer to purchase such environmental attributes.
- 19. Changes in Environmental and Governmental Regulations: This Contract may be reopened, at the election of either Party, as a result of new environmental and other regulatory requirements enacted during the Term that affect the Company's full avoided costs of the unit on which this Contract is based.
- 20. Non-Performance Provisions: The CEP shall not receive a Contracted Capacity payment during any month during the Term in which the CEP fails to meet the MPS for Monthly Availability and Monthly Capacity Factor of the Company's Designated Avoided Unit as defined in Rate Schedule COG-2, Appendix __. In addition, if for any month starting ______, the CEP fails to achieve the MPS, and the Monthly Contracted Capacity Payment that would have been made to the CEP pursuant

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: August 7, 2009



SECOND REVISED SHEET NO. 8.242 CANCELS FIRST REVISED SHEET NO. 8.242

Continued from Sheet No. 8,238

to the Contracted Capacity payment option selected is less than the "normal" Monthly Contracted Capacity Payment had the CEP selected Option 1, then the CEP shall be liable for and shall pay the Company an amount equal to the Early Payment Offset Amount for the month; provided, however, that such calculation shall assume that the CEP satisfied the MPS. Any payments thus required of the CEP shall be separately invoiced by the Company to Energy Provider after each month for which such payment is due and shall be paid by the CEP within twenty (20) business days after receipt of such invoice by the CEP. Such payment shall be debited from the Capacity Account as an Early Payment Offset Amount provided that any such payment will not exceed the current balance in the Capacity Account.

21. Default

- a. Mandatory Default: The CEP shall be in default under this Contract if it:
 - is dissolved (other than pursuant to a consolidation, amalgamation or merger); or
 - ii. becomes insolvent or is unable to pay its debts or fails or admits in writing its inability generally to pay its debts as they become due; or
 - iii. makes a general assignment, arrangement or composition with or for the benefit of its creditors; or
 - iv. institutes or has instituted against it a proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditors' rights, or a petition is presented for its winding-up or liquidation, and, in the case of any such proceeding or petition instituted or presented against it, such proceeding or petition (a) results in a judgment of insolvency or bankruptcy or the entry of an order for relief or the making of an order for its winding-up or liquidation or (b) is not dismissed, discharged, stayed or restrained in each case within 30 days of the institution or presentation thereof; or
 - seeks or becomes subject to the appointment of an administrator, provisional liquidator, conservator, receiver, trustee, custodian or other similar official for it or for all or substantially all its assets; or

Continued to Sheet No. 8.243

Docket No. 20180082-EQ Attachment A
Date: May 23, 2018 Page 19 of 104



ORIGINAL SHEET NO. 8.243

Continued from Sheet No. 8.242

- vi. has a secured party take possession of all or substantially all its assets or has a distress, execution, attachment, sequestration or other legal process levied, enforced or sued on or against all or substantially all its assets and such secured party maintains possession, or any such process is not dismissed, discharged, stayed or restrained, in each case within 30 days thereafter; or
- vii. fails to perform in accordance with Section 11.b.
- viii. fails to maintain its status as a Renewable Energy Facility or small Qualifying Facility as required herein; or
- ix. fails to achieve, on both accounts, a minimum Monthly Availability Factor of fifty percent (50%) and fails to achieve a minimum Monthly Capacity Factor of fifty percent, during the same month, for twelve (12) consecutive months starting.
- b. Optional Default: The Company may declare the CEP to be in default if:
 - i. at any time prior to ______, and after Monthly Contracted Capacity Payments have begun, the Company has sufficient reason to believe that the CEP is unable to deliver the entire amount of Contracted Capacity; or
 - after Monthly Capacity Payments have begun, the CEP fails each month, for twenty-four (24) consecutive months, to meet the MPS; or
 - iii. the CEP refuses, is unable or anticipatorily breaches its obligation to deliver the entire amount of Contracted Capacity after ______.
- c. Default Remedy: In the event of default by the CEP, the total Repayment Account balance shall become due and payable within 20 business days of receipt of written notice, as reimbursement for the Early Capacity Payments made to the CEP by the Company. The CEP's obligation to reimburse the Company in the amount of the balance in the Repayment Account shall survive the termination of this Contract. Such reimbursement shall not be construed to constitute liquidated damages and shall in no way limit the right of the Company to pursue all its remedies at law or in equity against the CEP.

Continued to Sheet No. 8.244



FIRST REVISED SHEET NO. 8.244 CANCELS ORIGINAL SHEET NO. 8.244

22. General Provisions:

- a. Permits: The CEP hereby agrees to seek to obtain any and all governmental permits, certifications, or other authority the CEP is required to obtain as a prerequisite to engaging in the activities provided for in this Contract. The Company hereby agrees to seek to obtain, at the CEP's expense, any and all governmental permits, certifications or other authority the Company is required to obtain as a prerequisite to engaging in the activities described in this Contract
- b. Indemnification: The Company and the CEP shall each be responsible for its own facilities in ensuring adequate safeguards for other Company customers, the Company and Energy Provider personnel and equipment, and for the protection of its own generating system. The Company and the CEP shall each indemnify and save the other harmless from any and all claims, demands, costs, or expense for loss, damage, or injury to persons or property of the other caused by, arising out of, or resulting from:
 - any act or omission by a Party or that Party's contractors, agents, servants and employees in connection with the installation or operation of that Party's generation system or the operation thereof in connection with the other Party's system; and
 - ii. any defect in, failure of, or fault related to a Party's generation system; and
 - iii. the negligence of a Party or negligence of that Party's contractors, agents servants and employees; and
 - iv. any other event or act that is the result of, or proximately caused by a Party.
- c. Insurance: The CEP shall deliver to the Company, at least fifteen (15) days prior to the start of any interconnection work, a certificate of insurance certifying the CEP's coverage under a liability insurance policy issued by a reputable insurance company authorized to do business in the State of Florida naming the CEP as named insured, and the Company as an additional named insured, which policy shall contain a broad form contractual endorsement specifically covering the liabilities accepted under this Contract arising out of the interconnection to the Facility, or caused by operation of any of the Facility's equipment or by the CEP's failure to maintain its equipment in satisfactory and safe operating condition.

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: July 29, 2008

Attachment A Page 21 of 104

Docket No. 20180082-EQ Date: May 23, 2018



ORIGINAL SHEET NO. 8.246

 In subsequent years, a certificate of insurance renewal must be provided annually to the Company indicating the CEP's continued coverage as described herein. Renewal certification shall be sent to:

> Tampa Electric Company c/o Director of Risk Management Tampa Electric Company 702 North Franklin Street (33602) P. O. Box 111 Tampa, FL 33601

- ii. The policy providing such coverage shall provide public liability insurance, including coverage for personal injury, death and property damage, in an amount not less than \$1,000,000 for each occurrence; provided however, if the CEP has insurance with limits greater than the minimum limits required herein, the CEP shall set any amount higher than the minimum limits required by the Company to satisfy the insurance requirements of this Contract.
- iii. The above required policy shall be endorsed with a provision whereby the insurance company to notify the Company thirty (30) days prior to the effective date of any cancellation or material change in said policy.
- iv. The CEP shall pay all premiums and other charges due on said policy and keep said policy in force during the entire period of interconnection with the Company or the Term if the Facility is not interconnected to the Company's transmission system.
- d. Force Majeure: If either Party shall be unable, by reason of Force Majeure, to carry out its obligations under this Contract, either wholly or in part, the Party so failing shall give written notice and full particulars of such cause or causes to the other Party as soon as possible after the occurrence of any such cause; and such obligations shall be suspended during the continuance of such hindrance, which, however, shall be remedied with all possible dispatch; and the obligations, terms and conditions of this Contract shall be extended for such period as may be necessary for the purpose of making good any suspension so caused. The term "Force Majeure" shall be taken to mean all acts of God, strikes, lockouts or other industrial disturbances at the manufacturing site of the major equipment components or the construction site, wars, blockades, insurrections, riots, arrests and restraints of rules



ORIGINAL SHEET NO. 8.248

and people, explosions, fires, floods, lightning, wind, perils of the sea, accidents to equipment or machinery or similar occurrences; provided, however that no occurrence may be claimed to be a Force Majeure occurrence if it is caused by the negligence or lack of due diligence on the part of the Party attempting to make such claim and specifically does not include interruption in fuel supply. The CEP agrees to pay the costs necessary to reactivate the Facility and/or the interconnection with the Company's system if the same are rendered inoperable due to actions of the CEP, its agents, or Force Majeure events affecting the Facility or the interconnection with the Company.

If the Facility is interconnected to the Company's transmission system, the Company agrees to reactivate at its own cost the interconnection with the Facility in circumstances where any interruptions to such interconnections are caused by the Company or its agents.

- e. Representations, Warranties, and Covenants of the CEP
 The CEP represents and warrants that as of the date this Contract is executed:
 - i. Organization, Standing and Qualification: The CEP is a (corporation, partnership, or other, as applicable) duly 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 Contract and all other related documents and agreements to which it is or shall be a Party. The CEP 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 Contract or would result in a material liability to or would have a material adverse effect on the Company.
 - ii. Due Authorization, No Approvals, No Defaults, etc.: Each of the execution, delivery and performance by the CEP of this Contract has been duly authorized by all necessary action on the part of the CEP, does not require any approval, except as has been heretofore obtained, of the (shareholders, partners, or others, as applicable) of the CEP or any consent of or approval from any trustee, lessor or holder of any indebtedness or other obligation of the CEP, except for such as have been duly obtained, and does not contravene or constitute a default under any law, the (articles of incorporation, bylaws, or other as applicable) of the CEP, or any agreement,



SECOND REVISED SHEET NO. 8.252 CANCELS FIRST REVISED SHEET NO. 8.252

Continued from Sheet No. 8.248

judgment, injunction, order, decree or other instrument binding upon the CEP, or subject the Facility or any component part thereof to any lien other than as contemplated or permitted by this Contract.

- iii. Compliance with Laws: The CEP has knowledge of all laws and business practices that must be followed in performing its obligations under this Contract. The CEP is in compliance with all laws, except to the extent that failure to comply therewith would not, in the aggregate, have a material adverse effect on the CEP or the Company. By entering into this Contract, the CEP represents and warrants that Facility is a renewable facility pursuant to Rule 25-17.210(1) and(2) F.A.C. or a QF with a design capacity of 100 kW, or less, pursuant to Rule 17.080 F.A.C. and confirms such representation and warranty with the signature of the CEP's authorized representative on this Contract.
- iv. Governmental Approvals: Except as expressly contemplated herein, neither the execution and delivery by the CEP of this Contract, nor the consummation by the CEP of any of the transactions contemplated thereby, requires the consent or approval of, the giving of notice to, the registration with, the recording or filing of any document with, or the taking of any other action in respect of governmental authority, except in respect of permits (a) which have already been obtained and are in full force and effect or (b) are not yet required (and with respect to which the CEP has no reason to believe that the same will not be readily obtainable in the ordinary course of business upon due application therefore).
- v. No Proceedings: There are no actions, suits, proceedings or investigations pending or, to the knowledge of the CEP, threatened against it at law or in equity before any court or tribunal of the United States or any other jurisdiction which individually or in the aggregate could result in any materially adverse effect on the CEP's business, properties, or assets or its condition, financial or otherwise, or in any impairment of its ability to perform its obligations under this Contract. The CEP has no knowledge of a violation or default with respect to any law which could result in any such materially adverse effect or impairment. CEP is not bankrupt and there are no proceedings pending or being contemplated by it or, to its knowledge, threatened against it which would result in it being or becoming bankrupt;
- f. Conditions Precedent: Notwithstanding any other provisions of this Contract including the provisions of Section 20.b, the Company shall have the right to terminate this Contract by notice to the CEP, without cause, liability or obligation, if

Continued to Sheet No. 8.254



ORIGINAL SHEET NO. 8.254

one or more of the following conditions, after reasonable effort by the CEP, shall not have been or cannot be satisfied in the Company's good faith judgment, and in the time periods described below. The Company in its sole discretion may extend the CEP's time for satisfying these conditions if one or more of the events described below is pending as of such date and it is reasonable to expect that such event will be accomplished within sixty (60) days:

- i. The CEP satisfies the Construction Commencement Date;
- ii. If the Facility is a small Qualifying Facility, on or before the Facility In-Service Date: The CEP secures certification of the Facility as a Qualifying Facility as defined herein and as certified by the FERC.
- iii. If the Facility is a small Qualifying Facility, on or before the Facility In-Service Date, and at all times throughout the remaining Term, such Facility shall maintain its status as a Qualifying Facility as defined herein and as certified by the FERC. By the end of the first quarter of each calendar year, the CEP shall furnish the Company a notarized certificate by an officer of the CEP certifying that the Facility has continuously maintained qualifying status on a calendar year basis since the commencement of the Term.
- iv. Within 9 months after the effective date of this Contract: The CEP secures any and all land use and zoning approvals reasonably necessary to obtain construction financing and authorizes the commencement of construction of the Facility on a basis not substantially adverse to the Company;
- v. Within 9 months after the effective date of this Contract: The CEP has secured all other environmental and construction permits and other governmental approvals reasonably necessary to obtain construction financing and to begin construction of the Facility on a basis not substantially adverse to the Company;
- vi. Within 9 months after the effective date of this Contract: The CEP achieves closing of financing for construction of the Facility;
- vii. On or before ______, the CEP provides to the Company written evidence of the rights to adequate fuel supply for the Facility in a form satisfactory to the Company;

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: May 22, 2007



FIRST REVISED SHEET NO. 8.256 CANCELS ORIGINAL SHEET NO. 8.256

Continued from Sheet No. 8.254

- viii. Within 9 months after the effective date of this Contract: The CEP provides evidence in writing in a form satisfactory to the Company indicating and substantiating the ownership of or the right to use the real property at the specific site upon which the Facility will be located; and
- ix. Within 9 months after the effective date of this Contract: The CEP provides sufficient information satisfactory to the Company describing the technical capability and experience of the Facility's technology, including the environmental performance of the Facility.
- g. Assignment: The Company and the CEP shall have the right to assign its benefits under this Contract, but the CEP shall not have the right to assign its obligations and duties without the Company's prior written consent and such consent shall not be unreasonably withheld.
- h. Disclaimer: In executing this Contract, the Company does not, nor should it be construed, to extend its credit or financial support for the benefit of any third parties lending money to or having other transactions with the CEP or any assignee of this Contract.
- i. Notification: For purposes of making any and all non-emergency oral and written notices, payments or the like required under the provisions of this Contract, the Parties designate the following to be notified or to whom payment shall be sent until such time as either Party furnishes the other Party written instructions changing such designate.

For: the Company
c/o Manager-Wholesale Contracts, Wholesale Marketing and Sales Tampa Electric Company 702 North Franklin Street (33602) P.O. Box 111 Tampa, Florida 33601

j. Governing Law and Jurisdiction: This Contract shall be governed by and construed and enforced in accordance with the laws, rules, and regulations of the State of Florida and the Company's Tariff as may be modified, changed, or amended from time to time. With respect to any suit, action or proceedings relating to this Contract, each party irrevocably submits to the exclusive jurisdiction of the courts of the State of Florida and the United States District Court located in

Continued to Sheet No. 8.257



ORIGINAL SHEET NO. 8.257

Continued from Sheet No. 8,256

Hillsborough County in Tampa, Florida; and waives any objection which it may have at any time to the laying of venue of any Proceedings brought in any such court, waives any claim that such Proceedings have been brought in an inconvenient forum and further waives the right to object, with respect to such Proceedings, that such court does not have any jurisdiction over such party. Nothing shall prevent the Beneficiary from enforcing any related judgment against the Guarantor in any other jurisdiction.

• k. Waiver of jury trial: Each party waives, to the fullest extent permitted by applicable law, any and all rights it may have to a trial by jury in respect of any suit, action or proceeding relating to this agreement or any credit support document. Each party (i) certifies that no representative, agent or attorney of the other party or any credit support provider has represented, expressly or otherwise, that such other party would not, in the event of such a suit, action or proceeding, seek to enforce the foregoing waiver and (ii) acknowledges that it and the other party have been induced to enter into this agreement and provide for any credit support document, as applicable, by, among other things, the mutual waivers and certifications in this section.

Continued to Sheet No. 8.258



SECOND REVISED SHEET NO. 8.258 CANCELS FIRST REVISED SHEET NO. 8.258

Continued from Sheet No. 8.257

- I. Taxation: In the event that the Company becomes liable for additional taxes, including interest and/or penalties arising from an Internal Revenue Services determination, through audit, ruling or other authority, that the Company's payments to the CEP for capacity under Options B, C, or D are not fully deductible when paid (additional tax liability), the Company may bill the CEP 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. The Company, at its option, may offset these costs against amounts due the CEP hereunder. These costs would be calculated so as to place the Company 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 the Company 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 the Company.
- m. Severability: If any part of this Contract, for any reason, be declared invalid, or unenforceable by a court or public authority of appropriate jurisdiction, then such decision shall not affect the validity of the remainder of this Contract, which remainder shall remain in force and effect as if this Contract had been executed without the invalid or unenforceable portion.
- n. Complete Contract 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 to this Contract.
- o. Incorporation of Rate Schedule: The Parties agree that this Contract shall be subject to all of the provisions contained in the Company's published Rate Schedule COG-2 as approved and on file with the FPSC. The Rate Schedule is incorporated herein by reference.
- p. Survival of Contract: This Contract, as it may be amended from time to time, shall be binding and inure to the benefit of the Parties' respective successors-in-interest and legal representatives.

