AUSLEY & MCMULLEN

ATTORNEYS AND COUNSELORS AT LAW

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May 7, 2008

HAND DELIVERED

Ms. Ann Cole, Director Office of Commission Clerk Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

> Petition of Tampa Electric Company for Approval of Standard Interconnection Re: Agreements for Expedited Interconnection of Customer-Owned Renewable Generation and Associated Net Metering Tariff

Dear Ms. Cole:

Enclosed for filing in the above docket are the original and fifteen (15) copies of Tampa Electric Company's Petition for Approval of Standard Interconnection Agreements for Expedited Interconnection of Customer-Owned Renewable Generation and Associated Net Metering Tariff.

Please acknowledge receipt and filing of the above by stamping the duplicate copy of this letter and returning same to this writer.

Thank you for your assistance in connection with this matter. CMP Sincerely, COM CIR ames D. Beasley SCR JÐB/pp OPC Enclosure RCA ____ SCR SGA DOCUMENT NUMBER-DATE

03762 HAY-78

FPSC-COMMISSION CLERK

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition of Tampa Electric Company) for Approval of Standard Interconnection) Agreements for expedited interconnection of) customer-owned renewable generation and) associated net metering tariff)

DOCKET NO. FILED: May 7, 2008

PETITION OF TAMPA ELECTRIC COMPANY FOR APPROVAL OF STANDARD INTERCONNECTION AGREEMENTS FOR EXPEDITED INTERCONNECTION OF CUSTOMER-OWNED RENEWABLE GENERATION AND ASSOCIATED NET METERING TARIFF

Tampa Electric Company ("Tampa Electric" or "the company") hereby petitions the Commission for approval of Standard Interconnection Agreements for expedited interconnection of customer-owned renewable generation and for approval of an associated net metering tariff and, as grounds therefor, says:

1. Tampa Electric is an investor-owned electric utility operating under the jurisdiction of this Commission and serving retail customers in Hillsborough and portions of Polk, Pinellas and Pasco Counties in Florida. The company's principal offices are located at 702 North Franklin Street, Tampa, Florida 33602.

2. The persons to whom all notices and other documents should be sent in connection with this docket are:

Lee L. Willis James D. Beasley Ausley & McMullen Post Office Box 391 Tallahassee, FL 32302 (850) 224-9115 (850) 222-7952 (fax) Paula K. Brown, Administrator Regulatory Coordination Tampa Electric Company Post Office Box 111 Tampa, FL 33601 (813) 228-1444 (813) 228-1770 (fax)

DOCUMENT NUMBER-DATE 03762 MAY-78 FPSC-COMMISSION OF FIRM

On March 19, 2008 the Commission issued its notice of adoption of Rule 25-3. 6.065, Florida Administrative Code, relating to interconnection and net metering of customerowned renewable generation.¹ That rule calls for investor-owned utilities to file within 30 days of the effective date of the rule a Standard Interconnection Agreement for expedited interconnection of customer-owned renewable generation, up to 2 MW, that complies with the standards set forth in the rule. Tampa Electric has prepared and submits herewith as Exhibit "A" for Commission approval its Standard Interconnection Agreements in standard and legislative format. Exhibit "A" begins with two revised tariff index pages, Sheets 8.010 and 8.015, that reflect the addition of the Standard Interconnection Agreements as well as the Standard Interconnection Agreement for Non-Export Parallel Operators 10 MVA or Less which is being submitted for approval under a separate petition. The rule creates three tiers of interconnection requirements for renewable generators. Tier 1 for generators 10 kW or less in gross power rating. Tier 2 for generators greater that 10 kW but less than or equal to 100 kW, and Tier 3 for generators greater than 100 kW but less than or equal to 2 MW. Although many of the terms and conditions are the same for these three tiers, there are enough differences between them to warrant the three separate agreements, one for each tier that Tampa Electric is proposing. Separate agreements tailored for each tier should mitigate confusion for applicants and facilitate the execution and administration of the agreements. All the terms and conditions of interconnection described in Rule 25-6.065 are included in the three proposed agreements. Tampa Electric has elected, as provided for under the rule in Section (6), to require a manual disconnect switch and has appropriately included such requirement in the proposed agreements.

¹ Order No. PSC-08-0161-FOF-EI ("Order No. PSC-08-0161"), issued March 19, 2008 in Docket No. 070674-EI, <u>In</u> re: Proposed amendment of Rule 25-6.065, F.A.C., Interconnection and Net Metering of Customer-Owned Renewable Generation.

4. Tampa Electric's proposed Standard Interconnection Agreements are in compliance with Order No. PSC-08-0161 and, therefore, qualifies for approval by the Commission.

5. As required under section (7)(a) of the rule, and as is currently the case for Tampa Electric, a website is maintained by Tampa Electric addressing renewable energy on which an application for interconnection can be found. Upon approval of the proposed agreements, information necessary to execute the agreements, as well as the agreements themselves, may be downloaded from this website.

6. Subsection (4)(f) of the rule states that, along with the Standard Interconnection Agreement filed pursuant to subsection (3), each investor-owned utility may propose for Commission approval a standard application fee for Tier 2 and Tier 3, including itemized costs support for each cost contained within the fee. Tampa Electric requests Commission approval of the proposed application fees of \$250 for Tier 2 applicants and \$500 for Tier 3 applicants. Attached hereto, as Exhibit "B" and "C", respectively, are Tampa Electric's detailed cost support for these proposed fees.

7. Subsection (4)(g) of the rule further states that each investor-owned utility may also propose for Commission approval an Interconnection Study Charge for Tier 3. Tampa Electric hereby requests Commission approval of the Interconnection Study Charge mechanism for Tier 3 proposals as described in the proposed Tier 3 Standard Interconnection Agreement.

8. The proposed fees and charges addressed herein are cost based and reasonable and comply with the spirit and content of Rule 25-6.065.

9. Part of Rule 25-6.065 mandates that net metering be provided for renewable energy customers taking service connected to the grid pursuant to the rule. In order to facilitate and make clear the terms and conditions associated with provided net metering to such

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customers, Tampa Electric is proposing for Commission approval rate schedule NM-1. Tampa Electric has prepared and submits herewith as Exhibit "D" for Commission approval its new rate schedule NM-1 in tariff sheet format which is in compliance with Order No. PSC-08-0161 and, therefore, qualifies for approval by the Commission.

10. Tampa Electric further requests that the tariffs reflecting the company's proposed Standard Interconnection Agreements and rate Schedule NM-1 be approved effective with the first billing cycle in the month following the month in which those tariffs are approved.

11. Tampa Electric is not aware of any disputed issues of material fact relating to the relief requested herein.

WHEREFORE, Tampa Electric Company respectfully requests that the Commission consider and approve the company's proposed Standard Interconnection Agreements attached hereto as Exhibit "A", the application fees for Tiers 2 and 3 addressed in Exhibits "B" and "C", the Tier 3 Interconnection Study Charge described in the Tier 3 proposed agreement, and proposed rate schedule NM-1 attached hereto as Exhibit "D" to this Petition, with each of the foregoing becoming effective and applicable for the first billing cycle of the month following the month in which they are approved.

DATED this <u>7</u> day of May 2008.