Continued to Sheet No. 8.262



SECOND REVISED SHEET NO. 8.262 CANCELS FIRST REVISED SHEET NO. 8.262

Continued from Sheet No. 8.258

- q. Record Retention: The CEP agrees to retain for a period of five (5) years from the date of termination hereof all records relating to the performance of its obligations hereunder, and to cause all CEP entities to retain for the same period all such records.
- r. 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.
- s. Set-off: The Company may at any time, but shall be under no obligation to, set off any and all sums due from the CEP against sums due to the CEP hereunder.
- t. Assistance With the Company FIN 46R Compliance: Accounting rules set forth in Financial Accounting Standards Board Interpretation No. 46 (Revised December 2003) ("FIN 46R"), as well as future amendments and interpretations of those rules, may require the Company to evaluate whether the CEP must be consolidated, as a variable interest entity (as defined in FIN 46R), in the financial statements of the Company. The CEP agrees to fully cooperate with the Company and make available to the Company all financial data and other information, as deemed necessary by the Company, to perform that evaluation on a timely basis at inception of the PPA and periodically as required by FIN 46R. If the result of a the evaluation under FIN 46R indicates that the CEP must be consolidated in the financial statements of the Company, the CEP agrees to provide financial statements, together with other required information, as determined by the Company, for inclusion in disclosures contained in the footnotes to the financial statements and in the Company's required filings with the Securities and Exchange Commission ("SEC"). The CEP shall provide this information to the Company in a timeframe consistent with the Company's earnings release and SEC filing schedules, to be determined at the Company's discretion. The CEP also agrees to fully cooperate with the Company and the Company's independent auditors in completing an assessment of the CEP's internal controls as required by the Sarbanes-Oxley Act of 2002 and in performing any audit procedures necessary for the independent auditors to issue their opinion on the consolidated financial statements of the Company. The Company will treat any information provided by the CEP in satisfying Section 22(s) as confidential information and shall only disclose such information to the extent required by accounting and SEC rules and any applicable laws.

Continued to Sheet No. 8.264



ORIGINAL SHEET NO. 8.264

IN WITNESS WHEREOF, CEP and the year first above written.	Company have executed this Contract the day and
WITNESSES:	Name of Capacity and Energy Provider
	By:
	Its:
WITNESSES:	Tampa Electric Company
	Ву:
-	Its:

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: May 22, 2007

Docket No. 20180082-EQ Attachment A
Date: May 23, 2018 Page 30 of 104



ORIGINAL SHEET NO. 8.266

EVALUATION PROCEDURE FOR STANDARD OFFER CONTRACTS

Standard Offer Contracts shall be evaluated and then accepted based on meeting specific criteria. This Evaluation Procedure will insure the acceptance of Standard Offer Contracts that meet the Company's needs and are in the best interest of customers.

Each eligible Standard Offer Contract received by the Company will be evaluated as to its technical reliability, viability and financial stability, as well as other relevant information, in accordance with FPSC Rule 25-17.0832, F.A.C., and the Company's Procedure for Processing Standard Offer Contracts as defined in Rate Schedule COG-2.

Energy Providers submitting Standard Offer Contracts to the Company should, at the same time, submit specific information for each of the following evaluation criteria. Failure to provide this information may result in a determination of non-viability by the Company. Each eligible Standard Offer Contract received will be evaluated based upon the information provided in response to the following list of parameters:

EVALUATION PARAMETERS:

- 1. Technical Viability:
 - a. What is the technology being proposed?
 - b. Has the technology been demonstrated or commercially applied? Please explain.
 - c. Has the CEP previously utilized this technology elsewhere?
 - Construction: Please provide performance record and experience with project
 - technology.
 - Operations: Please provide operator's experience and performance record in
 - comparable facilities.
 - d. Has a project feasibility study been conducted by an Independent Engineer to assess the project technology and its potential effect on the project's financial results? Please explain.
 - e. What thermal efficiency must be maintained by the unit(s) in order to retain status as a qualifying facility ("QF")?
- Fuel Supply:
 - a. What is the primary fuel type?
 - b. What are the annual fuel requirements? (primary/alternate)
 - c. Has primary fuel supply been secured? Is the fuel supply domestic, cross-border or foreign? What the term of the fuel supply agreement?
 - d. Is an alternate fuel required?

Docket No. 20180082-EQ Attachment A
Date: May 23, 2018 Page 31 of 104



ORIGINAL SHEET NO. 8.268

- e. Has an alternate fuel supply been secured? Is the alternate fuel supply domestic, cross-border or foreign? What is the term of the alternate fuel supply agreement?
- f. Have transportation arrangements for both primary and alternate fuels been secured (firm/interruptible, provide detail)?
- g. Are the pricing terms of the fuel supply agreement(s) directly tied to the corresponding energy payments?
- h. If the fuel is considered to be renewable, please describe the renewable nature of the fuel and the environmental impact of its production and use to generate power.

Reliability:

- Dispatchability: Will the Facility be dispatched on request or will it be base-loaded?
 Please explain.
- b. QF Status: Has the project obtained FERC certification as a QF? Has application been made for FERC certification? Please explain.
- c. Operations and Maintenance: Who will provide O&M for the Facility: (a) developer; or (b) third party? If third party, please provide the name and address of the third party that will be used and any information that would describe their capability to perform this role.
- d. Thermal Energy Host: If project is QF, provide the following information regarding any thermal energy (e.g. steam) host associated with the project:
 - Please explain the importance of the energy, taken by the thermal energy host, to the overall operations of the thermal energy host.
 - ii. Are there adequate alternative candidates in close proximity to the Facility that could serve as a potential thermal energy host replacement?
 - iii. What is the minimum thermal energy "take" necessary for the project to maintain QF status?
 - iv. Has a thermal energy host been secured?
 - v. Is the thermal energy host already in existence?
 - vi. Is it a new thermal energy host? (Is it identifiable?)
 - vii. What are the thermal energy host's operating hours?
 - viii. Are the thermal energy host's business cycle or thermal requirements seasonal? If so explain.
- e. Permits: What permits or licenses will be required for the project? Have the necessary permits or licenses been secured? What specific environmental considerations must the project meet?
- f. Construction Schedule: Has a construction schedule including milestones been formulated? Please provide detail.

Docket No. 20180082-EQ Attachment A
Date: May 23, 2018 Page 32 of 104



FIRST REVISED SHEET NO. 8.278 CANCELS ORIGINAL SHEET NO. 8.278

Continued from Sheet No. 8.268

g. Site Control: Has the project's location been identified? Has the site been secured? Does the site require specific environmental considerations, i.e. wetlands, etc.? Please explain.

4. Developer's Qualifications:

- a. Project's Financial Stability: The Company will assess the creditworthiness of the project developer and/or its guarantor, if any, and determine in the Company's reasonable sole discretion if the project developer's level of unsecured credit is sufficient to provide the required Security to the Company. Please provide detail for the project developer or its guarantor, if any: (a) audited year-end financial statements (including balance sheet, income statement, and statement of cash flows) for the past three fiscal years, and (b) senior unsecured bond ratings from Moody's Investors Service and Standard and Poor's, if applicable.
- b. Developer's Experience: Has developer any projects in operation? Has developer any other projects under construction? Please provide details for each previous Independent Power Production or QF projects undertaken by the developer, including but not limited to:
 - i. Financial arrangements and Institutions,
 - ii. Fuel contracts,
 - iii. Scheduling/project control information,
 - iv. Regulatory treatment,
 - Ownership structure, i.e. partnership, limited partnership, contract buyouts, etc., and
 - vi. Total operating experience and performance.
- c. Project Financing: Has project financing been secured? Will ownership equity in project be 15% or greater? Will the project be structured as a non-recourse financing project? Please provide detail.
- d. Working Capital: Has long-term working capital been secured? Are sufficient reserves available to fund 6 months of debt service? Are sufficient funds available to cover 6 months of O&M expenses? Does project have warranties for key operating equipment during the first year of operations? Please provide detail.
- Additional Information: Please provide the following additional general information to assist the Company in evaluating your Standard Offer Contract
 - a. Standard Offer Committed Capacity (MW):
 - b. Size and type of generation:
 - Any existing or planned capacity commitments or energy sales to other utilities, if so provide detail:

Continued to Sheet No. 8.282

Docket No. 20180082-EQ Attachment A
Date: May 23, 2018 Page 33 of 104



FIRST REVISED SHEET NO. 8.282 CANCELS ORIGINAL SHEET NO. 8.282

Continued from Sheet No. 8.278

- Will the project directly interconnect into the Company's transmission grid? Please explain:
- e. If the project is located external to the Company's retail service area, how will the power be delivered to the Company? Please explain:
- f. Will steam host use a portion of electric generation, if so provide detail:
- g. Please provide developer's ownership structure for this project:
- h. Developer's insurance carrier:
 - o Property damage insurance:
 - o Business interruption insurance:
 - o Rating of insurance carrier:
- i. Please provide estimates of the following:
 - o Expected annual metered electric output,
 - o Expected annual metered useful thermal output, in Btu/hr X operating hours/year,
 - o Expected annual metered fuel input, in Btu/hr X operating hours/year
- j. Other:

EVALUATION CRITERIA AND SCORING: The Company will accept a Standard Offer Contract on the basis of the information provided in response to the evaluation criteria and upon its judgment of other relevant factors. A Standard Offer Contract which has convincingly demonstrated that the project is financially and technically viable and that the committed capacity would be available by the date specified in the Standard Offer Contract will be accepted for further negotiations leading to a contract offer.



ORIGINAL SHEET NO. 8.284

STANDARD OFFER CONTRACT RATE FOR PURCHASE OF CONTRACTED CAPACITY AND ASSOCIATED ENERGY

SCHEDULE: COG-2, firm capacity and energy

AVAILABLE: Tampa Electric Company, herein after referred to as the "Company," will purchase firm capacity and energy offered by renewable generating facilities or qualifying facilities with a design capacity of 100 kW or less ("small qualifying facility") to which a Standard Offer Contract is available under Chapter 366.91 Florida Statutes (F.S) and Florida Public Service Commission (FPSC) Rules 25-17.080 through 25-17.300, Florida Administrative Code (F.A.C.). Unless specifically referred to, a renewable generation facility or a small qualifying facility may be referred to as the "Capacity and Energy Provider" or "CEP". The Company has designated the generating units identified in Appendices C through F, as its Designated Avoided Units. Pursuant to FPSC Rule 25-17.250(2), the Company will accept firm capacity and energy offered by any CEP under the provisions of this schedule for a specific Designated Avoided Unit until:

- 1. A request for proposals (RFP) pursuant to Rule 25-22.082, F.A.C., is issued for the specific planned generating unit; or
- The utility files a petition for a need determination or commences construction for the specific generating unit not subject to Rule 25-22.082, F.A.C., or
- The generating unit upon which the standard offer contract was based is no longer part of the utility's generation plan, as evidenced by FPSC approval of a petition to that effect filed with the FPSC or by its removal from the utility's most recent Ten Year Site Plan.

The Company will negotiate and may contract with any CEP as defined to in Chapter 366.91 F. S. and FPSC Rule 25-17.080, F.A.C., irrespective of its location, which is either directly or indirectly interconnected with the Company, for the purchase of firm capacity and energy pursuant to terms and conditions which deviate from this schedule where such negotiated contracts are in the best interest of the Company's ratepayers and subject to FPSC approval of such a contract.

APPLICABLE: To any CEP to which Standard Offer Contracts are available under Chapter 366.91 F. S. and FPSC Rule 25-17.0832(4)(a), F.A.C., irrespective of its location, producing capacity and energy for sale to the Company on a firm basis pursuant to the terms and conditions of this schedule and the Company's Standard Offer Contract or a separately negotiated contract.

Attachment A Page 35 of 104

Docket No. 20180082-EQ Date: May 23, 2018



ORIGINAL SHEET NO. 8.286

Firm capacity and energy are described in FPSC Rule 25-17.0832, F.A.C., and are capacity and energy produced and sold by the CEP pursuant to a negotiated or Standard Offer Contract and subject to certain contractual provisions as to quantity, time and reliability of delivery. Criteria for achieving CEP status shall be those set out in Chapter 366.91 F.S. and FPSC Rules 25-17.080, 25-17.082(4)(a), and 25-17.091, F.A.C., as applicable.

CHARACTER OF SERVICE: Purchases within the territory served by the Company shall be, at the option of the Company, single or 3-phase, 60 Hertz, alternating current at any available standard Company voltage. Purchases from outside the territory served by the Company shall be three-phase, 60 Hertz, alternating current at the voltage level available at the interchange point between the Company and the entity delivering firm capacity and energy from the CEP.

LIMITATIONS: Purchases under this schedule are subject to the Company's "General Standards for Safety and Interconnection of Cogeneration and Small Power Production Facilities to the Electric Utility System (if applicable)," Federal Energy Regulatory Commission (FERC) Electric Open Access Transmission Tariff (OATT) and associated transmission interconnection tariffs (if applicable), North American Electric Reliability Council (NERC) and Florida Reliability Coordinating Council (FRCC) Reliability Standards, that are applicable to generation and transmission facilities which are connected to, or being planned to be connected to the Company's transmission system (document provided upon request) and to FPSC Rules 25-17.080 through 25-17.091, F.A.C. and are limited to those CEPs which are defined by FPSC Rule 25-17.082(4)(a), F.A.C. and which:

- execute a Company Standard Offer Contract for the Company's purchase of firm capacity and energy; and
- commit to commence deliveries of firm capacity and energy no later than the in-service date of the Designated Avoided Unit, and to continue such deliveries through the later of the last day of the tenth year following the in-service date of the avoided unit or the date selected by the CEP that is no later than the day after the last day of the life of the avoided unit

RATES FOR PURCHASES BY THE COMPANY: firm capacity and energy are purchased at unit costs, in dollars per kilowatt per month (\$/kW/month) and cents per kilowatt-hour (¢/kWh), respectively, based on the value of deferring additional Company generating capacity.



ORIGINAL SHEET NO. 8.288

Firm capacity and energy are described in FPSC Rule 25-17.0832, F.A.C., and are capacity and energy produced and sold by the CEP pursuant to a negotiated or Standard Offer Contract and subject to certain contractual provisions as to quantity, time and reliability of delivery. Criteria for achieving small qualifying facility or renewable facility status shall be those set out in Chapter 366.91 F.S. and FPSC Rules 25-17.080, 25-17.082(4)(a), and 25-17.091, F.A.C., as applicable.

Firm Capacity Rates: Five options (i.e. Options 1, 2, 3, 4, and 5, as set forth below) are available for payment of firm capacity which is produced by the CEP and delivered to the Company. Once selected, the selected option shall remain in effect for the term of the contract with the Company. Exemplary payment schedules for Options 1 through 4, shown for each Designated Avoided Unit are identified in Appendices C through F, contain the monthly rate per kilowatt (kW) of firm capacity the CEP could contractually commit to deliver to the Company. These examples are based on a contract term which extends at least ten years beyond the in-service date of the Designated Avoided Unit. Payment schedules for longer contract terms will be made available to the CEP upon request and may be calculated based on the methodologies described in Appendix A. A payment schedule for Option 5, if selected by the CEP, will be calculated based on Appendix A and the Option 5 description contained in Section 6.b.iii.(5) of the Standard Offer Contract and will be made available by the Company within 30 days of a request by the CEP. At a maximum, firm capacity and energy shall be delivered for a period of time equal to the anticipated plant life of the Designated Avoided Unit, commencing with the in-service date of the Designated Avoided Unit.

Option 1 - Value of Deferral Capacity Payments:

Value of Deferral Capacity Payments shall commence the in-service date of the Designated Avoided Unit, provided the CEP is delivering firm capacity and energy to the Company in accordance with the Minimum Performance Standards (MPS) as described for each Designated Avoided Unit contained in Appendices C through F. Capacity payments under this option shall consist of monthly payments, escalating annually, of the avoided capital and fixed operating and maintenance expense associated with the Designated Avoided Unit and shall be equal to the value of the year-by-year deferral of the Designated Avoided Unit, calculated in conformance with FPSC Rule 25-17.0832, F.A.C., as described in Appendix A.