Respectfully submitted,

In cobsen ~

LÉÉ L. WILLIS JAMES D. BEASLEY Ausley & McMullen Post Office Box 391 Tallahassee, FL 32302 (850) 224-9115

ATTORNEYS FOR TAMPA ELECTRIC COMPANY

Exhibit "A"



SEVENTH REVISED SHEET NO. 8.010 CANCELS SIXTH REVISED SHEET NO. 8.010

INDEX

COGENERATION AND SMALL POWER PRODUCTION

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<u>Appendix</u> - Methodology to be Used in the Calculation of Avoided Energy Cost - Schedule COG-1	8.101
Standard Offer Contract: Standard Offer Contract for the Purchase of Contracted Capacity and Associated Energy from a Renewable Generating Facility or a Small Qualifying Facility	8.202
Evaluation Procedure for Standard Offer Contracts	8.266
Schedule COG-2: Standard Offer Contract Rate for the Purchase of Contracted Capacity and Associated Energy	8.284
Appendix A: Value of Deferral Methodology	8.328
Appendix B: Methodology to be Used in Calculation of Avoided Energy Cost	8.344
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<u>Service Agreement For The Purchase of Emergency On-Demand</u> Energy At Negotiated Rates	8.800

DOCUMENT NUMBER DATE

ISSUED BY: C. R. Black, President 03762 HAY -7 8

DATE EFFECTIVE:

FPSC-COMMISSION CLERIC



FOURTH REVISED SHEET NO. 8.015 CANCELS THIRD REVISED SHEET NO. 8.015

Title	Sheet No.
Standard Interconnection Agreement for Tier 1 Renewable Generator Systems	8.1000
Standard Interconnection Agreement for Tier 2 Renewable Generator Systems	8.1035
Standard Interconnection Agreement for Tier 3 Renewable Generator Systems	8.1070
Standard Interconnection Agreement for Non-Export Parallel Operators 10MVA or Less	8.1110

DATE EFFECTIVE:



STANDARD INTERCONNECTION AGREEMENT FOR TIER 1 RENEWABLE GENERATOR SYSTEMS

This Agreement is made and entered into this _____day of _____, 20___, by and between _____, (hereinafter called "Customer"), located at ______, Florida and Tampa Electric Company (hereafter called "Company"), a corporation organized under the laws of the State of Florida. The Customer and the Company shall collectively be called the "Parties". The physical location / premise where the interconnection is taking place is ______.

WITNESSETH:

WHEREAS, a Tier 1 Renewable Generator System (RGS) is an electric generating system that uses one or more of the following fuels or energy sources: hydrogen, biomass, solar energy, geothermal energy, wind energy, ocean energy, waste heat, or hydroelectric power as defined in Section 377.803, Florida Statutes, rated at no more than 10 kilowatts (kW) alternating current (AC) power output and is primarily intended to offset part or all of a customer's current electricity requirements.

WHEREAS, the Customer has made a request (by providing the Company with a completed application) to interconnect its owned or leased RGS with the Company's electrical supply grid at the physical location / premise identified above.

NOW, THEREFORE, that and for the mutual covenants and agreements expressed herein, the Company and the Customer agree as follows:

- 1. The Customer certifies that the RGS equipment, its installation, its operation and its maintenance shall be in compliance with the following standards:
 - a. IEEE-1547 (2003) Standard for Interconnecting Distributed Resources with Electric Power System;
 - b. IEEE-1547.1 (2005) Standard Conformance Test Procedures for Equipment Interconnection Distributed Resources with Electric Power Systems;
 - c. UL-1741 (2005) Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources.
 - d. The National Electric Code, state and/or local building codes, mechanical codes and/or electrical codes;
 - e. The manufacturer's installation, operation and maintenance instructions.



- A Customer is not precluded from contracting for the lease, operation or maintenance of an RGS with a third party. Such lease may not provide terms or conditions that provided for any payments under the agreements to in any way mimic or reflect the purchase of energy produced by the RGS.
- 3. The Customer shall provide a copy of the manufacturer's installation, operation and maintenance instructions to the Company. If the RGS is leased to the Customer by a third party, or if operation or maintenance of the RGS is to be performed by a third party, the lease or performance agreements and any pertinent documents related to those agreements, shall be provided to the Company.
- 4. The Customer shall have the completed RGS inspected and approved by the appropriate code authorities having jurisdiction. The Customer shall provide proof of this inspection and approval to the Company.
- 5. The Customer certifies that the RGS equipment includes a utility-interactive inverter or interconnection system equipment that ceases to interconnect with the utility upon a loss of utility power. The inverter shall be considered certified for interconnected operation if it has been submitted by a manufacturer to a nationally recognized testing laboratory (NRTL) to comply with UL 1741. The NRTL shall be approved by the Occupational Safety & Health Administration (OSHA).
- 6. The Customer shall not energize the Company's system when the Company's system is de-energized. The Customer shall cease to energize the Company's system during a faulted condition on the Company's system. The Customer shall cease to energize the Company's system prior to the automatic or non-automatic reclosing of the Company's protective device(s). There shall be no intentional islanding, as described in IEEE 1547, between the Customer's and the Company's systems
- 7. "Gross power rating" (GPR) means the total manufacturer's AC nameplate generating capacity of an on-site customer-owned renewable generation system that will be interconnected to and operate in parallel with the investor-owned utility's distribution facilities. For inverter-based systems, the GPR shall be calculated by multiplying the total installed DC nameplate generating capacity by .85 in order to account for losses during the conversion from DC to AC. It is the Customer's responsibility to notify the Company of any change to the GPR of the RGS by submitting a new application for interconnection specifying the modifications at least 30 days prior to making the modifications. Increase in GPR above the 10 kW limit would necessitate entering into a new agreement at either Tier 2 or Tier 3 which may impose additional requirements on the Customer. In any case, increases in GPR above 2 megawatts (MW) would necessitate an entirely new interconnection process not covered under the Tier 1, Tier 2 or Tier 3 agreements.



- 8. The RGS must have a GPR that does not exceed 90% of the Customer's utility distribution service rating at the Customer's location. If the GPR does exceed that 90% limit, the Customer shall be responsible to pay the cost of upgrades for that distribution service to accommodate the GPR capacity and ensure the 90% threshold is not breached.
- 9. Subject to an approved inspection, including installation of acceptable disconnect switch, this Agreement shall be executed by the Company within 30 calendar days of receipt of a completed application. The Company encourages the Customer to maintain general liability insurance for personal injury and property damage in the amount of not less than one hundred thousand dollars (\$100,000).
- 10. The Customer is responsible for the protection of its generation equipment, inverters, protection devices, and other system components from damage from the normal and abnormal operations that occur on the Company's utility system in delivering and restoring system power. The Customer is also responsible for ensuring that the RGS equipment is inspected, maintained, and tested regularly in accordance with the manufacturer's instructions to ensure that it is operating correctly and safely. Such inspection should occur after large storms have traversed the Customer's location and after connection with the Company's system has been restored.
- 11. The Customer shall install, at the Company's expense and subject to the approval of the cost by the Company, a manual disconnect switch of the visible load break type to provide a separation point between the AC power output of the RGS and any Customer wiring connected to the Company's utility system such that back feed from the RGS to the Company's utility system cannot occur when the switch is in the open position. The manual disconnect switch shall be mounted separate from the meter socket on an exterior surface adjacent to the meter. The switch shall be readily accessible to the Company and capable of being locked in the open position with a Company padlock. When locked and tagged in the open position by the Company, this switch will be under the control of the Company. If the switch installation cost proposed by the Customer or the Customer's contractor exceeds the Company's cost to have the switch installed through its own means, the Company shall install the switch, and the Customer to shall provide reasonable accommodation to the Company for such installation.



FIRST REVISED SHEET NO. 8.1015 CANCELS ORIGINAL SHEET NO. 8.1015

- 12. The Company may open the switch, isolating the RGS, without prior notice to the Customer. To the extent practical, however, prior notice shall be given. If prior notice is not given, the utility shall at the time of disconnection leave a door hanger notifying the Customer that the RGS has been disconnected, including an explanation of the condition necessitating such action. The switch will be re-closed by the Company as soon as practical once the conditions causing the disconnection cease to exist. Typical conditions which may require the switch to be opened include, but are not limited to:
 - Company utility system emergencies or maintenance requirements.
 - Hazardous conditions existing on the Company's utility system due to the operation of the Customer's RGS generation or protective equipment as determined by the Company.
 - Adverse electrical effects (such as power quality problems) on the electrical equipment of the company's other electric consumers caused by the RGS as determined by the Company.
- 13. The Customer agrees to indemnify and hold harmless the Company, its subsidiaries or affiliates, and their respective employees, officers and directors, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Company, its subsidiaries, affiliates, and their respective employees, officers and directors may hereafter incur, suffer or be required to pay by reason of negligence on the part of the Customer under the obligation of this Agreement. The Company agrees to indemnify and hold harmless the Customer, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Company agrees to indemnify and hold harmless the Customer, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Customer may hereafter incur, suffer or be required to pay by reason of negligence on the part of the obligations of this Agreement.
- 14. In no event shall any statement, representation, or lack thereof, either express or implied, by the Company, relieve the Customer of exclusive responsibility for the Customer's RGS. Specifically, any Company inspection of the RGS shall not be construed as confirming or endorsing the RGS design or its operating or maintenance procedures nor as a warranty or guarantee as to the safety, reliability, or durability of the RGS equipment. The Company's inspection, acceptance, or its failure to inspect shall not be deemed an endorsement of any RGS equipment or procedure.



FIRST REVISED SHEET NO. 8.1020 CANCELS ORIGINAL SHEET NO. 8.1020

- 15. The Company will furnish, install, own and maintain metering equipment to measure kilowatt-hours (kWh) of energy and, if applicable, the kW of demand and time of use of said energy and demand. The Customer's service associated with the RGS will be metered at a single metering point and the metering equipment will measure energy delivered by the Company to the Customer, and also measure energy delivered by the Customer to the Company. The Customer agrees to provide safe and reasonable access to the premises for installation of this equipment and its future maintenance or removal.
- 16. The Customer agrees to permit the Company, if it should so choose, to inspect the RGS and its component equipment and the documents necessary to ensure compliance with various sections of this Agreement both before and after the Customer RGS goes into service and to witness the initial testing of the Customer's RGS equipment and protective apparatus. The Company shall provide the Customer with as much notice as reasonably practicable; either in writing, e-mail, facsimile or by phone, as to when the Company may conduct inspection or document review. Upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, Customer agrees to provide the Company access to the Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed by the Agreement or, if necessary, to meet the Company's legal obligation to provide service to its customers. The Customer shall notify the Company at least 10 days prior to the inservice date of the RGS to provide sufficient notice for the Company to be able to be present, if it so chooses, when the RGS is placed in service.
- 17. Once the Company has received the Customer's written documentation that the requirements of this Agreement have been met and the correct operation of the manual switch has been demonstrated to a Company representative, the Company will, within 10 business days, send written notice that parallel operation of the RGS may commence.
- 18. The Customer shall not have the right to assign its benefits or obligations under this Agreement without the Company's prior written consent and such consent shall not be unreasonably withheld. The Company may require the assignee to sign a new copy of this Agreement, agreeing to all its requirements and paying the applicable processing charge.
- 19. In executing this Agreement, the Company does not, nor should it be construed to extend its credit or financial support for the benefit or any third parties lending money to or having other transactions with Customer or any assignee of this Agreement.



- 20. On termination of services pursuant to this Agreement, the Company shall open and padlock the manual disconnect switch and remove any additional metering equipment related to this Agreement. At the Customer's expense, within 10 working days following the termination, the Customer shall permanently isolate the RGS and any associated equipment from the Company's electric supply system, notify the Company that the isolation is complete, and coordinate with the Company for return of the Company's lock.
- 21. This Agreement supersedes all previous agreements and representations either written or verbal heretofore made between the Company and Customer with respect to matters herein contained. This Agreement, when duly executed, constitutes the only Agreement between parties hereto relative to the matters herein described.
- 22. This Agreement 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 it may be modified, changed, or amended from time to time.
- 23. This Agreement incorporates by reference the terms of the tariff filed with the Florida Public Serviced Commission by Tampa Electric Company, including Rate Schedule NM-1, and associated technical terms and abbreviations, general rules and regulations and standard electric service requirements (as may be applicable) are incorporated by reference, as amended from time to time. To the extent of any conflict between this Agreement and such tariff, the tariff shall control.
- 24. The Company and Customer recognize that the Florida Public Service Commission Rules, including those Rules directly addressing the subject of this Agreement, may be amended from time to time. In the event that such rules are amended that affect the terms and conditions of this Agreement, the Company and Customer agree to supersede and replace this Agreement with a new Interconnection Agreement which complies with the amended rules.
- 25. This Agreement shall inure to the benefit of and be binding upon the respective heirs, legal representatives, successors and assigns of the parties hereto. If this Agreement is assigned, the Customer shall notify the Company prior to the effective date of the assignment.
- 26. The Company or Customer may seek resolution of disputes arising out of the interpretation of this Agreement pursuant to Rule 25-22.032, F.A.C. Customer Complaints, or Rule 25-22.036, F.A.C., Initiation of Formal Proceedings.



IN WITNESS WHEREOF, Customer and the Company have executed this Agreement the day and year first above written.

CUSTOMER

By:_____ Its:_____

COMPANY By:_____ Its:_____



STANDARD INTERCONNECTION AGREEMENT FOR TIER 2 RENEWABLE GENERATOR SYSTEMS

This Agreement is made and entered into t	this day of	, 20, by and
between	, (hereinafter called	"Customer"), located at
in	, Florida and T	ampa Electric Company
(hereafter called "Company"), a corporation of	organized under the la	ws of the State of Florida.
The Customer and the Company shall collection	vely be called the "Par	ties". The physical location
/ premise where the interconnection is taking p	place is	·

WITNESSETH:

WHEREAS, a Tier 2 Renewable Generator System (RGS) is an electric generating system that uses one or more of the following fuels or energy sources: hydrogen, biomass, solar energy, geothermal energy, wind energy, ocean energy, waste heat, or hydroelectric power as defined in Section 377.803, Florida Statutes, rated above a lower limit of 10 kilowatts (kW) and no more than 100 kW alternating current (AC) power output and is primarily intended to offset part or all of a customer's current electricity requirements.

WHEREAS, the Customer has made a request (by providing the Company with a completed application) to interconnect its owned or leased RGS with the Company's electrical supply grid at the physical location / premise identified above.

NOW, THEREFORE, that and for the mutual covenants and agreements expressed herein, the Company and the Customer agree as follows:

- The Customer certifies that the RGS equipment, its installation, its operation and its maintenance shall be in compliance with the following standards:
 - a. IEEE-1547 (2003) Standard for Interconnecting Distributed Resources with Electric Power System;
 - b. IEEE-1547.1 (2005) Standard Conformance Test Procedures for Equipment Interconnection Distributed Resources with Electric Power Systems;
 - c. UL-1741 (2005) Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources.
 - d. The National Electric Code, state and/or local building codes, mechanical codes and/or electrical codes;
 - e. The manufacturer's installation, operation and maintenance instructions.



- 2. A Customer is not precluded from contracting for the lease, operation or maintenance of an RGS with a third party. Such lease may not provide terms or conditions that provided for any payments under the agreements to in any way mimic or reflect the purchase of energy produced by the RGS.
- 3. The Customer shall provide a copy of the manufacturer's installation, operation and maintenance instructions to the Company. If the RGS is leased to the Customer by a third party, or if operation or maintenance of the RGS is to be performed by a third party, the lease or performance agreements and any pertinent documents related to those agreements, shall be provided to the Company.
- 4. The Customer shall have the completed RGS inspected and approved by the appropriate code authorities having jurisdiction. The Customer shall provide proof of this inspection and approval to the Company.
- 5. The Customer certifies that the RGS equipment includes a utility-interactive inverter or interconnection system equipment that ceases to interconnect with the utility upon a loss of utility power. The inverter shall be considered certified for interconnected operation if it has been submitted by a manufacturer to a nationally recognized testing laboratory (NRTL) to comply with UL 1741. The NRTL shall be approved by the Occupational Safety & Health Administration (OSHA).
- 6. The Customer shall not energize the Company's system when the Company's system is de-energized. The Customer shall cease to energize the Company's system during a faulted condition on the Company's system. The Customer shall cease to energize the Company's system prior to the automatic or non-automatic reclosing of the Company's protective device(s). There shall be no intentional islanding, as described in IEEE 1547, between the Customer's and the Company's systems
- 7. "Gross power rating" (GPR) means the total manufacturer's AC nameplate generating capacity of an on-site customer-owned renewable generation system that will be interconnected to and operate in parallel with the investor-owned utility's distribution facilities. For inverter-based systems, the GPR shall be calculated by multiplying the total installed DC nameplate generating capacity by .85 in order to account for losses during the conversion from DC to AC. It is the Customer's responsibility to notify the Company of any change to the GPR of the RGS by submitting a new application for interconnection specifying the modifications at least 30 days prior to making the modifications. Decrease in GPR below the 10 kW limit, or increase in GPR above the 100 kW limit would necessitate entering into a new agreement at either Tier 1 or Tier 3 which may impose or remove additional requirements on the Customer. In any case, increases in GPR above 2 megawatts (MW) would necessitate an entirely new interconnection process not covered under the Tier 1, Tier 2 or Tier 3 agreements.