Option 2 - Early Capacity Payments:

Payment schedules under this option are based on an equivalent net present value of the Value of Deferral Capacity Payments for the Designated Avoided Unit. The earliest date that Early Capacity Payments can be received by the CEP shall be the Commercial In-service Date of the CEP's generating facility. The CEP shall select the



ORIGINAL SHEET NO. 8.292

month and year in which the delivery of firm capacity and energy to the Company is to commence and capacity payments are to start. Early Capacity Payments shall consist of monthly payments, escalating annually, of the avoided capital and fixed operating and maintenance expense associated with the Designated Avoided Unit. Avoided Capacity Payments shall be calculated in conformance with FPSC Rules 25-17.0832 and 25-17.250(4), F.A.C., as described in Appendix A. At the option of the CEP, Early Capacity Payments may commence at any time after the specified earliest capacity payment date and before the in-service date of the Designated Avoided Unit provided the CEP is delivering firm capacity and energy to the Company in accordance with MPS as described for each Designated Avoided Unit contained in Appendices C through F. Where Early Capacity Payments are elected, the cumulative present value of the capacity paid to the CEP over the term of the contract shall not exceed the cumulative present value of the capacity payments which would have been made to the CEP had such payments been made pursuant to Option 1.

Option 3 - Levelized Capacity Payments:

Levelized capacity payments shall commence on the in-service date of the Designated Avoided Unit, provided the CEP is delivering firm capacity and energy to the Company in accordance with the MPS as described for each Designated Avoided Unit contained in Appendices C through F. The capital portion of the capacity payment under this option shall consist of equal monthly payments over the term of the contract, calculated in accordance with FPSC Rule 25-17.0832, F.A.C., as described in Appendix A. The fixed operation and maintenance expense portion of the capacity payment shall be equal to the value of the year-by-year deferral of fixed operation and maintenance expenses associated with the Designated Avoided Unit calculated in conformance with Appendix A. Where Levelized Capacity Payments are elected, the cumulative present value of the capacity paid to the CEP over the term of the contract shall not exceed the cumulative present value of the capacity payments which would have been made to the CEP had such payments been made pursuant to Option 1.

Option 4 - Early Levelized Capacity Payments:

Early Levelized Capacity Payment schedules under this option are based on an equivalent net present value of the Value of Deferral Capacity Payments for the Designated Avoided Unit. The earliest date that Early Levelized Capacity Payments can be received by the CEP shall be the Commercial In-service Date of the CEP's generating facility. The capital portion of the capacity payment under this Option shall consist of equal monthly payments over the term of the contract, calculated in accordance with FPSC Rule 25-17.0832, F.A.C., as described in Appendix A. The fixed operation and maintenance expense portion of the capacity payments shall be equal to



ORIGINAL SHEET NO. 8.294

the value of the year-by-year deferral of fixed operation and maintenance expenses associated with the Designated Avoided Unit calculated in conformance with Appendix A. At the option of the CEP, Early Levelized Capacity Payments shall commence at any time beginning on or after the Commercial In-service Date of the CEP's generating facility and before the in-service date of the Designated Avoided Unit provided the CEP is delivering firm capacity and energy to the Company in accordance with the MPS as described for each Designated Avoided Unit contained in Appendices C through F. The CEP shall select the month and year in which the delivery of firm capacity and energy to the Company is to commence and capacity payments are to start. Where Early Levelized Capacity Payments are elected, the cumulative present value of the capacity payments paid to the CEP over the term of the contract shall not exceed the cumulative present value of the capacity payments which would have been made to the CEP had such payments been made pursuant to Option 1.

Option 5 - Other

In accordance with FPSC Rule 25-17.250(4) F.A.C., the CEP may elect a payment stream for the capital component of the Company's avoided unit, including front-end loaded payments, that best meets the financing requirements of the CEP. Where front-end loaded capacity payments are elected, the cumulative present value of the capacity payments paid to the CEP over the term of the contract shall not exceed the cumulative present value of the capacity payments which would have been made to the CEP had such payments been made pursuant to Option 1. A payment schedule for Option 5 will be developed reflecting the interests of the CEP for front-end loading and will be made available for review by the CEP within 30 days of the date of the request for Option 5, and interests of the CEP have been made known to the Company. Any such Option 5 selection may require additional associated security considerations that will be developed by the Company and presented to the CEP at the same time as the payment schedule. The payment schedule and security considerations will be subject to mutual agreement and approval by the FPSC.

The Company will provide the CEP with a schedule of capacity payment rates based on the month and year in which the delivery of firm capacity and energy are to commence and the term of the contract. The currently approved parameters used to calculate the schedule of payments for each Designated Avoided Unit are found in Appendices D through G of this Schedule.

Regardless of the payment stream elected by the CEP, the cumulative present value of capital cost payments made to the CEP over the term of this Agreement shall not exceed the cumulative present value of the capital cost payments which would have



FIRST REVISED SHEET NO. 8.296 CANCELS ORIGINAL SHEET NO. 8.296

been made to the CEP had such payments been made pursuant to FPSC Rule 25-17.0832(4)(g)1., F.A.C. All fixed operation and maintenance expense shall be calculated in conformance with FPSC Rule 25-17.0832(6), F.A.C.

2. Standard Energy Payment Rates:

The calculation of energy payments to the CEP shall be based on the sum, over all hours of the Monthly Period, of the product of each hour's Energy Payment Rate times the energy purchased from the CEP by the Company for that hour. All purchases shall be adjusted for losses reflecting delivery voltage.

a. As-available Energy Payment Rate: "As-Available Energy" is energy generated by the CEP's facility for purchase by the Company during time periods when the Designated Avoided Unit would not have been operated had it been installed by the Company. The payment rate in ¢/kWh for As-Available Energy is based on the Company's actual hourly avoided energy costs which are calculated by the Company in accordance with FPSC Rule 25-17.0825, F.A.C. Avoided energy costs include incremental fuel and identifiable variable operation and maintenance expenses.

The methodology to be used in the calculation of the avoided energy costs is described in Appendix B.

The As-available Energy Payment rate will apply to energy delivered by the CEP in the period prior to the in-service date of the Designated Avoided Unit and the periods after the in-service date of the Designated Avoided Unit to the extent that the Designated Avoided Unit would have been dispatched and operated by the Company.

b. Unit Energy Payment Rate: To the extent that the Designated Avoided Unit would have been dispatched and operated by the Company, the Unit Energy Payment Rate in ¢/kWh will apply and shall be based on the cost of fuel used by and variable operating and maintenance expense associated with the Designated Avoided Unit The calculation used to determine the Unit Energy Payment Rate is shown under part 2 of the section titled "Basis for Monthly Energy Payment Calculation" of the Designated Avoided Unit Appendices, "C" through "F".



FIRST REVISED SHEET NO. 8.298 CANCELS ORIGINAL SHEET NO. 8.298

3. Fixed Energy Payment Options:

- a. Fixed As-Available Energy Payments: In accordance with FPSC Rule 25-17.250(6)(a) F.A.C., the CEP may elect Fixed As-Available Energy Payments for the period prior to the in-service date of the avoided unit. The Fixed As-Available Energy Payments shall be based on the Company's year-by-year projection of system incremental fuel costs prior to hourly economy energy sales to other utilities, based on normal weather and fuel market conditions plus a fuel market volatility risk premium mutually agreed upon by the Company and the CEP and approved by the FPSC.
- b. Fixed Base Energy Payments: At the election of the CEP, a portion of the base energy costs associated with the avoided unit, mutually agreed upon by the Company and the CEP, may be fixed and amortized on a present value basis over the term of the contract starting as early as the in-service date of the CEP's generating facility pursuant to FPSC Rule 25-17.250(6)(b) F.A.C. "Base energy costs associated with the avoided unit" means the energy costs of the avoided unit to the extent the unit would have been operated. The Company shall develop a schedule of such Fixed Base Energy Payments for the consideration of the CEP based on the expressed interests of the CEP. Should the CEP select Fixed Base Energy Payments, the Company may require additional associated security considerations which will also be mutually agreed upon by the Company and the CEP and approved by the FPSC.

PERFORMANCE CRITERIA: In addition to the following provisions, payments for firm capacity are conditioned on the CEP's ability to meet or exceed the Minimum Performance Standards (MPS) for each of the Company's Designated Avoided Unit as described for each in Appendices C through F:

1. CEP's Commercial In-Service Date: Capacity Payments shall not commence until the CEP has attained and demonstrated commercial in-service status. The Commercial In-Service Date of the CEP shall be defined as the first day of the month following the successful completion by the CEP of maintaining an hourly kW output for a 24 hour period, as metered at the point of interconnection with the Company, equal to or greater than the CEP's "Contracted Capacity" as designated in the Standard Offer Contract. A CEP shall coordinate the operation of its facility during this test period with the Company to insure that the performance of its facility during this 24 hour period is reflective of the anticipated day to day operation of the CEP.

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: July 29, 2008



ORIGINAL SHEET NO. 8.302

- 2. Monthly Availability and Monthly Capacity Factor: Upon achieving commercial inservice status, payments for firm capacity shall be made monthly in accordance with the capacity payment rate option selected by the CEP and subject to the provision that the CEP equals or exceeds the MPS for Monthly Availability and Monthly Capacity Factor of the Company's Designated Avoided Unit, as defined in Appendices C through F of this schedule, on which the Standard Offer Contract is based.
- 3. CEP's Obligation if CEP Receives Capacity Payments Under Capacity Payments Options 2, 3, 4, or 5: The CEP's payment option choice pursuant to Paragraph 6.b.iii of the Company's Standard Offer Contract may result in payments made by the Company for capacity delivered prior to the in-service date of the avoided unit. Similarly, Levelized and Early-Levelized, and front-end loaded Other Capacity Payments for capacity delivered on or after the in-service date of the avoided unit, may also exceed the year-by-year value of deferring the Designated Avoided Unit as specified in this Agreement. The Parties recognize that capacity payments that exceed the year-by-year value of deferring the avoided unit may have to be repaid by the CEP in the event the CEP fails to perform pursuant to the terms and conditions of the Company's Standard Offer Contract.

To ensure that the CEP will satisfy its obligation to make any repayment to the Company, the following provisions will apply:

The Company shall establish a Repayment Account to accrue the sum of the capacity payments that may have to be repaid by the CEP to the Company. Amounts shall be added to the Repayment Account each month through the month prior to the in-service month of the avoided unit, in the amount of the Company's Early Capacity Payments made to the CEP pursuant to the CEP's chosen payment option.

Beginning on the in-service date of the avoided unit, the difference between the capacity payment made to the CEP and the "normal" capacity payment calculated pursuant to Option 1 will also be added each month to the Repayment Account, so long as the payment to the CEP is greater than the monthly payment the CEP would have received if it had selected Option 1 in Paragraph 6.b.iii, of the Company's Standard Offer Contract.

Also beginning on the in-service date of the avoided unit, at such time that the Monthly Capacity Payment made to the EP, pursuant to the Capacity Payment Option selected, is less than the "normal" Monthly Capacity Payment in Option 1, there shall be debited from the Repayment Account an Early Payment Offset Amount to reduce the balance in



ORIGINAL SHEET NO. 8.304

the Repayment Account. Such Early Payment Offset Amount shall be equal to the amount which the Company would have paid for capacity in that month if capacity payments had been calculated pursuant to Option 1 and the CEP had elected to begin receiving capacity payments on the in-service date of the avoided unit minus the Monthly Capacity Payment the Company makes to the CEP (assuming the MPS are met or exceeded), pursuant to the Capacity Payment Option chosen by the CEP.

Monthly Capacity Payments will not be made to the CEP for any month the CEP fails to meet the MPS and if applicable, a payment will be required by the CEP to the Company in an amount equal to the Early Payment Offset for that month. In the event a payment is required from the CEP to the Company, the CEP's Repayment Account will be reduced by the amount of such payment provided that any such payment will not exceed the current balance in the Repayment Account.

The CEP shall owe the Company and be liable for the current balance in the Repayment Account. The annual balance in the Repayment Account shall accrue interest at an annual rate of 7.88%. The Company agrees to notify the CEP monthly as to the current Repayment Account balance.

In the event of default by the EP, the total Repayment Account balance shall become due and payable within 20 business days of receipt of written notice, as reimbursement for the Capacity Payments made to the CEP by the Company in excess of "normal capacity payments.

The CEP's obligation to reimburse the Company in the amount of the balance in the Repayment Account shall survive the termination of the CEP's Standard Offer Contract with the Company. Such reimbursement shall not be construed to constitute liquidated damages and shall in no way limit the right of the Company to pursue all its remedies at law or in equity against the CEP.

Prior to receipt of Early, Levelized, Early-Levelized, or front-end loaded Other Capacity Payments the CEP shall secure its obligation to repay any balance in the Repayment Account in the event the CEP defaults under the terms of its Standard Offer Contract with the Company.

Docket No. 20180082-EQ Attachment A
Date: May 23, 2018 Page 43 of 104



NINTH REVISED SHEET NO. 8.306 CANCELS EIGHTH REVISED SHEET NO. 8.306

Continued from Sheet No. 8.304

Such security shall be in the form of cash deposited in an interest bearing escrow account mutually acceptable to the Company and the EP; an unconditional and irrevocable direct pay letter of credit in form and substance satisfactory to the Company; or a performance bond in form and substance satisfactory to the Company. The form of security required will be in the sole discretion of the Company and will be in such form as to allow the Company immediate access to the funds in the event of default by the CEP.

Florida Statute 377.709(4) requires a local government to refund Early Capacity Payments should a Municipal Solid Waste Facility owned, operated by or on the behalf of the local government be abandoned, closed down or rendered illegal. Therefore a utility may not require risk-related guarantees from a Municipal Solid Waste Facility as required In FPSC Rule 25-17.0832 (2)(c) and (3)(e)(8), F. A. C. However, at its option, a Municipal Solid Waste Facility may provide such risk-related guarantees.

4. Additional Criteria:

- a. The CEP shall provide monthly generation estimates by December 1 for the next calendar year; and
- The CEP shall promptly update its yearly generation schedule when any changes are determined necessary; and
- The CEP shall agree to reduce generation or take other appropriate action as requested by the Company for safety reasons or to preserve system integrity; and
- d. The CEP shall coordinate scheduled outages with the Company;
- The CEP shall comply with the reasonable requests of the Company regarding daily or hourly communications.

DELIVERY VOLTAGE ADJUSTMENT: Energy Payments to CEPs within the Company's service territory shall be adjusted according to the delivery voltage by the following multipliers:

Rate Schedule	Adjustment Factor	
RS, GS	1.0525	
GSD, SBF	1.0488	
IS, SBI	1.0178	

Continued to Sheet No. 8.308

ISSUED BY: N. G. Tower, President DATE EFFECTIVE: January 1, 2018

Attachment A Page 44 of 104

Docket No. 20180082-EQ Date: May 23, 2018



ORIGINAL SHEET NO. 8.308

METERING REQUIREMENTS: CEPs within the territory served by the Company shall be required to purchase from the Company the necessary hourly recording meters to measure their energy production. Unless special circumstances warrant, meters shall be read at monthly intervals on the approximate corresponding day of each meter reading period. Energy purchases from CEPs outside the territory served by the Company shall be measured as the quantities scheduled for interchange to the Company by the entity delivering firm capacity and energy to the Company.

BILLING OPTIONS: The CEP, upon entering into a contract for the sale of Contracted Capacity and Associated Energy or prior to delivery of As-Available Energy to the Company, shall elect to make either simultaneous purchases from the interconnecting utility and sales to the Company or net sales to the Company. The billing option elected may only be changed:

- when the CEP selling As-Available Energy enters into a negotiated contract or Standard Offer Contract for the sale of firm capacity and energy; or
- when a firm capacity and energy contract expires or is lawfully terminated by either the EP, or the Company; or
- when the CEP is selling As-Available Energy and has not changed billing methods within the last 12 months; and
- 4. when the election to change billing methods will not contravene the provisions of FPSC Rule 25-17.0832, F.A.C., or any contract between the CEP and the Company.

If the CEP elects to change billing methods in accordance with FPSC Rule 25-17.082, F.A.C., such a change shall be subject to the following provisions

- 1. upon at least 30 days advance written notice to the Company; and
- upon the installation by the Company of any additional metering equipment reasonably required to effect the change in billing methodology and upon payment by the CEP for such metering equipment and its installation; and
- upon completion and approval by the Company of any alterations to the interconnection reasonably required to effect the change in billing methodology and upon payment by the CEP for such alterations

Should the CEP elect the Simultaneous Purchases and Sales billing option, purchases of electric service by the CEP from the interconnecting utility shall be billed at the retail rate schedule under which the CEP load would receive service as a customer of the utility; sales of electricity delivered by the CEP to the purchasing utility shall be purchased at the utilities avoided capacity and energy rates, where applicable, in accordance with FPSC Rules 25-17.0825 and 25-17.0832, F.A.C.



SECOND REVISED SHEET NO. 8.312 CANCELS FIRST REVISED SHEET NO. 8.312

Continued from Sheet No. 8.308

Should the CEP elect a Net Billing Arrangement, the hourly net capacity and energy sales delivered to the purchasing utility shall be purchased at the utility's avoided capacity and energy rates, where applicable, in accordance with FPSC Rules 25-17.0825 and 25-17.0832, F.A.C. Purchases from the interconnecting utility shall be billed at the retail rate schedule, under which the CEP load would receive service as a customer of the utility.