DATE EFFECTIVE:



- 8. The RGS must have a GPR that does not exceed 90% of the Customer's utility distribution service rating at the Customer's location. If the GPR does exceed that 90% limit, the Customer shall be responsible to pay the cost of upgrades for that distribution service to accommodate the GPR capacity and ensure the 90% threshold is not breached.
- 9. The Customer shall maintain general liability insurance for personal injury and property damage in the amount of not less than one million dollars (\$1,000,000). The Customer shall provide initial proof of insurance, or sufficient guarantee and proof of self-insurance, evidencing the Customer's insurance as a covered addition to the Customer's insured property. The Customer shall submit similar proof of continuing insurance coverage within 30 days of any policy renewal.
- 10. Subject to an approved inspection, including installation of acceptable disconnect switch or completion of any expansion or other work identified in an interconnection study, this Agreement shall be executed by the Company within 30 calendar days of receipt of a If after initial inspection the Company determines that an completed application. interconnection study is necessary, there shall be no delay in execution of this Agreement associated with any such study and no charge to the Customer associated The Customer shall pay to the Company a \$250, one-time, with the study. nonrefundable fee for processing this Agreement. If, as a result of any interconnection study that is performed associated with the RGS, it is determined that the Company's system or associated equipment must be expanded or costs must be incurred to accommodate the safe and reliable operation of the RGS on an interconnected basis with the Company, the Customer may be liable for charges to make such expansion or recoup such costs. Any such charges shall not be assessed on the Customer without prior approval of the Florida Public Service Commission as per Rule 25-6.065(4)(h). The Agreement shall not be entered into until the expansion or other work identified in the study has been completed and payment arranged for.
- 11. The Customer is responsible for the protection of its generation equipment, inverters, protection devices, and other system components from damage from the normal and abnormal operations that occur on the Company's utility system in delivering and restoring system power. The Customer is also responsible for ensuring that the RGS equipment is inspected, maintained, and tested regularly in accordance with the manufacturer's instructions to ensure that it is operating correctly and safely. Such inspection should occur after large storms have traversed the Customer's location and after connection with the Company's system has been restored.



- 12. The Customer shall install, at the Customer's expense a manual disconnect switch of the visible load break type (or a type mutually agreed to by the Customer and the Company) to provide a separation point between the AC power output of the RGS and any Customer wiring connected to the Company's utility system such that back feed from the RGS to the Company's utility system can not occur when the switch is in the open position. The manual disconnect switch shall be mounted separate from the meter socket on an exterior surface adjacent to the meter. The switch shall be readily accessible to the Company and capable of being locked in the open position with a Company padlock.
- 13. The Company may open the switch, isolating the RGS, without prior notice to the Customer. To the extent practical, however, prior notice shall be given. If prior notice is not given, the utility shall at the time of disconnection leave a door hanger notifying the Customer that the RGS has been disconnected, including an explanation of the condition necessitating such action. The switch will be re-closed by the Company as soon as practical once the conditions causing the disconnection cease to exist. Typical conditions which may require the switch to be opened include, but are not limited to:
 - Company utility system emergencies or maintenance requirements.
 - Hazardous conditions existing on the Company's utility system due to the operation of the Customer's RGS generation or protective equipment as determined by the Company.
 - Adverse electrical effects (such as power quality problems) on the electrical equipment of the company's other electric consumers caused by the RGS as determined by the Company.
 - Failure of the Customer to maintain the required insurance for the duration of this Agreement.
- 14. The Customer agrees to indemnify and hold harmless the Company, its subsidiaries or affiliates, and their respective employees, officers and directors, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Company, its subsidiaries, affiliates, and their respective employees, officers and directors may hereafter incur, suffer or be required to pay by reason of negligence on the part of the Customer under the obligation of this Agreement. The Company agrees to indemnify and hold harmless the Customer, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Customer may hereafter incur, suffer or be required to pay by reason of negligence on the part of the obligation of this Agreement. The Company agrees to indemnify and hold harmless the Customer, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Customer may hereafter incur, suffer or be required to pay by reason of negligence on the part of the Company under the obligations of this Agreement.



- 15. In no event shall any statement, representation, or lack thereof, either express or implied, by the Company, relieve the Customer of exclusive responsibility for the Customer's RGS. Specifically, any Company inspection of the RGS shall not be construed as confirming or endorsing the RGS design or its operating or maintenance procedures nor as a warranty or guarantee as to the safety, reliability, or durability of the RGS equipment. The Company's inspection, acceptance, or its failure to inspect shall not be deemed an endorsement of any RGS equipment or procedure.
- 16. The Company will furnish, install, own and maintain metering equipment to measure kilowatt-hours (kWh) of energy and, if applicable, the kW of demand and time of use of said energy and demand. The Customer's service associated with the RGS will be metered at a single metering point and the metering equipment will measure energy delivered by the Company to the Customer, and also measure energy delivered by the Customer to the Company. The Customer agrees to provide safe and reasonable access to the premises for installation of this equipment and its future maintenance or removal.
- 17. The Customer agrees to permit the Company, if it should so choose, to inspect the RGS and its component equipment and the documents necessary to ensure compliance with various sections of this Agreement both before and after the Customer RGS goes into service and to witness the initial testing of the Customer's RGS equipment and protective apparatus. The Company shall provide the Customer with as much notice as reasonably practicable; either in writing, e-mail, facsimile or by phone, as to when the Company may conduct inspection or document review. Upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, Customer agrees to provide the Company access to the Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed by the Agreement or, if necessary, to meet the Company's legal obligation to provide service to its customers. The Customer shall notify the Company at least 10 days prior to the inservice date of the RGS to provide sufficient notice for the Company to be able to be present, if it so chooses, when the RGS is placed in service.
- 18. Once the Company has received the Customer's written documentation that the requirements of this Agreement have been met and the correct operation of the manual switch has been demonstrated to a Company representative, the Company will, within 10 business days, send written notice that parallel operation of the RGS may commence.



- 19. The Customer shall not have the right to assign its benefits or obligations under this Agreement without the Company's prior written consent and such consent shall not be unreasonably withheld. The Company may require the assignee to sign a new copy of this Agreement, agreeing to all its requirements and paying the applicable processing charge.
- 20. In executing this Agreement, the Company does not, nor should it be construed to extend its credit or financial support for the benefit or any third parties lending money to or having other transactions with Customer or any assignee of this Agreement.
- 21. On termination of services pursuant to this Agreement, the Company shall open and padlock the manual disconnect switch and remove any additional metering equipment related to this Agreement. At the Customer's expense, within 10 working days following the termination, the Customer shall permanently isolate the RGS and any associated equipment from the Company's electric supply system, notify the Company that the isolation is complete, and coordinate with the Company for return of the Company's lock.
- 22. This Agreement supersedes all previous agreements and representations either written or verbal heretofore made between the Company and Customer with respect to matters herein contained. This Agreement, when duly executed, constitutes the only Agreement between parties hereto relative to the matters herein described.
- 23. This Agreement 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 it may be modified, changed, or amended from time to time.
- 24. This Agreement incorporates by reference the terms of the tariff filed with the Florida Public Serviced Commission by Tampa Electric Company, including Rate Schedule NM-1, and associated technical terms and abbreviations, general rules and regulations and standard electric service requirements (as may be applicable) are incorporated by reference, as amended from time to time. To the extent of any conflict between this Agreement and such tariff, the tariff shall control.
- 25. The Company and Customer recognize that the Florida Public Service Commission Rules, including those Rules directly addressing the subject of this Agreement, may be amended from time to time. In the event that such rules are amended that affect the terms and conditions of this Agreement, the Company and Customer agree to supersede and replace this Agreement with a new Interconnection Agreement which complies with the amended rules.





- 26. This Agreement shall inure to the benefit of and be binding upon the respective heirs, legal representatives, successors and assigns of the parties hereto. If this Agreement is assigned, the Customer shall notify the Company prior to the effective date of the assignment.
- 27. The Company or Customer may seek resolution of disputes arising out of the interpretation of this Agreement pursuant to Rule 25-22.032, F.A.C. Customer Complaints, or Rule 25-22.036, F.A.C., Initiation of Formal Proceedings.

IN WITNESS WHEREOF, Customer and the Company have executed this Agreement the day and year first above written.

WITNESSES:	CUSTOMER By: Its:
WITNESSES:	COMPANY By: Its:



STANDARD INTERCONNECTION AGREEMENT FOR TIER 3 RENEWABLE GENERATOR SYSTEMS

This Agreement is made and entered into this _____day of _____, 20____, by and between______, (hereinafter called "Customer"), located at _______, Florida and Tampa Electric Company (hereafter called "Company"), a corporation organized under the laws of the State of Florida. The Customer and the Company shall collectively be called the "Parties". The physical location / premise where the interconnection is taking place is ______.

WITNESSETH:

WHEREAS, a Tier 3 Renewable Generator System (RGS) is an electric generating system that uses one or more of the following fuels or energy sources: hydrogen, biomass, solar energy, geothermal energy, wind energy, ocean energy, waste heat, or hydroelectric power as defined in Section 377.803, Florida Statutes, rated above a lower limit of 100 kilowatts (kW) and no more than 2 megawatts (MW) alternating current (AC) power output and is primarily intended to offset part or all of a customer's current electricity.

WHEREAS, the Customer has made a request (by providing the Company with a completed application) to interconnect its owned or leased RGS with the Company's electrical supply grid at the physical location / premise identified above.

NOW, THEREFORE, that and for the mutual covenants and agreements expressed herein, the Company and the Customer agree as follows:

- 1. The Customer certifies that the RGS equipment, its installation, its operation and its maintenance shall be in compliance with the following standards:
 - a. IEEE-1547 (2003) Standard for Interconnecting Distributed Resources with Electric Power System;
 - b. IEEE-1547.1 (2005) Standard Conformance Test Procedures for Equipment Interconnection Distributed Resources with Electric Power Systems;
 - c. UL-1741 (2005) Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources.
 - d. The National Electric Code, state and/or local building codes, mechanical codes and/or electrical codes;
 - e. The manufacturer's installation, operation and maintenance instructions.



- 2. A Customer is not precluded from contracting for the lease, operation or maintenance of an RGS with a third party. Such lease may not provide terms or conditions that provided for any payments under the agreements to in any way mimic or reflect the purchase of energy produced by the RGS.
- 3. The Customer shall provide a copy of the manufacturer's installation, operation and maintenance instructions to the Company. If the RGS is leased to the Customer by a third party, or if operation or maintenance of the RGS is to be performed by a third party, the lease or performance agreements and any pertinent documents related to those agreements, shall be provided to the Company.
- 4. The Customer shall have the completed RGS inspected and approved by the appropriate code authorities having jurisdiction. The Customer shall provide proof of this inspection and approval to the Company.
- 5. The Customer certifies that the RGS equipment includes a utility-interactive inverter or interconnection system equipment that ceases to interconnect with the utility upon a loss of utility power. For the inverter to be considered for certification for interconnected operation by the Company it must have been submitted by a manufacturer to a nationally recognized testing laboratory (NRTL) to comply with UL 1741. The NRTL shall be approved by the Occupational Safety & Health Administration (OSHA). If an interconnection study is deemed necessary by Tampa Electric, further design review, testing or additional equipment (as identified in any such study) may be required by Tampa Electric.
- 6. The Customer shall not energize the Company's system when the Company's system is de-energized. The Customer shall cease to energize the Company's system during a faulted condition on the Company's system. The Customer shall cease to energize the Company's system prior to the automatic or non-automatic reclosing of the Company's protective device(s). There shall be no intentional islanding, as described in IEEE 1547, between the Customer's and the Company's systems



- 7. "Gross power rating" (GPR) means the total manufacturer's AC nameplate generating capacity of an on-site customer-owned renewable generation system that will be interconnected to and operate in parallel with the investor-owned utility's distribution facilities. For inverter-based systems, the GPR shall be calculated by multiplying the total installed DC nameplate generating capacity by .85 in order to account for losses during the conversion from DC to AC. It is the Customer's responsibility to notify the Company of any change to the GPR of the RGS by submitting a new application for interconnection specifying the modifications at least 30 days prior to making the modifications. Decrease in GPR below the 100 kW limit would necessitate entering into a new agreement at either Tier 1 or Tier 2 which may impose or remove requirements on the Customer. In any case, increases in GPR above 2 MW would necessitate an entirely new interconnection process not covered under the Tier 1, Tier 2 or Tier 3 agreements.
- 8. The RGS must have a GPR that does not exceed 90% of the Customer's utility distribution service rating at the Customer's location. If the GPR does exceed that 90% limit, the Customer shall be responsible to pay the cost of upgrades for that distribution service to accommodate the GPR capacity and ensure the 90% threshold is not breached.
- 9. The Customer shall maintain general liability insurance for personal injury and property damage in the amount of not less than two million dollars (\$2,000,000). The Customer shall provide initial proof of insurance, or sufficient guarantee and proof of self-insurance, evidencing the Customer's insurance as a covered addition to the Customer's insured property. The Customer shall submit similar proof of continuing insurance coverage within 30 days of any policy renewal.
- 10. Subject to an approved inspection, including installation of acceptable disconnect switch, this Agreement shall be executed by the Company within 30 calendar days of receipt of a completed application if there is no need for an interconnection study. The Customer shall pay to the Company a \$500 one-time, nonrefundable fee for processing this Agreement.



- 11. If the Company determines that an interconnection study is necessary to ensure the safe and reliable interconnection of the Customer's RGS and the Company's system, a fee may be imposed for such study based on the Company's actual costs. Should such a study be needed, the Customer shall pay a deposit of the lesser of 50 percent of good faith estimated interconnection study costs or earnest money of **\$1,000**. The final study fee will be based on actual study costs which will be invoiced to the Customer after the study is completed and delivered, less the deposit and without interest, and will include a summary of professional time. If the deposit exceeds the invoiced fees, the Company shall refund any excess within 30 calendar days of the invoice without interest. This Agreement shall be entered into within 90 days assuming data required to perform the study is promptly provided by the Customer. If, as a result of any interconnection study that is performed associated with the RGS, it is determined that the Company's system or associated equipment must be expanded or costs must be incurred to accommodate the safe and reliable operation of the RGS on an interconnected basis with the Company, the Customer may be liable for charges to make such expansion or recoup such costs. Any such charges shall not be assessed on the Customer without prior approval of the Florida Public Service Commission as per Rule 25-6.065(4)(h). The Agreement shall not be entered into until the expansion or other work identified in the study has been completed and payment arranged.
- 12. The Customer is responsible for the protection of its generation equipment, inverters, protection devices, and other system components from damage from the normal and abnormal operations that occur on the Company's utility system in delivering and restoring system power. The Customer is also responsible for ensuring that the RGS equipment is inspected, maintained, and tested regularly in accordance with the manufacturer's instructions to ensure that it is operating correctly and safely. Such inspection should occur after large storms have traversed the Customer's location and after connection with the Company's system has been restored.
- 13. The Customer shall install, at the Customer's expense, a manual disconnect switch of the visible load break type (or a type mutually agreed on by the Customer and the Company) to provide a separation point between the AC power output of the RGS and any Customer wiring connected to the Company's utility system such that back feed from the RGS to the Company's utility system can not occur when the switch is in the open position. The manual disconnect switch shall be mounted separate from the meter socket on an exterior surface adjacent to the meter. The switch shall be readily accessible to the Company and capable of being locked in the open position with a Company padlock.