Although a billing option may be changed in accordance with FPSC Rule 25-17.082, F.A.C., the Contracted Capacity may only change through mutual negotiations satisfactory to the CEP and the Company.

Basic Service charges that are directly attributable to the purchase of firm capacity and energy from the CEP are deducted from the CEP's total monthly payment. A statement covering the charges and payments due the CEP is rendered monthly and payment normally is made by the 20th business day following the end of the Monthly Period.

CHARGES/CREDITS TO THE CEP:

 Basic Service Charges: A monthly Basic Service Charge will be rendered for maintaining an account for the CEP engaged in either an As-Available Energy or firm capacity and energy transaction and for other applicable administrative costs. Actual charges will depend on how the CEP is interconnected to the Company.

CEPs not directly interconnected to the Company, will be billed \$990 monthly as a Basic Service Charge.

Monthly Basic Service charges, applicable to CEPs directly interconnected to the Company, by Rate Schedule are:

RATE SCHEDULE	BASIC SERVICE CHARGE (\$)	RATE SCHEDULE	BASIC SERVICE CHARGE (\$)		
RS	15.00				
GS	18.00	GST	20.00		
GSD (secondary)	30.00	GSDT (secondary)	30.00		
GSD (primary)	130.00	GSDT (primary)	130.00		
GSD (subtrans.)	990.00	GSDT (subtrans.)	990.00		
SBF (secondary)	55.00	SBFT (secondary)	55.00		
SBF (primary)	155.00	SBFT (primary)	155.00		
SBF (subtrans.)	1,015.00	SBFT (subtrans.)	1,015.00		
IS (primary)	622.00	IST (primary)	622.00		
IS (subtrans.)	2,372.00	IST (subtrans.)	2,372.00		
SBI (primary)	647.00				
SBI (subtrans.)	2,397.00				
Continued to Sheet No. 8.314					

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE: November 1, 2013



FIRST REVISED SHEET NO. 8.314 CANCELS ORIGINAL SHEET NO. 8.314

If CEP takes service under Rate Rider GSLM-2 or GSLM-3, an additional Basic Service Charge of \$200.00 will apply.

When appropriate, the Basic Service Charge will be deducted from the CEP's monthly payment. A statement of the charges or payments due the CEP will be rendered monthly. Payment normally will be made by the 20th business day following the end of the billing period.

- 2. Interconnection Charge for Non-Variable Utility Expenses: The CEP shall bear the cost required for interconnection including the metering. The CEP shall have the option of payment in full for interconnection or make equal monthly installment payments over a 36 month period together with interest at the rate then prevailing for 30 days highest grade commercial paper; such rate to be determined by the Company 30 days prior to the date of each payment.
- 3. Interconnection Charge for Variable Utility Expenses: The CEP shall be billed monthly for the cost of variable utility expenses associated with the operation and maintenance of the interconnection. These costs 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 CEP with respect to other Customers with similar load characteristics.
- 4. Taxes and Assessments: The CEP shall be billed monthly an amount equal to the taxes, assessments, or other impositions, if any, for which the Company is liable as a result of its purchases of firm capacity and energy produced by the CEP.
 - If the Company obtains any tax savings as a result of its purchases of firm capacity and energy produced by the CEP, which tax savings would not have otherwise been obtained, those tax savings shall be credited to the CEP.
- 5. Emission Allowance Clause: Subject to approval by the FPSC, the CEP shall receive a monthly credit, to the extent the Company can identify the same, equal to the value, if any, of any reduction in the number of air emission allowances used by the Company as a result of its purchase of firm capacity and energy produced by the EP; provided that no such credit shall be given if the cost of compliance associated with air emission standards is included in the determination of full avoided cost.

TERMS OF SERVICE:

 It shall be the CEP's responsibility to inform the Company of any change in its electric generation capability.

ISSUED BY: G. L. Gillette, President DATE EFFECTIVE: November 1, 2013



ORIGINAL SHEET NO. 8.316

- Any electric service delivered by the Company to the CEP shall be metered separately and billed under the applicable retail rate schedule and the terms and conditions of the applicable rate schedule shall pertain.
- A billing security deposit will be required in accordance with FPSC Rules 25-17.082(5) and 25-6.097, F.A.C., and the following:
 - a. In the first year of operation, the security deposit should be based upon the singular month in which the CEP's projected purchases from the utility exceed, by the greatest amount, the utility's estimated purchases from the CEP. The security deposit should be equal to twice the amount of the difference estimated for that month. The deposit should be required upon interconnection.
 - b. For each year thereafter, a review of the actual sales and purchases between the CEP and the utility shall be conducted to determine the actual month of maximum difference. The security deposit shall be adjusted to equal twice the greatest amount by which the actual monthly purchases by the CEP exceed the actual sales to the utility in that month.
- The Company will, under the provisions of this Schedule, require an agreement with the CEP upon the Company's filed Standard Offer Contract.
- Service under this rate schedule is subject to the rules and regulations of the Company and the FPSC.

SPECIAL PROVISIONS:

- Negotiated contracts deviating from the above standard rate schedule are allowable provided they are agreed to by the Company and approved by the FPSC
- 2. In accordance with the provision in FPSC Rule 25-17.0883, F.A.C., the Company is required to provide transmission and distribution service to enable a retail customer, at that customer's request, to transmit electrical power generated at one location to the customer's facilities at another location when provision of such service and its associated charges, terms, and other conditions are not reasonably projected to result in higher cost of electric service to the Company's general body of retail and wholesale Customers or adversely affect the adequacy or reliability of electric service to all Customers.



ORIGINAL SHEET NO. 8.318

A determination of whether or not such service is likely to result in higher cost electric service will be made by the Company by evaluating the results of an appropriately adjusted FPSC approved cost effectiveness methodology, in addition to other modeling analyses.

- In accordance with FPSC Rule 25-17.089, F.A.C., upon request by a CEP, the Company shall provide transmission service in accordance with its OATT to wheel As-Available Energy or firm capacity and energy produced by the CEP from the CEP to another electric utility.
- The rates, terms, and conditions for any transmission and ancillary services provide to the CEP shall be those approved by the FERC and contained in the Company's OATT.
- 5. A CEP may apply for transmission and ancillary services from the Company in accordance with the Company's OATT. Requests for service must be submitted on the Company's Open Access Same-Time Information System ("OASIS"). The Company's contact person, phone number and address is posted and updated on the OASIS and can be viewed by the public on the Internet at the address: http://www.enx.com/FOA_Contacts.html. A copy of the Company's OATT is also posted at the address: http://www.enx.com/FOA/teco home.html.
- If the CEP is located outside of the Company's transmission area, then the CEP
 must arrange for long term firm 3rd-party transmission, ancillary services and an
 Interconnection Agreement on all necessary external transmission paths for the term
 of the contract.

PROCEDURE FOR PROCESSING STANDARD OFFER CONTRACTS: Within 60 days of the receipt of a signed, completed Standard Offer Contract, the Company shall either accept and sign the Standard Offer Contract and return it within 5 days to the CEP or petition the Commission not to accept the Standard Offer Contract and provide justification for the refusal.

All Standard Offer Contracts received will be given equal consideration and each will be reviewed in accordance with the Company's Evaluation Procedure for Standard Offer Contracts. The criteria and procedure used to evaluate Standard Offer Contracts are attached to the Standard Offer Contract as Appendix I.



ORIGINAL SHEET NO. 8.322

Each delivered Standard Offer Contract should be clearly labeled "Standard Offer Contract" and shall only be received at the Company's main business address:

Tampa Electric Company c/o Manager - Wholesale Contracts, Wholesale Marketing and Sales 702 North Franklin Street (33602) P. O. Box 111 Tampa, Florida 33601

Certified mail will be the preferred means of Standard Offer Contract delivery.

Each eligible Standard Offer Contract will be evaluated as to its technical reliability, viability and financial stability, as well as other relevant information, in accordance with FPSC Rule 25-17.0832, F.A.C.

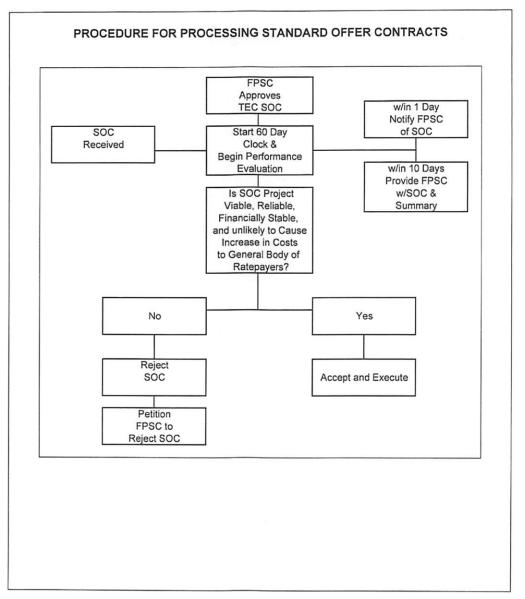
The Company will select and accept Standard Offer Contracts, after the evaluation process, which have convincingly demonstrated that their project is financially and technically viable and that the Contracted Capacity and Associated Energy would be available by the date specified in the Standard Offer Contract.

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: May 22, 2007



ORIGINAL SHEET NO. 8.324



ISSUED BY: C. R. Black, President

DATE EFFECTIVE: May 22, 2007

Date: May 23, 2018





EIGHTH-NINTH REVISED SHEET NO. 8.326 CANCELS SEVENTH EIGHTH **REVISED SHEET NO. 8.326**

DATE EFFECTIVE: July 13, 2017

RATE SCHEDULE COG-2 TABLE OF APPENDICES

APPENDIX	TITLE	SHEET NO.
Α	VALUE OF DEFERRAL METHODOLGY	8.328
В	METHODOLOGY TO BE USED IN THE CALCULATION OF AVOIDED ENERGY COST	8.344
С	 2021-2023 COMBUSTION TURBINE Minimum Performance Standard Parameters for Avoided Unit Capacity Costs Exemplary Capacity Payment Schedules Parameters for Avoided Unit Energy Costs 	8.406
D	RESERVED FOR FUTURE USE	-
E	RESERVED FOR FUTURE USE	-
F	RESERVED FOR FUTURE USE	-

ISSUED BY: G. L. Gillette N. G. Tower,

President

Docket No. 20180082-EQ Attachment A
Date: May 23, 2018 Page 52 of 104



ORIGINAL SHEET NO. 8.328

RATE SCHEDULE COG-2 APPENDIX A VALUE OF DEFERRAL METHODOLOGY

Appendix A provides a detailed description of the methodology used by the Company to calculate the monthly value of deferring the Designated Avoided Unit referred to in Rate Schedule COG-2. When used in conjunction with the current FPSC-approved cost parameters associated with each Designated Avoided Unit contained in Appendices C through E, the CEP may determine the applicable value of deferral capacity payment rate associated with the timing and operation of its particular facility should the CEP enter into a Standard Offer Contract with the Company.

Also contained in Appendix A is a discussion of the types and forms of surety bond requirements or equivalent assurance of repayment of early, Levelized, Early Levelized, or front-end loaded Other Capacity Payments acceptable to the Company in the event of contractual default by the CEP.

CALCULATION OF VALUE OF DEFERRAL: FPSC Rule 25-17.0832(6), F.A.C., specifies that avoided capacity costs, in dollars per kilowatt per month, associated with firm capacity sold to a utility by the CEP pursuant to the utility's Standard Offer shall be defined as the value of a year-by-year deferral of the Designated Avoided Unit and shall be calculated as follows:

$$VAC_m = 1/12 [KI_n (1-R_p) / (1-R_p^L) + O_n]$$

FPSC Rule 25-17.0832(6)(a), F.A.C., specifies that, beginning with the in-service date of the Company's Designated Avoided Unit, for a one year deferral:

VAC_m = Company's monthly value of avoided capacity, \$/kW/month, for each month of year n;

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 value to the middle of the first year;

Docket No. 20180082-EQ Attachment A
Date: May 23, 2018 Page 53 of 104



ORIGINAL SHEET NO. 8.332

- In = total direct and indirect cost, in mid-year \$/kW including AFUDC but excluding CWIP, of the Designated Avoided Unit(s) with an in-service date of year n, including all identifiable and quantifiable costs relating to the construction of the Designated Avoided Unit that would have been paid had the Designated Avoided Unit(s) been constructed;
- On = total fixed operation and maintenance expense for the year n, in mid-year \$/kW/year, of the Designated Avoided Unit(s);
- i_p = annual escalation rate associated with the plant cost of the Designated Avoided Unit(s);
- i_o = annual escalation rate associated with the operation and maintenance expense of the Designated Avoided Unit(s);
- r = annual discount rate, defined as the Company's incremental after tax cost of capital;
- L = expected life of the Designated Avoided Unit(s); and
- $R_P = (1 + i_p) / (1 + r)$
- n = year for which the Designated Avoided Unit is deferred starting with its original anticipated in-service date and ending with the termination of the contract for the purchase of firm capacity and energy.

CALCULATION OF EARLY CAPACITY PAYMENTS: FPSC Rule 25-17.0832(6)(b), F.A.C., specifies that, normally, payment for firm capacity shall not commence until the in-service date of the Designated Avoided Unit(s). At the option of the CEP, however, the Company may begin making Early Capacity Payments consisting of the fixed operation and maintenance expense and the capital cost component of the value of a year-by-year deferral of the Designated Avoided Unit(s). When such Early Capacity Payments are elected, capacity payments shall be paid monthly commencing no earlier than the Commercial In-Service date of the CEP, and shall be calculated as follows:

$$A_m = [A_c(1 + i_p)^{(m-1)} + A_o(1 + i_o)^{(m-1)}]/12$$
 for $m = 1$ to t



ORIGINAL SHEET NO. 8.334

Beginning with the earliest avoidance date of the Company's Designated Avoided Unit(s), for a one year deferral:

- A_m = monthly early capacity payments to be made to the CEP for each month of the contract year n, in \$/kW/month, starting no earlier than the in-service date of the CEP's generating facility;
- m = year for which early capacity payments to the CEP are made;
- t = the term, in years, of the contract for the purchase of firm capacity if early capacity payments commence in year m;

$$A_c = F[(1 - R_p) / (1 - R_p^t)]$$

Where:

F= the cumulative present value, in the year contractual payments will begin, 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 Designated Avoided Unit(s);

$$A_o = G[(1 - R_o) / (1 - R_o^t)]$$

Where:

the cumulative present value in the year that the contractual payments will begin, 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 Designated Avoided Unit(s).

$$R_0 = (1 + i_0) / (1 + r)$$

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: May 22, 2007



FIRST REVISED SHEET NO. 8.336 CANCELS ORIGINAL SHEET NO. 8.336

Continued from Sheet No. 8.334

CALCULATION OF LEVELIZED AND EARLY LEVELIZED CAPACITY PAYMENTS: FPSC Rule 25-17.0832(6)(c), F.A.C., specifies that, Monthly Levelized and Early Levelized Capacity Payments shall be calculated as follows:

$$P_L = F/12 \{r / [1 - (1 + r)^{-t}]\} + O$$

Where:

P_L = the monthly levelized capacity payment, starting on or prior to the in-service date of the Designated Avoided Unit(s);

O = the monthly fixed operation and maintenance component of the capacity payments, calculated in accordance with FPSC Rule 25-17.0832, paragraph 6(a) for Levelized Capacity Payments or with paragraph 6(b) for Early Levelized Capacity Payments, F.A.C.

Currently approved parameters for each Designated Avoided Unit applicable to the formulas above are found in Appendices C through F.

CALCULATION OF MONTHLY AVAILABILITY AND CAPACITY FACTOR: Pursuant to FPSC Rule 25-17.0832, F.A.C., and Docket No. 891049-EU, the CEP must meet or exceed, on a monthly basis, the MPS of the Company's Designated Avoided Unit(s) as described in Appendices C through F of COG-2 in order to receive monthly capacity payments. At the end of each Monthly Period, beginning with the Monthly Period specified in Paragraph 6.b.ii of the Company's Standard Offer Contract, the Company will calculate the CEP's Monthly Availability and Monthly Capacity Factor.

REPAYMENT OF EARLY CAPACITY PAYMENTS: FPSC Rule 25-17.0832(3)(c), F.A.C., requires that when early, levelized, early levelized, and front-end loaded capacity payments are elected, the CEP must provide a security deposit for assurance of repayment of Early Capacity Payments in the event the CEP is unable to meet the terms and conditions of its contract. Depending on the nature of the CEP's operation, financial health and solvency of the CEP or its guarantor, if any, and its ability to meet the terms and conditions of the Company's Standard Offer Contract; one of the following may constitute an equivalent assurance of repayment:

Continued to Sheet No. 8.338



ORIGINAL SHEET NO. 8.338

- cash deposited in an interest bearing escrow account mutually acceptable to the Company and the EP; or
- an unconditional and irrevocable direct pay letter of credit in form and substance satisfactory to the Company; or
- 3. a performance bond in form and substance satisfactory to the Company.