- 14. The Company may open the switch, isolating the RGS, without prior notice to the Customer. To the extent practical, however, prior notice shall be given. If prior notice is not given, the utility shall at the time of disconnection leave a door hanger notifying the Customer that the RGS has been disconnected, including an explanation of the condition necessitating such action. The switch will be re-closed by the Company as soon as practical once the conditions causing the disconnection cease to exist. Typical conditions which may require the switch to be opened include, but are not limited to:
 - Company utility system emergencies or maintenance requirements.
 - Hazardous conditions existing on the Company's utility system due to the operation of the Customer's RGS generation or protective equipment as determined by the Company.
 - Adverse electrical effects (such as power quality problems) on the electrical equipment of the company's other electric consumers caused by the RGS as determined by the Company.
 - Failure of the Customer to maintain the required insurance for the duration of this Agreement.
- 15. The Customer agrees to indemnify and hold harmless the Company, its subsidiaries or affiliates, and their respective employees, officers and directors, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Company, its subsidiaries, affiliates, and their respective employees, officers and directors may hereafter incur, suffer or be required to pay by reason of negligence on the part of the Customer under the obligation of this Agreement. The Company agrees to indemnify and hold harmless the Customer, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Customer may hereafter incur, suffer or be required to pay by reason of negligence on the part of the obligation of this Agreement. The Company agrees to indemnify and hold harmless the Customer, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Customer may hereafter incur, suffer or be required to pay by reason of negligence on the part of the company under the obligations of this Agreement.
- 16. In no event shall any statement, representation, or lack thereof, either express or implied, by the Company, relieve the Customer of exclusive responsibility for the Customer's RGS. Specifically, any Company inspection of the RGS shall not be construed as confirming or endorsing the RGS design or its operating or maintenance procedures nor as a warranty or guarantee as to the safety, reliability, or durability of the RGS equipment. The Company's inspection, acceptance, or its failure to inspect shall not be deemed an endorsement of any RGS equipment or procedure.



- 17. The Company will furnish, install, own and maintain metering equipment to measure kilowatt-hours (kWh) of energy and, if applicable, the kilowatts of demand and time of use of said energy and demand. The Customer's service associated with the RGS will be metered at a single metering point and the metering equipment will measure energy delivered by the Company to the Customer, and also measure energy delivered by the Customer to the Company. The Customer agrees to provide safe and reasonable access to the premises for installation of this equipment and its future maintenance or removal.
- 18. The Customer agrees to permit the Company, if it should so choose, to inspect the RGS and its component equipment and the documents necessary to ensure compliance with various sections of this Agreement both before and after the Customer RGS goes into service and to witness the initial testing of the Customer's RGS equipment and protective apparatus. The Company shall provide the Customer with as much notice as reasonably practicable; either in writing, e-mail, facsimile or by phone, as to when the Company may conduct inspection or document review. Upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, Customer agrees to provide the Company access to the Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed by the Agreement or, if necessary, to meet the Company's legal obligation to provide service to its customers. The Customer shall notify the Company at least 10 days prior to the inservice date of the RGS to provide sufficient notice for the Company to be able to be present, if it so chooses, when the RGS is placed in service.
- 19. Once the Company has received the Customer's written documentation that the requirements of this Agreement have been met and the correct operation of the manual switch has been demonstrated to a Company representative, the Company will, within 10 business days, send written notice that parallel operation of the RGS may commence.
- 20. The Customer shall not have the right to assign its benefits or obligations under this Agreement without the Company's prior written consent and such consent shall not be unreasonably withheld. The Company may require the assignee to sign a new copy of this Agreement, agreeing to all its requirements and paying the applicable processing charge.



- 21. In executing this Agreement, the Company does not, nor should it be construed to extend its credit or financial support for the benefit or any third parties lending money to or having other transactions with Customer or any assignee of this Agreement.
- 22. On termination of services pursuant to this Agreement, the Company shall open and padlock the manual disconnect switch and remove any additional metering equipment related to this Agreement. At the Customer's expense, within 10 working days following the termination, the Customer shall permanently isolate the RGS and any associated equipment from the Company's electric supply system, notify the Company that the isolation is complete, and coordinate with the Company for return of the Company's lock.
- 23. This Agreement supersedes all previous agreements and representations either written or verbal heretofore made between the Company and Customer with respect to matters herein contained. This Agreement, when duly executed, constitutes the only Agreement between parties hereto relative to the matters herein described.
- 24. This Agreement 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 it may be modified, changed, or amended from time to time.
- 25. This Agreement incorporates by reference the terms of the tariff filed with the Florida Public Service Commission by Tampa Electric Company, including Rate Schedule NM-1, and associated technical terms and abbreviations, general rules and regulations and standard electric service requirements (as may be applicable) are incorporated by reference, as amended from time to time. To the extent of any conflict between this Agreement and such tariff, the tariff shall control.
- 26. The Company and Customer recognize that the Florida Public Service Commission Rules, including those Rules directly addressing the subject of this Agreement, may be amended from time to time. In the event that such rules are amended that affect the terms and conditions of this Agreement, the Company and Customer agree to supersede and replace this Agreement with a new Interconnection Agreement which complies with the amended rules.
- 27. This Agreement shall inure to the benefit of and be binding upon the respective heirs, legal representatives, successors and assigns of the parties hereto. If this Agreement is assigned, the Customer shall notify the Company prior to the effective date of the assignment.

ORIGINAL SHEET NO. 8.1105



28. Company or Customer may seek resolution of disputes arising out of the interpretation of this Agreement pursuant to Rule 25-22.032, F.A.C. Customer Complaints, or Rule 25-22.036, F.A.C., Initiation of Formal Proceedings.

IN WITNESS WHEREOF, Customer and the Company have executed this Agreement the day and year first above written.

WITNESSES:

CUSTOMER By:_____

Ite.	
no.	

WITNESSES:

COMPANY

By:______ Its:______



SEVENTH SIXTH REVISED SHEET NO. 8.010 CANCELS SIXTH FIFTH REVISED SHEET NO. 8.010

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COGENERATION AND SMALL POWER PRODUCTION

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ISSUED BY: C. R. Black River Residenter MEER-DATE DATE EFFECTIVE: November 1, 2007



FOURTH THIRD REVISED SHEET NO. 8.015 CANCELS THIRD SECOND REVISED SHEET NO. 8.015

<u>Title</u>	<u>Sheet No.</u>
Standard Interconnection Agreement for Tier 1 Renewable Generator Systems	<u>8.1000</u>
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RESERVED FOR FUTURE USE



FIRST REVISED SHEET NO. 8.1000 CANCELS ORIGINAL SHEET NO. 8.1000



TAMPA ELECTRIC

STANDARD INTERCONNECTION AGREEMENT FOR SMALL PHOTOVOLTAIC SYSTEMS -10 KW OR LESS

This Agreement is made and entered into this	day of		, <u>20</u> , by and
between	, (hereinafter	-called	"Customer"), located at
in	l		_, Florida and Tampa
Electric Company (hereafter called "Company"), a corporatio	n organ	ized under the laws of the

State of Florida. The Customer and the Company shall collectively be called the "Parties".

WITNESSETH:

WHEREAS, a Small Photovoltaic System (SPS) is a solar powered generating system that uses an inverter rated at no more than 10 kW alternating current (AC) power output and is primarily intended to offset part or all of a customer's current electricity requirements.

WHEREAS, the Customer has made a request to interconnect its SPS with the Company's electrical supply grid.

NOW, THEREFORE, that and for the mutual covenants and agreements expressed herein, the Company and the Customer agree as follows:

- 1. The Customer certifies that the SPS equipment, its installation, its operation and its maintenance shall be in compliance with IEEE-929 Standards and UL-1741 Standards, the National Electric Code, state and/or local building codes, mechanical codes and/or electrical codes and the manufacturer's installation, operation and maintenance instructions. The customer shall provide a copy of the manufacturer's installation, operation and maintenance instructions to the Company, which shall be attached to this Agreement.
- 2.The Customer shall have the completed SPS inspected and approved by the appropriate code authorities having jurisdiction. The Customer shall provide proof of this inspection and approval, which shall be attached to this Agreement.
- 3. The Customer shall maintain general liability insurance for personal injury and property damage in the amount of not less than one hundred thousand dollars (\$100,000). The Customer shall provide initial proof of insurance in the form of a certificate attached to this Agreement evidencing the Customer's insurance coverage in effect at the time of interconnection. The certificate shall list the SPS as a covered addition to the Customer's insured property. The Customer shall submit similar proof of continuing insurance coverage within 30 days of any policy renewal.