The form of security required will be in the sole discretion of the Company and will be in such form as to allow the Company immediate access to the funds in the event that the CEP fails to meet the terms and conditions of its contract

The Company will cooperate with each CEP applying for Capacity Payments under Capacity Payment Options 2, 3, 4, or 5 to determine the exact form of an "equivalent assurance of repayment" to be required based on the particular aspects of the CEP. The Company will endeavor to accommodate an equivalent assurance of repayment which is in the best interests of both the CEP and the Company's ratepayers.

Florida Statute 377.709(4), requires the local government to refund Early Capacity Payments should a Municipal Solid Waste Facility owned, operated by or on behalf of a local government be abandoned, closed down or rendered illegal, therefore a utility may not require risk-related guarantees from a Municipal Solid Waste Facility as required in FPSC Rule 25-17.0832(2)(c) and (3)(e)(8), F.A.C. However, at its option, a Municipal Solid Waste Facility may provide such risk-related guarantees.

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: May 22, 2007



SECOND REVISED SHEET NO. 8.344 CANCELS FIRST REVISED SHEET NO. 8.344

RATE SCHEDULE COG-2 APPENDIX B METHODOLOGY TO BE USED IN THE CALCULATION OF AVOIDED ENERGY COST

The methodology the Company has implemented in order to determine the appropriate avoided energy costs and any payments thereof to be rendered to CEPs is consistent with the provisions of Order No. 23625 in Docket No. 891049-EU, issued on October 16, 1990; the Amendment of FPSC Rules 25-17.080 et seq, F.A.C.

The avoided energy costs methodology used to determine payments to CEPs on an hourly basis is based on the incremental cost of fuel using the average price of replacement fuel purchased in excess of contract minimums. Generally, avoided energy costs are defined to include incremental fuel, identifiable variable operation and maintenance expenses, identifiable variable purchased power costs and an adjustment for line losses reflecting delivery voltage.

Under normal conditions the Company will have additional generation resources available which can carry its native load and firm interchange sales without the CEP's contribution. When this is the case and the CEP is present, the incremental fuel portion of the avoided energy cost is equal to the difference between the Company's production cost at 2 load levels, with and without the CEP's contribution.

In those situations where the Company's maximum available generation (not including its minimum operating reserves) is insufficient to carry its native load and firm interchange sales, in the absence of the CEP contribution, the Company's incremental fuel component of the avoided energy cost will be determined by:

- system lambda if "off-system purchases" are not being made and all available generation has been dispatched; or
- the highest incremental cost of any "off-system purchases" that are being made for native load.

ISSUED BY: G. L. Gillette, President DATE EFFECTIVE: June 19, 2012

Docket No. 20180082-EQ

Date: May 23, 2018



FIRST REVISED SHEET NO. 8.352 CANCELS ORIGINAL SHEET NO. 8.352

Examples of these situations are found in Exhibits 1-4.

The As-Available Avoided Energy Cost, as determined by this methodology, is priced at a level not to exceed the Company's incremental fuel and identifiable variable operating and maintenance (O&M) expenses including the cost of any off-system purchases for native load.

PARAMETERS FOR DETERMINING AS-AVAILABLE AVOIDED ENERGY COSTS: The Company uses production costing methods for determining avoided energy cost payments to CEPs. Computerized production costing is accomplished on an hourly basis. The parameters used are as follows:

- 1. The system load is the actual system load at the Hour Ending with the clock hour (HE).
- The first allocation of load for production costing is to those units that are base loaded at a certain level for operating reasons. The remainder of the load is allocated to units available for economic dispatch through the use of incremental cost curves.
- The fuel costs associated with each of the Company's units operating at its allocated level of generation is determined by using the individual units input/output equation, its heat rate performance factor and the composite price of supplemental fuel.
- 4. The Company's own production cost for each hour of operation at a particular generation level equals the sum of the individual units' fuel cost for that hour. The production cost, thus determined, consists of the composite price of replacement fuel based on supplemental purchases and the incremental heat rate for the generating system.
- 5. The Company's total cost equals its own production cost (paragraph 4 above), identified variable O&M, plus the cost of any off-system purchases to serve native load.
- 6. Native load includes all firm and non-firm retail load.
- The cost of off-system firm and non-firm variable purchases is defined as the highest energy cost energy block purchased for native load during the hour.
- 8. Firm interchange sales are included in production cost calculations.

ISSUED BY: G. L. Gillette, President DATE EFFECTIVE: June 19, 2012



SECOND REVISED SHEET NO. 8.356 CANCELS FIRST REVISED SHEET NO. 8.356

Continued from Sheet No. 8.352

- The Company's Maximum Available Generation in this methodology is defined as the maximum capacity less operating reserve requirements.
- 10. The "Standard Tariff Block" is defined to be an x-megawatt (XMW) block equivalent to the combined actual hourly generation delivered to the Company from all CEPs making As-Available Energy sales to the Company. In the absence of metered information on exports from the CEP making As-Available Energy sales to the Company, an estimate of the hourly exports from that Facility will be used, rounded to the nearest 5 MW and then added to the sum of all other known As-Available Energy purchases for that hour.

Continued to Sheet No. 8.376

ISSUED BY: G. L. Gillette, President DATE EFFECTIVE: June 25, 2013



SECOND REVISED SHEET NO. 8.376 CANCELS FIRST REVISED SHEET NO. 8.376

Continued from Sheet no. 8.356

SUPPLEMENTAL FUEL:

The term "supplemental fuel" refers to the variable cost for additional fuel to be delivered to Tampa Electric's generation facilities. The supplemental fuel price includes the cost of the fuel commodity at market prices plus the variable cost to deliver the commodity to the generation facility. Market prices for coal, oil and natural gas are based on published indexes or current market activity for commodities of comparable quality to those used in Tampa Electric's generation facilities.

AVOIDED ENERGY COST CALCULATIONS:

Example: 1 Off-system purchases are not being made. The Company's generation is capable of carrying its native load and firm sales.

The procedure used to deterministically calculate the incremental avoided energy cost associated with As-Available Energy on an hour by hour basis when no off-system purchases are taking place is as follows:

The 1st calculation determines the Company's production cost without the benefit of cogeneration.

Continue to Sheet No. 8.378

ISSUED BY: G. L. Gillette, President DATE EFFECTIVE: July 13, 2010



FIRST REVISED SHEET NO. 8.378 CANCELS ORIGINAL SHEET NO. 8.378

In these instances, the \$/MWH price that the Company will pay the CEPs is determined by calculating the production cost at 2 load levels.

The 2nd calculation determines the Company's production cost with the benefit of cogeneration.

After each of the 2 calculations are made, the avoided energy cost rate is calculated by dividing the difference in production cost between the 2 calculations described above by the "Standard Tariff Block." [The "Standard Tariff Block" is defined to be an XMW block equivalent to the combined actual hourly generation delivered to the Company from all CEPs making As-Available Energy sales to the Company. In the absence of metered information on exports from the CEP making As-Available Energy sales to the Company, an estimate of the hourly exports from that Facility will be used, rounded to the nearest 5 MWs and then added to the sum of the other as-available purchases for that hour. Prior to the in-service date of the appropriate Designated Avoided Unit, firm energy sales will be equivalent to as-available sales. Beginning with the in-service date of the appropriate Designated Avoided Unit(s), firm energy purchases from CEPs shall be treated as as-available energy for the purposes of determining the XMW block size only during the periods that the appropriate Designated Avoided Unit would not be operated.] The difference in production costs divided by the XMW block determines the As-Available Energy Payment Rate (AEPR) for the hour. The AEPR will be applied to the "Actual" CEP MWs purchased during the hour to determine payment to each CEP supplying As-Available Energy, and each CEP supplying firm energy in those instances where the avoided unit would not have been operated during the hour. See Exhibit 1.

Example 2 Off-system purchases are not being made. The Company's generation can only carry its native load and firm sales with the CEP contribution.

The procedure used to deterministically calculate the incremental avoided energy cost associated with As-Available Energy on an hour by hour basis whenever the Company is not purchasing off-system interchange is as follows:

In this instance, the avoided energy cost that the Company will pay the CEPs will be determined by calculating the production cost at the last MW load level. The avoided energy cost is the production cost at system lambda. See Exhibit 2.

In the situation where the Company's generation is not fully dispatched, and additional generation capability is available to price a portion of the CEP block, then the CEP block will be priced at a combination of the difference between the Company's production cost at 2 load levels as previously defined and at system lambda. See Exhibit 3.

ISSUED BY: G. L. Gillette, President DATE EFFECTIVE: June 19, 2012

Docket No. 20180082-EQ Attachment A
Date: May 23, 2018 Page 62 of 104



FIRST REVISED SHEET NO. 8.382 CANCELS ORIGINAL SHEET NO. 8.382

Example 3 Off-system purchases are being made to serve native load.

The procedure used to deterministically calculate the incremental avoided energy cost associated with As-Available Energy on an hour by hour basis whenever the Company is making off-system purchases for native load is as follows:

In this instance, the \$/MWH price that the Company will pay is determined by applying the highest incremental cost of the off-system purchases to the CEP block. See Exhibit 4.

DELIVERY VOLTAGE ADJUSTMENT: A credit for avoided line losses reflecting the voltage at which generation by the CEPs is received is included in the Company's procedure for the determination of incremental avoided energy cost associated with As-Available Energy. Tampa Electric uses the adjustment factors shown on Sheet No. 8.306 for calculating the compensation for avoided line losses at the transmission and distribution system voltage levels based on the appropriate classification of service.

Example: (Firm Standby Time-of-Day)

Actual Incremental Hourly Avoided Energy Cost is: \$14.80/MWH

Adjustment Factor for Line Losses: 1 0561

The Actual Incremental Hourly Avoided Energy Cost adjusted for avoided line losses associated with As-Available Energy provided to the Company would then become, in this example, \$15.63/MWH.

"IDENTIFIABLE" INCREMENTAL VARIABLE O&M: Tampa Electric's methodology for determining incremental avoided energy costs associated with As-Available Energy includes a procedure for calculating "identifiable" incremental variable O&M (VOM) expense.

A VOM rate (\$/MWH) is calculated annually for each Tampa Electric generating group. A generating group comprises units of the same type with similar size and operating characteristics (e.g., Big Bend coal units, Bayside CCs, Polk IGCC, all 180 MW CTs, etc.). The VOM rate for a generating group is calculated by dividing the previous year's identifiable VOM expenses for the group by the previous year's generation in megawatt-hours for the group.

ISSUED BY: G. L. Gillette, President DATE EFFECTIVE: June 19, 2012



ORIGINAL SHEET NO. 8.392

The incremental avoided energy cost associated with As-Available Energy is adjusted in each hour by the applicable VOM group rate(s) for the generation being avoided in that hour.				
]			

ISSUED BY: C. R. Black, President

DATE EFFECTIVE: May 22, 2007



FIRST REVISED SHEET NO. 8.394 CANCELS ORIGINAL SHEET NO. 8.394

RESERVED FOR FUTURE USE

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE: July 13, 2010

Attachment A Page 65 of 104

Docket No. 20180082-EQ Date: May 23, 2018



SECOND REVISED SHEET NO. 8.396 CANCELS FIRST REVISED SHEET NO. 8.396

EXHIBIT 1

Example: Off-system purchases are not being made. The Company's generation is capable of carrying its native load and firm sales.

Given:

Actual CEP Energy = 50 MWs
The Company's Maximum Available Generation = 1560 MWs
Native Load = 1550 MWs
Firm Sales = 10 MWs

First Calculation (WITHOUT CEP):

Production Cost at 1560 MWs = \$20,275/hour

Second Calculation (WITH CEP):

Production Cost at 1510 MWs = \$19,500/hour

Third Calculation (CEP Rate \$/MWH):

Actual Hourly Avoided Energy Cost = (\$20,275/hour - \$19,500/hour) / (50 MW)

or

As-Available Energy Payment Rate (AEPR) = \$15.50/MWH

ISSUED BY: G. L. Gillette, President DATE EFFECTIVE: June 19, 2012



SECOND REVISED SHEET NO. 8.398 CANCELS FIRST REVISED SHEET NO. 8.398

EXHIBIT 2

Example: Off-system purchases are not being made. The Company's generation can carry its native load and firm sales only with the CEP contribution.

Given:

Actual CEP Energy = 50 MWs
The Company's Maximum Available Generation = 1460 MWs
Native Load = 1500 MWs
Firm Sale = 10 MWs

First Calculation:

Production Cost at 1460 MWs = \$18,900/hour

Second Calculation:

Production Cost at 1459 MWs = \$18,882.50/hour

Third Calculation (CEP Rate \$/MWH):

Actual Hourly Avoided Energy Cost at 1 MW (system lambda) = (\$18,900/hour - \$18,882.50/hour) / (1 MW)

or

As-Available Energy Payment Rate (AEPR) = \$17.50/MWH

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE: June 19, 2012

In this example, system lambda is the production cost for the last MW segment to meet the load after dispatching all available generation capacity.

Docket No. 20180082-EQ Attachment A
Date: May 23, 2018 Page 67 of 104



SECOND REVISED SHEET NO. 8.402 CANCELS FIRST REVISED SHEET NO. 8.402

EXHIBIT 3

Example:

Off-system purchases are not being made to serve native load and firm sales. Available generation capacity is not fully dispatched. Without the CEP's contribution, the Company's native load and firm sales can be carried only with additional power purchases.

Given:

Actual CEP Energy = 50 MWs
The Company's Maximum Available Generation = 1530 MWs
The Company's Actual Generation = 1500 MWs
Native Load = 1540 MWs
Firm Sale = 10 MWs

Step 1 (Calculations for First 30 MWs)

First Calculation (Without CEP):

Production Cost at 1530 MWs = \$20,590/hour

Second Calculation (With CEP):

Production Cost at 1500 MWs = \$20,050/hour

Third Calculation:

Actual Hourly Avoided Energy Cost at 30 MWs = (\$20,590/hour) - (\$20,050/hour) = \$540/hour

Step 2 (Calculations for Remaining 20 MWs)

First Calculation:

Production Cost at 1530 MWs = \$20,590/hour

Second Calculation:

Production Cost at 1529 MWs = \$20,571.50/hour

Third Calculation:

Actual Hourly Avoided Energy Cost at 1 MW (system lambda) for 20 MWs = (\$20,590/hour - \$20,571.50/hour) X (20 MWs) = \$370/hour

Step 3 (Calculation of Composite Rate for Total 50 MW Block)

Composite Actual Hourly Avoided Energy Cost of 50 MW Block = (\$540 + \$370) / 50 MW or

As-Available Energy Payment Rate (AEPR) = \$18.20/MWH

¹ In this example, system lambda is the production cost for the last MW segment to meet the load after dispatching all available generation capacity.

ISSUED BY: G. L. Gillette, President DATE EFFECTIVE: June 19, 2012

Docket No. 20180082-EQ

Date: May 23, 2018



FIRST REVISED SHEET NO. 8.404 CANCELS ORIGINAL SHEET NO. 8.404

EXHIBIT 4

Example: Off-system purchases are being made. The Company's native load and firm sales can be carried only with additional purchase power.

Given:

Actual CEP Energy = 50 MWs
The Company's Maximum Available Generation = 1500 MWs
The Company's Actual Generation = 1500 MWs
Native Load = 1540 MWs
Firm Sales = 20 MWs
Off-System Purchase = 10 MWs Costing \$400/hour

Actual Incremental Hourly Avoided Energy Cost = \$400 / 10 MW

Or

As-Available Energy Payment Rate (AEPR) = \$40/hour

Off-System Purchase shall be the highest cost purchased energy block bought during the hour for native load.

ISSUED BY: G. L. Gillette, President DATE EFFECTIVE: June 19, 2012





EIGHTH-NINTH REVISED SHEET NO. 8.406
CANCELS SEVENTH-EIGHTH REVISED SHEET NO. 8.406

DATE EFFECTIVE: July 13, 2017

RATE SCHEDULE COG-2 APPENDIX C

2021-2023 COMBUSTION TURBINE

This Designated Avoided Unit is a 220-245 MW (winter rating) natural gas-fired combustion turbine with a May-JANUARY 1, 20212023, in-service date.

MINIMUM PERFORMANCE STANDARDS

In order to receive a Monthly Capacity Payment, all Contracted Capacity and Associated Energy provided by CEPs shall meet or exceed the following MPS on a monthly basis. The MPS are based on the anticipated peak and off-peak dispatchability, unit availability, and operating factor of the Designated Avoided Unit over the term of this Standard Offer Contract. The CEP's proposed generating facility ("the Facility") as defined in the Standard Offer Contract will be evaluated against the anticipated performance of a combustion turbine, starting with the first Monthly Period following the date selected in Paragraph 6.b.ii of the Company's Standard Offer Contract.

- Dispatch Requirements: The CEP shall provide peaking capacity to the Company on a firm commitment, first-call, on-call, as-needed basis. In order to receive a Contracted Capacity Payment for each calendar month that the Facility is to be dispatched, the CEP must meet or exceed both the minimum Monthly Availability and Monthly Capacity Factor requirements.
- 2. Dispatch Procedure: Commencing on the calendar day prior to the Facility In-Service Date or the Extended Facility In-Service Date, as applicable, and continuing each calendar day thereafter during the Term, by 7:00 A.M. EPT, the CEP shall electronically transmit a schedule ("Available Schedule") of the hour-by-hour amounts of Contracted Capacity expected to be available from the Facility the next day ("Committed Capacity"). Commencing on the calendar day prior to the Facility In-Service Date or the Extended Facility In-Service Date, as applicable, and continuing each calendar day thereafter during the Term, by 3:00 P.M. EPT, the Company shall electronically transmit the hour-by-hour amounts of Contracted Capacity that the Company desires the CEP to dispatch from the Facility the next day based on the Available Schedule supplied at 7:00 A.M. EPT by the CEP ("Dispatch Schedule"). The CEP's Available Schedule and the Company's Dispatch

Continued to Sheet No. 8.408

ISSUED BY: G. L. Gillette N. G. Tower,

President



FIRST REVISED SHEET NO. 8.408 CANCELS ORIGINAL SHEET NO. 8.408

Schedule for Fridays will include Saturday, Sunday, and Monday schedules. The CEP's Available Schedule and the Company's Dispatch Schedule during holiday periods will be similarly adjusted. The CEP shall control and operate the Facility in accordance with the Company's Dispatch Schedule. From time to time (i.e. during emergency conditions), the Company may be required to adjust the Dispatch Schedule or ignore scheduled levels altogether, however, each Party shall make reasonable efforts to minimize departures from the Dispatch Schedule.

- Automatic Generation Control: At the Company's discretion, the CEP will operate
 the Facility with Automatic Generation Control (AGC) equipment, speed governors,
 and voltage regulators in-service, except at such times when operational constraints
 of the equipment prevent AGC operation.
- 4. **Start-up Time:** Upon notification by the Company, the CEP's Facility shall provide its capacity within 15 minutes from a cold-start condition to maximum capacity.
- 5. Minimum Run Time: Minimum run time for the CEP's unit shall be 1 hour.

BASIS FOR MONTHLY CAPACITY PAYMENT CALCULATION:

1. Monthly Availability Factor: The Monthly Availability Factor of the CEP's generating facility will be calculated by averaging the Hourly Availability Factors for each hour of the Monthly Period. The Hourly Availability Factor may not exceed 100% and shall be defined as the hourly Committed Capacity expressed as a percentage of Contracted Capacity to the nearest whole percentile. The CEP is required to achieve a minimum Monthly Availability Factor of 90% in order to meet the MPS and be eligible to receive a Monthly Capacity Payment. Periods of Annual Planned Maintenance will be excluded from the calculation of the Monthly Availability Factor. For purposes of calculating the Monthly Availability Factor, the CEP's Committed Capacity may not exceed its Contracted Capacity.

ISSUED BY: C. R. Black, President DATE EFFECTIVE: July 29, 2008



FIRST REVISED SHEET NO. 8.414 CANCELS ORIGINAL SHEET NO. 8.414

- 2. Monthly Capacity Factor: In addition to the MPS for Monthly Availability, the CEP shall provide capacity into the Company's electric grid in order to meet or exceed a Monthly Capacity Factor of 80%. The Monthly Capacity Factor for the period April 1st through October 31st shall be defined as the sum of 80% of the Monthly Average On-peak Operating Factor plus 20% of the Monthly Average Off-peak Operating Factor. The Monthly Capacity Factor for the period November 1st through March 31st shall be defined as the sum of 90% of the Monthly Average On-peak Operating Factor plus 10% of the Monthly Average Off-peak Operating Factor.
 - a. Operating Factor: The CEP shall endeavor to provide capacity in the amount dispatched by the Company. The Company may at times request capacity in an amount that exceeds the Committed Capacity as declared by CEP the previous day.

However, the Operating Factor may not exceed 100% and shall be defined as the actual energy received during each hour that the CEP unit is dispatched by the Company divided by the lesser of the CEP's Committed Capacity or the capacity requested by the Company for that hour, expressed to the nearest whole percentile.

- b. Monthly Average On-peak Operating Factor: The monthly average of the Operating Factor for all hours the CEP unit has been dispatched during On-peak Hours will be termed the Monthly Average On-peak Operating Factor.
- c. Monthly Average Off-peak Operating Factor: The monthly average of the Operating Factor for all hours the CEP unit has been dispatched during Off-peak Hours will be termed the Monthly Average Off-peak Operating Factor.
- Off-Peak and On-Peak Hours: Those weekday hours occurring April 1 through October 31, from 12:00 noon to 9:00 p.m. and November 1 through March 31, from 6:00 a.m. to 10:00 a.m. and from 6:00 p.m. to 10:00 p.m. All other weekday hours and weekends shall be deemed Off-peak Hours including the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. The Company shall have the right to change such On-peak Hours by providing written notice to CEP a minimum of 90 calendar days prior to such change.

ISSUED BY: C. R. Black, President



FOURTH REVISED SHEET NO. 8.416 CANCELS THIRD REVISED SHEET NO. 8.416

Continued from Sheet No. 8,414

- 4. Annual Scheduled Maintenance: Each year the CEP shall prepare, coordinate, and provide by April 1st all planned maintenance with the Company. The Company will review and approve annual/major scheduled maintenance by July 1st for the balance of the current year and following calendar year. A maximum of 10 days (240 hours) each year for annual maintenance and a maximum of 4 weeks (672 hours) every fifteenth year for major maintenance will be allowed. Scheduled maintenance shall not be planned during January, July, August, or December. At the option of the CEP and with written consent from the Company, scheduled outage time may be utilized during any other months to improve the CEP's Availability and Capacity Factors and such scheduled outage hours will be disregarded from the Monthly Availability Factor and Capacity Factor calculations. However, once allowable maintenance hours have been utilized, all other hours during the year will be considered in Availability and Capacity Factor calculations.
- 5. Monthly Capacity Payment: Starting with the CEP's Commercial In-Service Date, for months when the CEP unit has been dispatched (provided that CEP has achieved at least a 90% Monthly Availability Factor), the Monthly Capacity Payment for each Monthly Period shall be calculated according to the following:
 - a. In the event that the Monthly Capacity Factor is less than 80%, no Monthly Capacity Payment shall be paid to the CEP. That is:

MCP= \$0

b. In the event that the Monthly Capacity Factor is greater than or equal to 80% but less than 90%, the Monthly Capacity Payment shall be calculated from the following formula:

MCP= [(BCC) x (.02 x (CF- 45))] x CC

Continued on Sheet No. 8.418

ISSUED BY: G. L. Gillette, President DATE EFFECTIVE: July 21, 2015

Docket No. 20180082-EQ

Date: May 23, 2018



ORIGINAL SHEET NO. 8.418

c. In the event that the Monthly Capacity Factor is greater than or equal to 90%, the Monthly Capacity Payment shall be calculated from the following formula:

MCP= (BCC) x CC

Where:

MCP = Monthly Capacity Payment in dollars.

BCC = Base Capacity Credit in \$/KW-Month (as exemplified by the

Payment Schedules included in this Appendix for the minimum

contract term under Capacity Payment Options 1, 2, 3 and 4.)

CC = Contracted Capacity in KW
CF = Monthly Capacity Factor; or

During April 1 - October 31:

= 80% x Monthly Average On-peak Operating Factor + 20% x Monthly Average Off-peak Operating Factor

During November 1 - March 31:

90% x Monthly Average On-peak Operating Factor +
 10% x Monthly Average Off-peak Operating Factor

6. Non-Dispatch Condition: The CEP may be entitled to a Monthly Capacity Payment (BCC x CC) even if the CEP's unit was not dispatched by the Company during a Monthly Period. In this instance however, in order to cover the Company's operating reserve criteria, the CEP unit must have achieved a minimum Monthly Availability Factor of 90% for the Monthly Period to be eligible to receive a Monthly Capacity Payment.

In the event the CEP unit is dispatched during one but not the other (On-peak vs. Off- peak) period during the month, the CEP's Monthly Average Operating Factor for the "non-dispatched" period will be set equal to the Monthly Average Operating Factor achieved during the "dispatched" period, for the purpose of calculating the Monthly Capacity Factor, as defined in Paragraph 2 above.

The CEP may be entitled to a Monthly Capacity Payment when the CEP's unit is out of service during the month for allowable scheduled maintenance in accordance with the Paragraph 4 above.

ISSUED BY: C. R. Black, President DATE EFFECTIVE: May 22, 2007

Attachment A Page 74 of 104

Docket No. 20180082-EQ Date: May 23, 2018





TENTH ELEVENTH REVISED SHEET NO. 8.422 CANCELS NINTH TENTH REVISED SHEET NO. 8.422

DATE EFFECTIVE: July 13, 2017

		Continued from Sheet No. 8.418	
PARAME	TERS	FOR AVOIDED CAPACITY COSTS	
		the in-service date (51/1/20212023) of the Company's De-245MW (Winter Rating) natural gas-fired Combustion Turk	
			VALUE
VACm	=	Company's monthly value of avoided capacity, \$/kW/month, for each month of year n	6.90 <u>4.95</u>
К	=	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 value to the middle of the first year	1.4181 <u>1.5213</u>
In	=	total direct and indirect cost, in mid-year \$/kW including AFUDC but excluding CWIP, of the Designated Avoided Unit(s) with an in-service date of year n, including all identifiable and quantifiable costs relating to the construction of the Designated Avoided Unit that would have been paid had the Designated Avoided Unit(s) been constructed	843.83 <u>590.03</u>
On	=	total fixed operation and maintenance expense for the year n, in mid-year \$/kW/year, of the Designated Avoided Unit(s);	13.49 <u>6.26</u>
İp	=	annual escalation rate associated with the plant cost of the Designated Avoided Unit(s)	2. <u>54</u> %
İo	=	annual escalation rate associated with the operation and maintenance expense of the Designated Avoided Unit(s);	2.4%
r =	=	discount rate, defined as the Company's incremental after tax cost of capital;	6.976 <u>7.080</u> %
		Continued to Sheet No. 4.424	

ISSUED BY: G. L. Gillette N. G. Tower,

President

Attachment A Page 75 of 104

Docket No. 20180082-EQ Date: May 23, 2018





TENTH-ELEVENTH REVISED SHEET NO. 8.424 CANCELS NINTH-TENTH REVISED SHEET NO. 8.424

DATE EFFECTIVE: July 13, 2017

	Continued from Sheet No. 8.422
L =	expected life of the Designated Avoided Unit(s); and 30
n =	year for which the Designated Avoided Unit is deferred starting with its original anticipated in-service date and ending with the termination of the contract for the purchase of firm capacity and energy.
Am =	monthly early capacity payments to be made to the CEP for each month of the contract year n, in \$/kW/month, if payments start in 20152018;
m =	Earliest year in which early capacity payments to the CEP 20172018* may begin;
F =	the cumulative present value, in the year contractual payments will begin, of the avoided capital cost component of capacity payments over the term of the contract which would have been made had capacity payments commenced with the anticipated in-service date of the Designated Avoided Unit(s);
t =	the term, in years, of the contract for the purchase of firm capacity if early capacity payments commence in year m;
* Actual value selected by the	es will be determined based on the capacity payment start date and contract term the CEP.
	Continued to Sheet No. 8.426

ISSUED BY: G. L. Gillette N. G. Tower,

President

Date: May 23, 2018





TENTH ELEVENTH REVISED SHEET NO. 8.426 CANCELS NINTH TENTH REVISED SHEET NO. 8.426

	2021 COMBUSTION TURBINE - AVOIDED UNIT							
	MONTH	HLY CAPACIT	Y PAYMENT	RATE (S/K	W-MONTH)			
	·	NON-LEVEL	LIZED PAYM	ENT OPTIO	NS			
		OPTION 1		OPT	ION 2			
	# F F F F F F F F F F F F F F F F F F F	NORMAL PAYMENT		EARLY P	AYMENT			
	TRACT EAR	Starting 5/1/21	Starting 5/1/20	Starting 5/1/19	Starting 5/1/18	Starting 5/1/17		
FROM	TO	\$/kW-mo	5/kW-mo	S/kW-mo.	5/kW-mo	S/kW-mo		
5/1/17	4/30/18				4.00	4.07 3.90		
5/1/18 5/1/19	4/30/19 4/30/20			5.23	4.60 4.71	3.74		
5/1/20	4/30/21		5.98	5.36	4.83	3.58		
5/1/21	4/30/22	6.90	6.13	5.49	4.95	3.43		
5/1/22	4/30/23	7.07	6.28	5.63	5.07	3.28		
5/1/23	4/30/24	7.25	6.44	5.76	5.20	3.15		
5/1/24	4/30/25	7.43	6.60	5.91	5.33	3.01		
5/1/25	4/30/26	7.61	6.76	6.05	5.46	2.89		
5/1/26	4/30/27	7.80	6.93	6.21	5.60	2.77		
5/1/27	4/30/28	7.99	7.10	6.36	5.73	2.65		
5/1/28	4/30/29	8.19	7.28	6.52	5.88	2.54		
5/1/29	4/30/30	8.39	7.46	6.68	6.02	2.43		
5/1/30	4/30/31	8.60	7.64	6.84	6.17	2.33		

ISSUED BY: G. L. GilletteN. G. Tower,

President

Docket No. 20180082-EQ

Date: May 23, 2018





TENTH_ELEVENTH_REVISED
SHEET NO. 8.426
CANCELS NINTH-TENTH_REVISED
SHEET NO. 8.426

2023 COMBUSTION TURBINE - AVOIDED UNIT MONTHLY CAPACITY PAYMENT RATE (S/KW-MONTH) NON-LEVELIZED PAYMENT OPTIONS

		OPTION 1			OPTION 2		
		NORMAL PAYMENT	EARLY PAYMENT				
CONTRACT YEAR		<u>Starting</u> <u>1/1/2023</u>	<u>Starting</u> 1/1/2022	<u>Starting</u> 1/1/2021	<u>Starting</u> 1/1/2020	<u>Starting</u> 1/1/2019	<u>Starting</u> 1/1/2018
FROM	TO	S/kW-mo	\$/kW-mo	S/kW-mo	S/kW-mo	S/kW-mo	S/kW-mo
-		-	-	-	-	-	
1/1/18	12/31/18	-		-	-	-	2.59
1/1/19	12/31/19	-			-	2.92	2.66
1/1/20	12/31/20	14			3.30	2.99	2.72
1/1/21	12/31/21	-		3.75	3.38	3.06	2.79
1/1/22	12/31/22	-	4.29	3.84	3.46	3.13	2.85
1/1/23	12/31/23	4.95	4.39	3.93	3.54	3.21	2.92
1/1/24	12/31/24	5.07	4.50	4.02	3.63	3.28	2.99
1/1/25	12/31/25	5.19	4.61	4.12	3.71	3.36	3.06
1/1/26	12/31/26	5.31	4.72	4.22	3.80	3.44	3.14
1/1/27	12/31/27	5.44	4.83	4.32	3.89	3.53	3.21
1/1/28	12/31/28	5.57	4.95	4.42	3.99	3.61	3.29
1/1/29	12/31/29	5.71	5.06	4.53	4.08	3.70	3.37
1/1/30	12/31/30	5.84	5.19	4.64	4.18	3.79	3.45
1/1/31	12/31/31	5.98	5.31	4.75	4.28	3.88	3.53
1/1/32	12/31/32	6.13	5.44	4.87	4.38	3.97	3.62

Continued to Sheet No. 8.427

ISSUED BY: G. L. Gillette N. G. Tower,

President





FIFTH SIXTH REVISED SHEET NO. 8.427
CANCELS FOURTH-FIFTH REVISED SHEET NO. 8.427

Continued from Sheet No. 8.426

•••••	MON	HLY CAPACIT			W-WONTH)				
		LEVELIZE	D PAYMEN	TOPTIONS					
		OPTION 3	OPTION 4						
		LEVELIZED NORMAL PAYMENT	ED L EARLY LEVELIZED PAYMETB						
	TRACT EAR	Starting 5/1/21	Starting Starting 5/1/20 5/1/19		Starting 5/1/18	Starting 5/1/17			
FROM	то	S/kW-mo	5/kW-mo.	S/kW-mo.	S/kW-mo.	S/kW-mo			
5/1/17	4/30/18					4.58			
5/1/18	4/30/19				5.13	4.59			
5/1/19	4/30/20			5.78	5.15	4.61			
5/1/20	4/30/21		6.56	5.80	5.17	4.62			
5/1/21	4/30/22	7.51	6.58	5.82	5.18	4.64			
5/1/22	4/30/23	7.53	6.61	5.85	5.20	4.66			
5/1/23	4/30/24	7.56	6.63	5.87	5.22	4.68			
5/1/24	4/30/25	7.59	6.66	5.89	5.24	4.70			
5/1/25	4/30/26	7.62	6.68	5.91	5.26	4.71			
5/1/26	4/30/27	7.65	6.71	5.94	5.29	4.73			
5/1/27	4/30/28	7.68	6.74	5.96	5.31	4.75			
5/1/28	4/30/29	7.71	6.77	5.98	5.33	4.77			
5/1/29	4/30/30	7.74	6.79	6.01	5.35	4.79			
5/1/30	4/30/31	7.77	6.82	6.04	5.38	4.82			