Continued to Sheet No. 8.1005

ISSUED BY: <u>C. R. Black</u>J. B. Ramil, President

DATE EFFECTIVE: May 14, 2002



STANDARD INTERCONNECTION AGREEMENT FOR TIER 1 RENEWABLE GENERATOR SYSTEMS

 This Agreement is made and entered into this
 day of
 , 20
 , by and

 between
 , (hereinafter called "Customer"), located at

 in
 , Florida and Tampa Electric Company

 (hereafter called "Company"), a corporation organized under the laws of the State of Florida.

 The Customer and the Company shall collectively be called the "Parties". The physical

 location / premise where the interconnection is taking place is

WITNESSETH:

WHEREAS, a Tier 1 Renewable Generator System (RGS) is an electric generating system that uses one or more of the following fuels or energy sources: hydrogen, biomass, solar energy, geothermal energy, wind energy, ocean energy, waste heat, or hydroelectric power as defined in Section 377.803, Florida Statutes, rated at no more than 10 kilowatts (kW) alternating current (AC) power output and is primarily intended to offset part or all of a customer's current electricity requirements.

WHEREAS, the Customer has made a request (by providing the Company with a completed application) to interconnect its owned or leased RGS with the Company's electrical supply grid at the physical location / premise identified above.

NOW, THEREFORE, that and for the mutual covenants and agreements expressed herein, the Company and the Customer agree as follows:

- 1. The Customer certifies that the RGS equipment, its installation, its operation and its maintenance shall be in compliance with the following standards:
 - a. IEEE-1547 (2003) Standard for Interconnecting Distributed Resources with Electric Power System;
 - b. IEEE-1547.1 (2005) Standard Conformance Test Procedures for Equipment Interconnection Distributed Resources with Electric Power Systems;
 - c. UL-1741 (2005) Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources.
 - <u>d.</u> The National Electric Code, state and/or local building codes, mechanical codes and/or electrical codes;
 - e. The manufacturer's installation, operation and maintenance instructions.



7.

FIRST REVISED SHEET NO. 8.1005 CANCELS ORIGINAL SHEET NO. 8.1005

Continued from Sheet No. 8.1000

- 4. The Customer shall pay to the Company a eighty-nine dollars (\$89), one-time, nonrefundable charge for processing this Agreement.
- 5. The Customer is responsible for the protection of its generation equipment, inverters, protection devices, and other system components from damage from the normal and abnormal operations that occur on the Company's utility system in delivering and restoring system power; and is responsible for insuring that the SPS equipment is inspected, maintained, and tested in accordance with the manufacturer's instructions to insure that it is operating correctly and safely.
- 6. The Customer shall install, at the Customer's expense, a manual disconnect switch of the visible load break type to provide a separation point between the AC power output of the SPS and any Customer wiring connected to the Company's utility system such that back feed from the SPS to the Company's utility system can not occur when the switch is in the open position. The manual disconnect switch shall be mounted separate from the meter socket on an exterior surface within six (6) feet of the meter. The switch shall be readily accessible to the Company and capable of being locked in the open position with a Company padlock.
 - The Company may open the switch, isolating the SPS, without prior notice to the Customer. To the extent practical, however, prior notice shall be given. The switch will be re-closed as soon as practical once the conditions causing the disconnection cease to exist. Typical conditions which may require the switch to be opened are:
 - Company utility system emergencies or maintenance requirements.
 - Hazardous conditions existing on the Company's utility system due to the operation of the Customer's SPS generation or protective equipment as determined by the Company.
 - Adverse electrical effects (such as power quality problems) on the electrical equipment of the company's other electric consumers caused by the SPS as determined by the Company.
 - Failure of the Customer to maintain the required insurance for the duration of this Agreement.

Continued to Sheet No. 8.1010

2. A Customer is not precluded from contracting for the lease, operation or maintenance of an RGS with a third party. Such lease may not provide terms or conditions that provided for any payments under the agreements to in any way mimic or reflect the purchase of energy produced by the RGS.



TAMPA ELECTRIC

- 3. The Customer shall provide a copy of the manufacturer's installation, operation and maintenance instructions to the Company. If the RGS is leased to the Customer by a third party, or if operation or maintenance of the RGS is to be performed by a third party, the lease or performance agreements and any pertinent documents related to those agreements, shall be provided to the Company.
- 4. The Customer shall have the completed RGS inspected and approved by the appropriate code authorities having jurisdiction. The Customer shall provide proof of this inspection and approval to the Company.
- 5. The Customer certifies that the RGS equipment includes a utility-interactive inverter or interconnection system equipment that ceases to interconnect with the utility upon a loss of utility power. The inverter shall be considered certified for interconnected operation if it has been submitted by a manufacturer to a nationally recognized testing laboratory (NRTL) to comply with UL 1741. The NRTL shall be approved by the Occupational Safety & Health Administration (OSHA).
- 6. The Customer shall not energize the Company's system when the Company's system is de-energized. The Customer shall cease to energize the Company's system during a faulted condition on the Company's system. The Customer shall cease to energize the Company's system prior to the automatic or non-automatic reclosing of the Company's protective device(s). There shall be no intentional islanding, as described in IEEE 1547, between the Customer's and the Company's systems
- 7. "Gross power rating" (GPR) means the total manufacturer's AC nameplate generating capacity of an on-site customer-owned renewable generation system that will be interconnected to and operate in parallel with the investor-owned utility's distribution facilities. For inverter-based systems, the GPR shall be calculated by multiplying the total installed DC nameplate generating capacity by .85 in order to account for losses during the conversion from DC to AC. It is the Customer's responsibility to notify the Company of any change to the GPR of the RGS by submitting a new application for interconnection specifying the modifications at least 30 days prior to making the modifications. Increase in GPR above the 10 kW limit would necessitate entering into a new agreement at either Tier 2 or Tier 3 which may impose additional requirements on the Customer. In any case, increases in GPR above 2 megawatts (MW) would necessitate an entirely new interconnection process not covered under the Tier 1, Tier 2 or Tier 3 agreements.


FIRST REVISED SHEET NO. 8.1010 CANCELS ORIGINAL SHEET NO. 8.1010

- 8. The RGS must have a GPR that does not exceed 90% of the Customer's utility distribution service rating at the Customer's location. If the GPR does exceed that 90% limit, the Customer shall be responsible to pay the cost of upgrades for that distribution service to accommodate the GPR capacity and ensure the 90% threshold is not breached.
- 9.Subject to an approved inspection, including installation of acceptable disconnect switch, this Agreement shall be executed by the Company within 30 calendar days of receipt of a completed application. The Company encourages the Customer to maintain general liability insurance for personal injury and property damage in the amount of not less than one hundred thousand dollars (\$100,000).
- 10.The Customer is responsible for the protection of its generation equipment, inverters, protection devices, and other system components from damage from the normal and abnormal operations that occur on the Company's utility system in delivering and restoring system power. The Customer is also responsible for ensuring that the RGS equipment is inspected, maintained, and tested regularly in accordance with the manufacturer's instructions to ensure that it is operating correctly and safely. Such inspection should occur after large storms have traversed the Customer's location and after connection with the Company's system has been restored.
- 11.The Customer shall install, at the Company's expense and subject to the approval of the cost by the Company, a manual disconnect switch of the visible load break type to provide a separation point between the AC power output of the RGS and any Customer wiring connected to the Company's utility system such that back feed from the RGS to the Company's utility system cannot occur when the switch is in the open position. The manual disconnect switch shall be mounted separate from the meter socket on an exterior surface adjacent to the meter. The switch shall be readily accessible to the Company and capable of being locked in the open position with a Company padlock. When locked and tagged in the open position by the Company, this switch will be under the control of the Company. If the switch installation cost proposed by the Customer or the Customer's contractor exceeds the Company's cost to have the switch installed through its own means, the Company shall install the switch, and the Customer to shall provide reasonable accommodation to the Company for such installation.
 - 8. The RGS must have a GPR that does not exceed 90% of the Customer's utility distribution service rating at the Customer's location. If the GPR does exceed that 90% limit, the Customer shall be responsible to pay the cost of upgrades for that distribution service to accommodate the GPR capacity and ensure the 90% threshold is not breached.
 - 9. Subject to an approved inspection, including installation of acceptable disconnect switch, this Agreement shall be executed by the Company within 30 calendar days of

ISSUED BY: <u>C. R. Black</u>J. B. Ramil, President



receipt of a completed application. The Company encourages the Customer to maintain general liability insurance for personal injury and property damage in the amount of not less than one hundred thousand dollars (\$100,000).