ISSUED BY: G. L. Gillette N. G. Tower,

President





FIFTH-SIXTH REVISED SHEET NO. 8.427
CANCELS FOURTH-FIFTH REVISED SHEET NO. 8.427

2023 COMBUSTION TURBINE - AVOIDED UNIT MONTHLY CAPACITY PAYMENT RATE (\$/KW-MONTH) LEVELIZED PAYMENT OPTIONS

		OPTION 3		-11	OPTION 4				
		LEVELIZED NORMAL PAYMENT	EARLY LEVELIZED PAYMENT						
CONTRACT YEAR		<u>Starting</u> <u>1/1/2023</u>	<u>Starting</u> 1/1/2022	<u>Starting</u> 1/1/2021	<u>Starting</u> 1/1/2020	<u>Starting</u> 1/1/2019	Starting 1/1/2018		
FROM	TO	\$/kW-mo	S/kW-mo	\$/kW-mo	S/kW-mo	S/kW-mo	\$/kW-mo		
-		-	-	-	-	-	-		
1/1/18	12/31/18		-	-		-	2.95		
1/1/19	12/31/19		-	-	-	3.29	2.95		
1/1/20	12/31/20	-	-		3.69	3.29	2.96		
1/1/21	12/31/21		-	4.16	3.69	3.30	2.97		
1/1/22	12/31/22		4.72	4.16	3.70	3.31	2.97		
1/1/23	12/31/23	5.39	4.73	4.17	3.71	3.32	2.98		
1/1/24	12/31/24	<u>5.41</u>	4.74	4.18	3.72	3.33	2.99		
1/1/25	12/31/25	5.42	4.75	4.19	3.73	3.33	3.00		
1/1/26	12/31/26	5.43	4.76	4.20	3.74	3.34	3.00		
1/1/27	12/31/27	5.45	4.77	4.22	3.75	3.35	3.01		
1/1/28	12/31/28	5.46	4.78	4.23	3.76	3.36	3.02		
1/1/29	12/31/29	5.47	4.80	4.24	3.77	3.37	3.03		
1/1/30	12/31/30	5.49	4.81	4.25	3.78	3.38	3.04		
1/1/31	12/31/31	<u>5.50</u>	4.82	4.26	3.79	3.39	3.04		
1/1/32	12/31/32	<u>5.52</u>	4.84	4.27	3.80	3.40	3.05		
100									

Continued to Sheet No. 8.428

ISSUED BY: G. L. Gillette N. G. Tower,

President

Docket No. 20180082-EQ Attachment A
Date: May 23, 2018 Page 80 of 104





EIGHTH NINTH REVISED SHEET NO. 8.428 CANCELS SEVENTH EIGHTH REVISED SHEET NO. 8.428

Continued from Sheet No. 8.427

BASIS FOR MONTHLY ENERGY PAYMENT CALCULATION:

- Energy Payment Rate: Prior to the in-service date of the avoided unit, the CEP's Energy Payment Rate shall be the Company's As-Available Energy Payment Rate (AEPR), as described in Appendix B. Starting the in-service date of the avoided unit, the basis for determining the Energy Payment Rate will be whether:
 - a. The Company has dispatched the CEP's unit on AGC; or
 - The Company has dispatched the CEP's unit off AGC and the CEP is operating its unit at or below the dispatched level; or
 - The Company has dispatched the CEP's unit off AGC but the CEP is operating its unit above the dispatched level; or
 - d. The Company has not dispatched the CEP's unit but the CEP is providing capacity and energy.

Note: For any given hour the CEP unit must be operating on AGC a minimum of 30 minutes to qualify under case (a).

The CEP's total monthly energy payment shall equal; (1) the sum of the hourly energy at the Unit Energy Payment Rate (UEPR), when the CEP's unit was dispatched by the Company, plus (2) the sum of the hourly energy at the corresponding hourly AEPR when the CEP's unit was operating at times other than when the Company dispatched the unit.

2. Unit Energy Payment Rate: Starting the in-service date of the avoided unit, the CEP will be paid at the UEPR for energy provided in Paragraph 1.a, Paragraph 1.b and that portion of the energy provided up to the dispatched level in Paragraph 1.c as defined above. The UEPR, which is based on the Company's Designated Avoided Unit and Heat Rate value of 10,94411,110 Btu/kWh, will be calculated monthly by the following formula:

UEPR = FC + Ov

where;

O_v = Unit Variable Operation & Maintenance Expense in \$/MWH.

Continued to Sheet No. 8.434

ISSUED BY: G. L. Gillette N. G. Tower,

President



AN EMERA COMPANY



EIGHTH-NINTH REVISED SHEET NO. 8.434
CANCELS SEVENTH-EIGHTH REVISED SHEET NO. 8.434

Continued from Sheet No. 8.428

FC = Fuel Component of the Energy Payment in \$/MWH as defined

by:

 $FC = \frac{10,94411,110Btu/kWh x FP}{10,94411,110Btu/kWh x FP}$

1,000

where;

FP = Fuel Price in \$/MMBTU determined by:

FP = GC/(1-FRP) + TC

where;

GC = Fuel Price in \$/MMBTU determined by taking the first publication of each month of Inside FERC's Gas Market Report low price quotation under the column titled "Index" for "Florida Gas Transmission Co., "Zone 2", listings.

TC = then currently approved Florida Gas Transmission (FGT) Company tariff rate in \$/MMBTU for forward haul Interruptible Market Area Transportation (ITS-1), including usage and surcharges.

FRP = then currently approved FGT Company tariff Fuel Reimbursement Charge Percentage in percent applicable to forward hauls for recovery of costs associated with the natural gas used to operate FGT's pipeline system.

 As-Available Energy Payment Rate (AEPR): For energy provided and not covered under Paragraph 2 above, the AEPR will be applicable and will be based on the system avoided energy cost as defined in Appendix B.

Continued to Sheet No. 8.436

ISSUED BY: G. L. Gillette N. G. Tower,

President





TENTH ELEVENTH REVISED
SHEET NO. 8.436
CANCELS NINTH TENTH REVISED
SHEET NO. 8.436

Continued from Sheet No. 8.428

PARAMETERS FOR AVOIDED UNIT ENERGY AND VARIABLE OPERATION AND MAINTENANCE COSTS

Beginning on May 1, 2020 January 1, 2023, to the extent that the Designated Avoided Unit(s) would have been operated had it been installed by the Company:

VALUE

O_V = total variable operating and maintenance expense, in \$/MWH, of the Designated Avoided Unit(s), in year n

2.4825

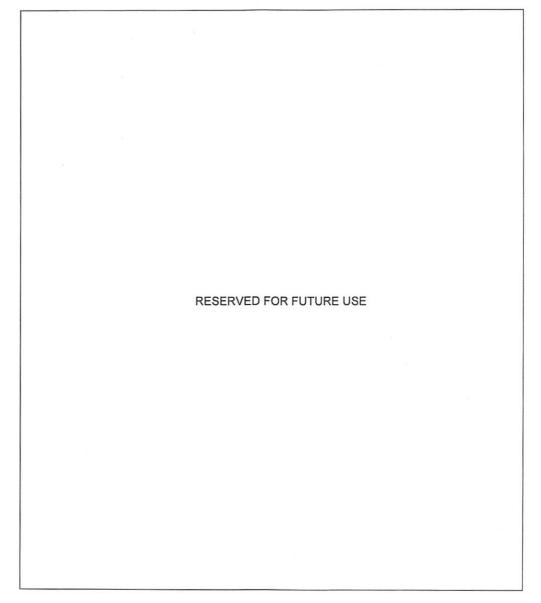
H = The average annual heat rate, in British Thermal Units (Btus) per kilowatt-hour (Btu/kWh), of the Designated Avoided Unit(s)

10,94411,110

ISSUED BY: G. L. Gillette N. G. Tower, President



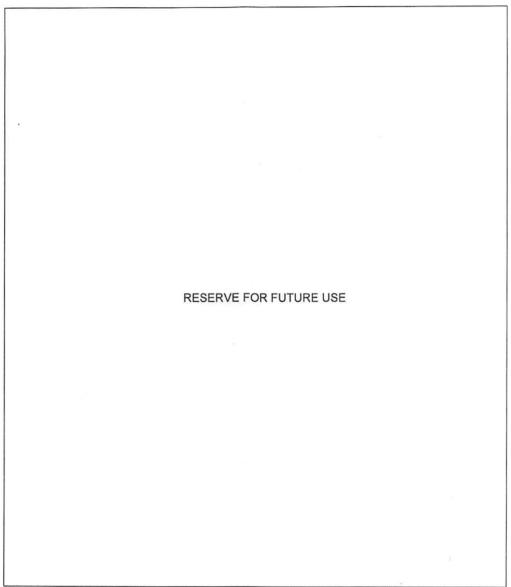
SECOND REVISED SHEET NO. 8.438 CANCELS FIRST REVISED SHEET NO. 8.438



ISSUED BY: G. L. Gillette, President



TWENTIETH REVISED SHEET NO. 8.440 CANCELS NINETEENTH REVISED SHEET NO. 8.440



ISSUED BY: G. L. Gillette, President



FIRST REVISED SHEET NO. 8.442 CANCELS ORIGINAL SHEET NO. 8.442

RESERVED FOR FUTURE USE

ISSUED BY: G. L. Gillette, President



FIRST REVISED SHEET NO. 8.444 CANCELS ORIGINAL SHEET NO. 8.444

RESERVED FOR FUTURE USE

ISSUED BY: G. L. Gillette, President



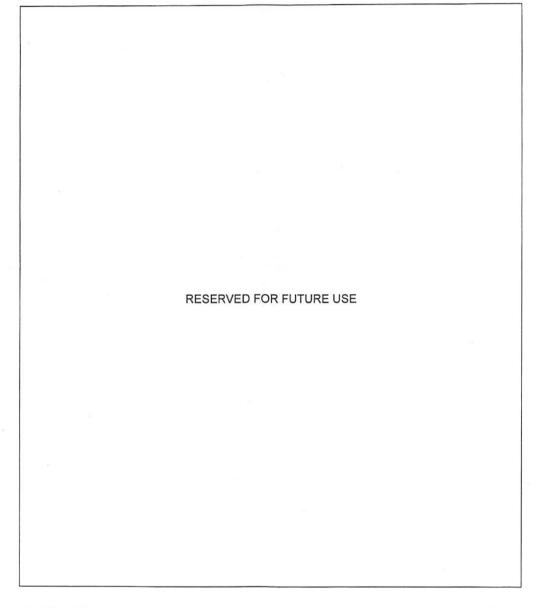
FIRST REVISED SHEET NO. 8.446 CANCELS ORIGINAL SHEET NO. 8.446

RESERVED FOR FUTURE USE

ISSUED BY: G. L. Gillette, President



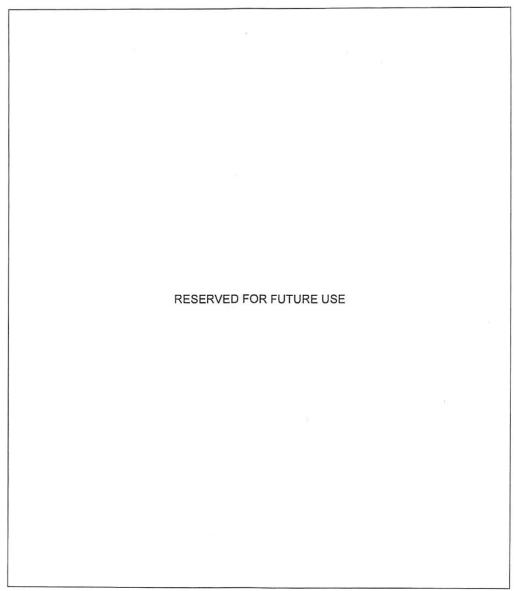
SECOND REVISED SHEET NO. 8.448 CANCELS FIRST REVISED SHEET NO. 8.448



ISSUED BY: G. L. Gillette, President



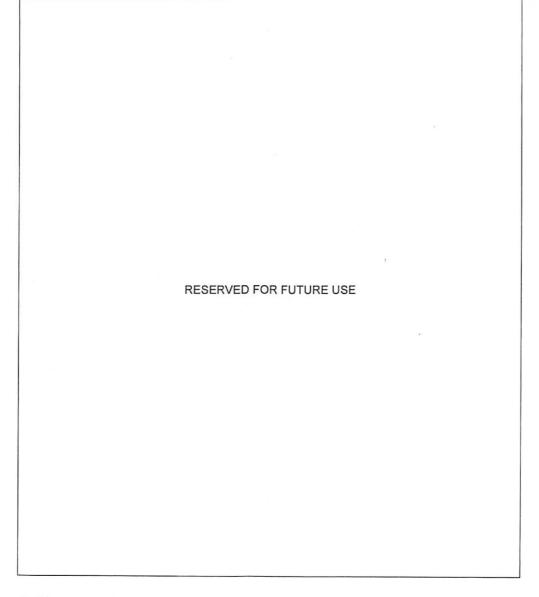
TWENTY-SECOND REVISED SHEET NO. 8.450 CANCELS TWENTY-FIRST REVISED SHEET NO. 8.450



ISSUED BY: G. L. Gillette, President



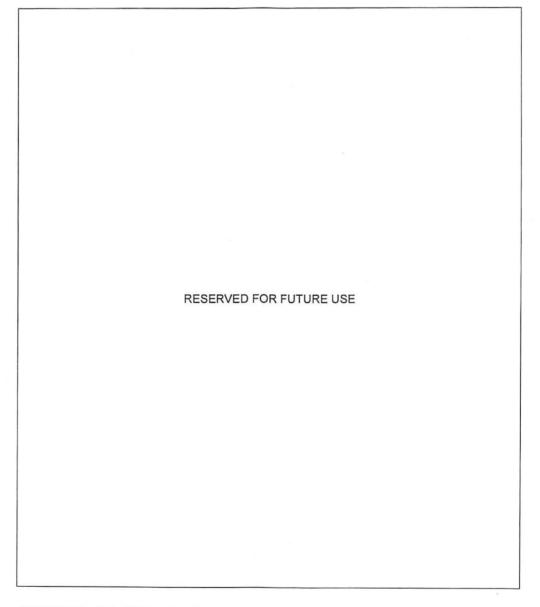
SECOND REVISED SHEET NO. 8.452 CANCELS FIRST REVISED SHEET NO. 8.452



ISSUED BY: G. L. Gillette, President



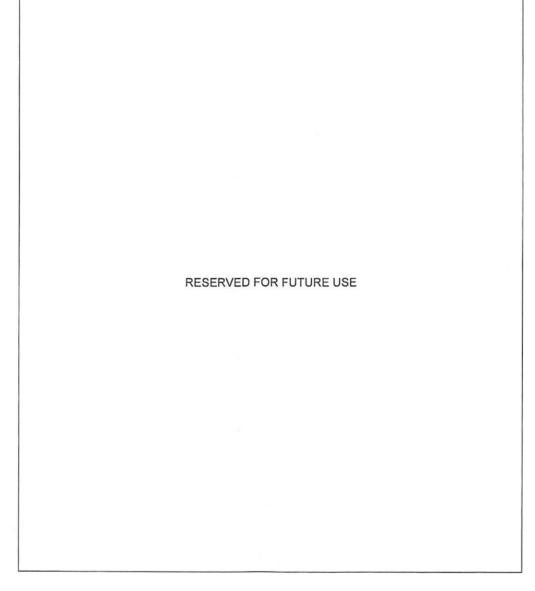
SECOND REVISED SHEET NO. 8.454 CANCELS FIRST REVISED SHEET NO. 8.454



ISSUED BY: G. L. Gillette, President



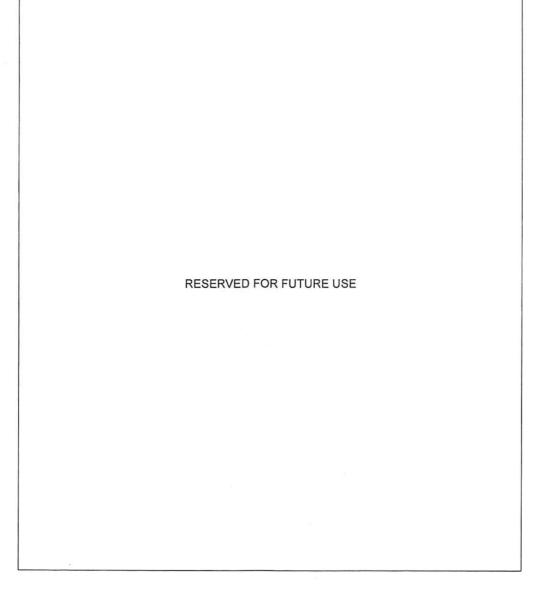
SECOND REVISED SHEET NO. 8.456 CANCELS FIRST REVISED SHEET NO. 8.456



ISSUED BY: G. L. Gillette, President DATE EFFECTIVE: July 13, 2010



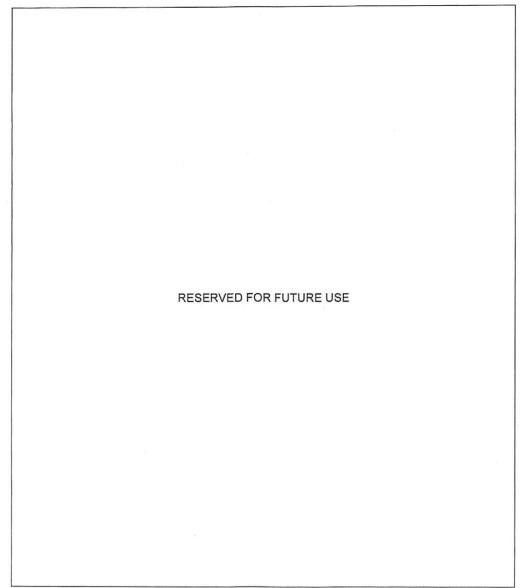
SECOND REVISED SHEET NO. 8.458 CANCELS FIRST REVISED SHEET NO. 8.458



ISSUED BY: G. L. Gillette, President



TWENTY-SECONDREVISED SHEET NO. 8.460 CANCELS TWENTY-FIRST REVISED SHEET NO. 8.460



ISSUED BY: G. L. Gillette, President

Attachment A Page 95 of 104

Docket No. 20180082-EQ Date: May 23, 2018

TAMPA ELECTRIC COMPANY

ORIGINAL SHEET NO. 8.700

GENERAL STANDARDS FOR SAFETY AND INTERCONNECTION OF COGENERATION AND SMALL POWER PRODUCTION FACILITIES TO THE ELECTRIC UTILITY SYSTEM

The following section is based on Florida Public Service Commission (FPSC) Rule 25-17.087, Florida Administrative Code, (F.A.C.), Interconnection and Standards and is applicable throughout Tampa Electric Company's (the Company's) service area:

- 1. The Company shall interconnect with any qualifying facility (qf) which:
 - a. is in its service area;
 - requests interconnection;
 - c. agrees to meet system standards specified in this Rule;
 - d. agrees to pay the cost of interconnection; and
 - e. signs an interconnection agreement.
- 2. Nothing in this rule shall be construed to preclude the Company from evaluating each request for interconnection on its own merits and modifying the general standards specified in this Rule to reflect the result of such an evaluation.
- 3. Where the Company refuses to interconnect with a qf or attempts to impose unreasonable standards pursuant to subsection (2) of this rule, the qf may petition the FPSC for relief. The Company shall have the burden of demonstrating to the FPSC why interconnection with the qfs should not be required or that the standards the Company seeks to impose on the qfs pursuant to subsection (2) are reasonable.
- 4. Upon a showing of credit worthiness, the qfs shall have the option of making monthly installment payments over a period no longer than 36 months toward the full cost of interconnection. However, where the qfs exercises that option, the Company shall charge interest on the amount owing. The Company shall charge such interest at the 30 day highest grade commercial paper rate. In any event, no the Company may not bear the cost of interconnection.

Continued to Sheet No. 8,705

ISSUED BY: J. B. Ramil, President

Attachment A Page 96 of 104

Docket No. 20180082-EQ Date: May 23, 2018

TAMPA ELECTRIC COMPANY

ORIGINAL SHEET NO. 8.705

Continued from Sheet No. 8,700

- 5. <u>Application for Interconnection:</u> A qf shall not operate electric generating equipment in parallel with the Company's electric system without the prior written consent of the Company. Formal application for interconnection shall be made by the qf prior to the installation of any generation related equipment. This application shall be accompanied by the following:
 - a. Physical layout drawings, including dimensions;
 - b. All associated equipment specifications and characteristics including technical parameters, ratings, basic impulse levels, electrical main one-line diagrams, schematic diagrams, system protections, frequency, voltage, current and interconnection distance;
 - c. Functional and logic diagrams, control and meter diagrams, conductor sizes and length, and any other relevant data which might be necessary to understand the proposed system and to be able to make a coordinated system;
 - d. Power characteristics in watts and vars;
 - e. Expected radio-noise, harmonic generation and telephone interference factor:
 - f. Synchronizing methods; and
 - g. Operating/instruction manuals.

Any subsequent change in the system must also be submitted for review and written approval prior to actual modification. The above mentioned review, recommendations and approval by the Company do not relieve the qf from complete responsibility for the adequate engineering design, construction and operation of the qf equipment and for any liability for injuries to property or persons associated with any failure to perform in a proper and safe manner for any reason.

Continued to Sheet No. 8.710

ISSUED BY: J. B. Ramil, President

TAMPA ELECTRIC COMPANY

ORIGINAL SHEET NO. 8.710

Continued from Sheet No. 8,705

6. <u>Personnel Safety:</u> Adequate protection and safe operational procedures must be developed and followed by the joint system. These operating procedures must be approved by both the Company and the qf. The qf shall be required to furnish, install, operate and maintain in good order and repair, and be solely responsible for, without cost to the Company, all facilities required for the safe operation of the generation system in parallel with the Company's system.

The qf shall permit the Company's employees to enter upon its property at any reasonable time for the purpose of inspection and/or testing the qf's equipment, facilities, or apparatus. Such inspections shall not relieve the qf from its obligation to maintain its equipment in safe and satisfactory operating condition.

The Company's approval of isolating devices used by the qf will be required to ensure that these will comply with the Company's switching and tagging procedure for safe working clearances.

a. <u>Disconnect switch:</u> A manual disconnect switch, of the visible load break type, to provide a separation point between the qf's generation system and the Company's system, shall be required. The Company will specify the location of the disconnect switch. The switch shall be mounted separate from the meter socket and shall be readily accessible to the Company and be capable of being locked in the open position with a Company padiock. The Company may reserve the right to open the switch (i.e., isolating the qf's generation system) without prior notice to the qf. To the extent practicable, however, prior notice shall be given.

Continued to Sheet No. 8.715

ISSUED BY: J. B. Ramil, President

TAMPA ELECTRIC COMPANY

ORIGINAL SHEET NO. 8.715

Continued from Sheet No. 8.710

Any of the following conditions shall be cause for disconnection:

- The Company's system emergencies and/or maintenance requirements; Hazardous conditions existing on the qf's generating or protective equipment as determined by the Company;
- ii. Adverse effects of the qf's generation to the Company's other electric consumers and/or system as determined by the Company;
- iii. Failure of the qf to maintain any required insurance; or
- iv. Failure of the qf to comply with any existing or future regulations, rules, orders or decisions of any governmental or regulatory authority having jurisdiction over the qf's electric generating equipment or the operation of such equipment.
- b. Responsibility and Liability: The Company and the qf shall each be responsible for its own facilities. The Company and the qf shall each be responsible for ensuring adequate safeguards for other Company customers, the Company and qf personnel and equipment, and for the protection of its own generating system. The Company and the qf shall each indemnify and save the other harmless from any and all claims, demands, costs, or expense for loss, damage, or injury to persons or property of the other caused by, arising out of, or resulting from:
 - i. Any act or omission by a party, or that party's contractors, agents, servants and employees in connection with the installation or operation of that party's generation system or the operation thereof in connection with the other party's system;
 - ii. Any defect in, failure of, or fault related to a party's generation system;
 - iii. The negligence of a party or negligence of that party's contractors, agents, servants or employees; or

Continued to Sheet No. 8.720

ISSUED BY: J. B. Ramil, President



FIRST REVISED SHEET NO. 8.720 CANCELS ORIGINAL SHEET NO. 8.720

Continued from Sheet No. 8.715

iv. Any other event or act that is the result of, or proximately caused by a party.

For the purpose of this paragraph, the term party shall mean either the Company or QF, as the case may be.

With respect to a QF that is the state, a state agency or subdivision (as those terms are defined in Section 768.28(2), Florida Statutes, or the successor thereto), the obligations of Customer set forth in Paragraph 6.b above shall be subject to Section 768.28 (or the successor thereto), including the limitations contained therein. With respect to a QF that is the United States of America, or agency or subdivision thereof, the obligations set forth in the first sentence of Paragraph 6.b shall not apply. In either case, the Company reserves its rights under Section 768.28 (or the successor thereto), and the Federal Tort Claims Act (or the successor thereto), as applicable, including, but not limited to, the right to pursue legislative relief.

- c. <u>Insurance:</u> The QF shall deliver to the Company, at least fifteen (15) days prior to the start of any interconnection work, a certificate of insurance certifying the QF's coverage under a liability insurance policy issued by a reputable insurance company authorized to do business in the State of Florida naming the QF as named insured, and the Company as an additional named insured, which policy shall contain a broad form contractual endorsement specifically covering the liabilities accepted under this agreement arising out of the interconnection to the QF, or caused by operation of any of the QF's equipment or by the QF's failure to maintain its equipment in satisfactory and safe operating condition.
 - i In subsequent years, a certificate of insurance renewal must be provided annually to the Company indicating the QF's continued coverage as described herein. Renewal certification shall be sent to:

Tampa Electric Company Risk Management Department P. O. Box 111 Tampa, FL 33601

ii. The policy providing such coverage for a Standard Offer Contract shall provide public liability insurance, including coverage for personal injury, death and property damage, in an amount not less than \$1,000,000 for each occurrence; provided however, if QF has insurance with limits greater than the minimum limits required herein, the QF shall set any amount higher than the minimum limits required by the Company to satisfy the insurance requirements of this Agreement.

Continued to Sheet No. 8,725

ISSUED BY: G. L. Gillette, President DATE EFFECTIVE: June 25, 2013



FIRST REVISED SHEET NO. 8.725 CANCELS ORIGINAL SHEET NO. 8.725

Continued from Sheet No. 8.720

- iii. The policy providing such coverage for a Negotiated Contract shall provide public liability insurance, including coverage for personal injury, death and property damage, in an amount not less than \$1,000,000 for each occurrence. The Parties may negotiate the amount of insurance over \$1,000,000.
- iv. The above required policy shall be endorsed with a provision requiring the insurance company will notify the Company thirty (30) days prior to the effective date of cancellation or material change in said policy.
- v. The QF shall pay all premiums and other charges due on said policy and keep said policy in force during the entire period of interconnection with the Company.
- vi. As an alternative to the foregoing insurance requirement, the QF may self-insure upon receiving the Company's prior written approval. The Company will provide the QF with written notification of approval or disapproval of a self-insurance application with 30 business days after the Company's receipt of all documentation required to support the application. In the event that the Company approves QF's request to self-insure, QF shall provide proof of its continuing ability to self-insure to the Company on an annual basis, or more frequently if requested by the Company. Notwithstanding the foregoing, the minimum insurance coverage amount set forth above shall be limited for the state, a state agency or subdivision (as those terms are defined in Section 768.28(2), or the successor thereto), to the maximum dollar amounts set forth in Section 768.28(5), or the successor thereto.
- 7. <u>Protection and Operation:</u> It will be the responsibility of the QF to provide all devices necessary to protect the QF's equipment from damage by the abnormal conditions and operations which occur on the Company system that result from interruptions and restorations of service by the Company's equipment and personnel. The QF shall protect its generator and associated equipment from overvoltage, undervoltage, overload, short circuits (including ground fault condition), open circuits, phase unbalance and reversal, over or under frequency condition, and other injurious electrical conditions that may arise on the Company's system and any reclose attempt by the Company.

The Company may reserve the right to perform such tests as it deems necessary to ensure safe and efficient protection and operation of the QF's equipment.

Continued to Sheet No. 8.730

ISSUED BY: G. L. Gillette, President DATE EFFECTIVE: June 25, 2013

TAMPA ELECTRIC COMPANY

ORIGINAL SHEET NO. 8.730

Continued from Sheet No. 8,725

a. <u>Loss of source:</u> The qf shall provide, or the Company will provide at the qf's expense, approved protective equipment necessary to immediately, completely, and automatically disconnect the qf's generation from the Company's system in the event of a fault on the qf's system, a fault on the Company's system, or loss of source on the Company's system. Disconnection must be completed within the time specified by the Company in its standard operating procedure for its electric system for loss of a source on the Company's system.

This automatic disconnecting device may be of the manual or automatic reclose type and shall not be capable of reclosing until after service is restored by the Company. The type and size of the device shall be approved by the Company depending upon the installation. Adequate test data or technical proof that the device meets the above criteria must be supplied by the qf to the Company. The Company shall approve a device that will perform the above functions at minimal capital and operating costs to the qf.

- b. <u>Coordination and Synchronization:</u> The qf shall be responsible for coordination and synchronization of the qf's equipment with the Company's electrical system, and assumes all responsibility for damage that may occur from improper coordination or synchronization of the generator with the Company's system.
- c. <u>Electrical characteristics:</u> Single phase generator interconnections with the Company are permitted at power levels up to 20 KW. For power levels exceeding 20 KW, a three phase balanced interconnection will normally be required. For the purpose of calculating connected generation, 1 horsepower equals 1 kilowatt. The qf shall interconnect with the Company at the voltage of the available distribution or transmission line of the Company for the locality of the interconnection, and shall utilize one of the standard connections (single phase, three phase, wye, delta) as approved by the Company.

Continued to Sheet No. 8.735

ISSUED BY: J. B. Ramil, President

Docket No. 20180082-EQ Attachment A
Date: May 23, 2018 Page 102 of 104

TAMPA ELECTRIC COMPANY

ORIGINAL SHEET NO. 8.735

Continued from Sheet No. 8,730

The Company may reserve the right to require a separate transformation and/or service for a qf's generation system, at the qf's expense. The qf shall bond all neutrals of the qf's system to the Company's neutral, and shall install a separate driven ground with a resistance value which shall be determined by the Company and bond this ground to the qf's system neutral.

- d. <u>Exceptions</u> A qfs generator having a capacity rating that can:
 - i. Produce power in excess of one half of the minimum Company customer requirements of the interconnected distribution or transmission circuit; or
 - ii. produce power flows approaching or exceeding the thermal capacity of the connected Company distribution or transmission lines or transformers; or
 - iii. adversely affect the operation of the Company or other Company customer's voltage, frequency or overcurrent control and protection devices; or
 - iv. adversely affect the quality of service to other Company customers;
 or
 - v. interconnect at voltage levels greater than distribution voltages, will require more complex interconnection facilities as deemed necessary by the Company.
- 8. Quality of Service: The qf's generated electricity shall meet the following minimum guidelines:
 - a. <u>Frequency:</u> 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%.
 - b. <u>Voltage:</u> The regulator control shall be capable of maintaining the generator output voltage within limits for loads from no-load up to rated output. The limits for voltage shall be the nominal operating voltage level, plus or minus 5%.

Continued to Sheet No. 8.740

ISSUED BY: J. B. Ramil, President

Docket No. 20180082-EQ Attachment A
Date: May 23, 2018 Page 103 of 104

TAMPA ELECTRIC COMPANY

ORIGINAL SHEET NO. 8.740

Continued from Sheet No. 8.735

- c. <u>Harmonics</u>: The output sine wave distortion shall be deemed acceptable when it does not have a higher content (root mean square) of harmonics than the Company's normal harmonic content at the interconnection point.
- d. <u>Power Factor:</u> The qfs generation system 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 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 qfs generator field).
- e. <u>DC Generators:</u> Direct current generators may be operated in parallel with the Company's system through a synchronous invertor. The invertor must meet all criteria in these rules.
- 9. Metering: The actual metering equipment required, its voltage rating, number of phases, size, current transformers, potential transformers, number of inputs and associated memory is dependent on the type, size and location of the electric service provided. In situations where power may flow both in and out of the qfs system, power flowing into the qfs system will be measured separately from power flowing out of the qfs system.

The Company will provide, at no additional cost to the qf, the metering equipment necessary to measure capacity and energy deliveries to the qf. The Company will provide, at the qfs expense, the necessary additional metering equipment to measure capacity and energy deliveries by the qf to the Company.

10. <u>Cost Responsibility:</u> The qf is required to bear all costs associated with the change-out, upgrading or addition of protective devices, transformers,

Continued to Sheet No. 8,745

ISSUED BY: J. B. Ramil, President

TAMPA ELECTRIC COMPANY

ORIGINAL SHEET NO. 8.745

Continued from Sheet No. 8.740

lines, services, meters, switches, and associated equipment and devices beyond that which would be required to provide normal service to the qf if the qf were a nongenerating customer. These costs shall be paid by the qf to the Company for all material and labor that is required. Prior to any work being done by the Company, the Company shall supply the qf with a written cost estimate of all its required materials and labor and an estimate of the date by which construction of the interconnection will be completed. This estimate shall be provided to the qf within 60 days after the qf provides the Company with its final electrical plans. The Company shall also provide project timing and feasibility information to the qf.

11. The Company shall submit, to the FPSC, a standard agreement for the interconnection by qfs as part of their Standard Offer contract or contracts required by FPSC Rule 25-17.0832(3), F.A.C.

ISSUED BY: J. B. Ramil, President