- 10. The Customer is responsible for the protection of its generation equipment, inverters, protection devices, and other system components from damage from the normal and abnormal operations that occur on the Company's utility system in delivering and restoring system power. The Customer is also responsible for ensuring that the RGS equipment is inspected, maintained, and tested regularly in accordance with the manufacturer's instructions to ensure that it is operating correctly and safely. Such inspection should occur after large storms have traversed the Customer's location and after connection with the Company's system has been restored.
- 11. The Customer shall install, at the Company's expense and subject to the approval of the cost by the Company, a manual disconnect switch of the visible load break type to provide a separation point between the AC power output of the RGS and any Customer wiring connected to the Company's utility system such that back feed from the RGS to the Company's utility system cannot occur when the switch is in the open position. The manual disconnect switch shall be mounted separate from the meter socket on an exterior surface adjacent to the meter. The switch shall be readily accessible to the Company and capable of being locked in the open position with a Company padlock. When locked and tagged in the open position by the Company, this switch will be under the control of the Company. If the switch installation cost proposed by the Customer or the Customer's contractor exceeds the Company's cost to have the switch installed through its own means, the Company shall install the switch, and the Customer to shall provide reasonable accommodation to the Company for such installation.

ISSUED BY: <u>C. R. Black</u>J. B. Ramil, President



FIRST REVISED SHEET NO. 8.1015 CANCELS ORIGINAL SHEET NO. 8.1015

Continued from Sheet No. 8.1005

12. The Customer agrees to indemnify and hold harmless the Company, its subsidiaries or affiliates, and their respective employees, officers and directors, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Company, its subsidiaries, affiliates, and their respective employees, officers and directors may hereafter incur, suffer or be required to pay by reason of negligence on the part of the Customer under the obligation of this Agreement. The Company agrees to indemnify and hold harmless the Customer, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the customer under the obligation of this Agreement. The Company agrees to indemnify and hold harmless the Customer, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Customer may hereafter incur, suffer or be required to pay by reason of the customer may hereafter incur, suffer or be obligations of the customer may and all liability, loss, damage, cost or expense, including attorney's fees, which the Customer may hereafter incur, suffer or be required to pay by reason of negligence on the part of the Company under the obligations of this Agreement.

13.In no event shall any statement, representation, or lack thereof, either express or implied, by the Company, relieve the Customer of exclusive responsibility for the Customer's SPS. Specifically, any Company inspection of the SPS shall not be construed as confirming or endorsing the SPS design or its operating or maintenance procedures nor as a warranty or guarantee as to the safety, reliability, or durability of the SPS equipment. The Company's inspection, acceptance, or its failure to inspect shall not be deemed an endorsement of any SPS equipment or procedure.

14. The Company will furnish, install, own and maintain metering equipment to measure the kilowatt-hours (kWh) delivered by the Company to the Customer, and if applicable, the kilowatt demand and time of use. For this account, the Customer's service will be metered with a single meter with two registers or a dual meter option. Either metering configuration will prevent reverse registrations. The metering equipment will measure energy delivered by the Company to the Customer, and also measure energy delivered by the Company. The Customer agrees to provide reasonable access to the premises for installation of this equipment and its future maintenance or removal.

15.Excess kWh are defined as the kWh produced by the Customer's SPS in excess of any kWh from the SPS used to self-serve the Customer's electric requirements. All excess kWh will be delivered to the Company's electric grid. The Company will credit the Customer's Company electric bill account for the value of the excess kWh. The value of the credit shall be based on the As-Available energy payments for Qualifying Facilities with standard kilowatt-hour metering, as specified in the Company's COG-1 tariff. Crediting may reflect a monthly lag.

Continued to Sheet No.8.1015

<u>12. The Company may open the switch, isolating the RGS, without prior notice to the Customer. To the extent practical, however, prior notice shall be given. If prior notice is not given, the utility shall at the time of disconnection leave a door hanger notifying the</u>

ISSUED BY: <u>C. R. Black</u>J. B. Ramil, President



Customer that the RGS has been disconnected, including an explanation of the condition necessitating such action. The switch will be re-closed by the Company as soon as practical once the conditions causing the disconnection cease to exist. Typical conditions which may require the switch to be opened include, but are not limited to:

- Company utility system emergencies or maintenance requirements.
- Hazardous conditions existing on the Company's utility system due to the operation of the Customer's RGS generation or protective equipment as determined by the Company.
- Adverse electrical effects (such as power quality problems) on the electrical equipment of the company's other electric consumers caused by the RGS as determined by the Company.
- 13. The Customer agrees to indemnify and hold harmless the Company, its subsidiaries or affiliates, and their respective employees, officers and directors, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Company, its subsidiaries, affiliates, and their respective employees, officers and directors may hereafter incur, suffer or be required to pay by reason of negligence on the part of the Customer under the obligation of this Agreement. The Company agrees to indemnify and hold harmless the Customer, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Customer may hereafter incur, suffer or be required to pay by reason of negligence on the part of the Company under the obligations of this Agreement.
- 14. In no event shall any statement, representation, or lack thereof, either express or implied, by the Company, relieve the Customer of exclusive responsibility for the Customer's RGS. Specifically, any Company inspection of the RGS shall not be construed as confirming or endorsing the RGS design or its operating or maintenance procedures nor as a warranty or guarantee as to the safety, reliability, or durability of the RGS equipment. The Company's inspection, acceptance, or its failure to inspect shall not be deemed an endorsement of any RGS equipment or procedure.

ISSUED BY: <u>C. R. Black</u>J. B. Ramil, President



Continued from Sheet No. 8.1015

IN WITNESS WHEREOF, Customer and the Company have executed this Agreement the day and year first above written.

WITNESSES:	CUSTOMER
	By:By:
WITNESSES:	COMPANY Bv:
	by

- 15. The Company will furnish, install, own and maintain metering equipment to measure kilowatt-hours (kWh) of energy and, if applicable, the kW of demand and time of use of said energy and demand. The Customer's service associated with the RGS will be metered at a single metering point and the metering equipment will measure energy delivered by the Company to the Customer, and also measure energy delivered by the Customer to the Company. The Customer agrees to provide safe and reasonable access to the premises for installation of this equipment and its future maintenance or removal.
- 16. The Customer agrees to permit the Company, if it should so choose, to inspect the RGS and its component equipment and the documents necessary to ensure compliance with various sections of this Agreement both before and after the Customer RGS goes into service and to witness the initial testing of the Customer's RGS equipment and protective apparatus. The Company shall provide the Customer with as much notice as reasonably practicable; either in writing, e-mail, facsimile or by phone, as to when the Company may conduct inspection or document review. Upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, Customer agrees to provide the Company access to the Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed by the Agreement or, if necessary, to meet the Company at least 10 days prior to the inservice date of the RGS to provide sufficient notice for the Company to be able to be present, if it so chooses, when the RGS is placed in service.
- <u>17.Once the Company has received the Customer's written documentation that the</u> requirements of this Agreement have been met and the correct operation of the manual switch has been demonstrated to a Company representative, the Company will, within <u>10 business days, send written notice that parallel operation of the RGS may</u> commence.

ISSUED BY: <u>C. R. Black</u>J. B. Ramil, President



FIRST REVISED SHEET NO. 8.1020 CANCELS ORIGINAL SHEET NO. 8.1020

- 18. The Customer shall not have the right to assign its benefits or obligations under this Agreement without the Company's prior written consent and such consent shall not be unreasonably withheld. The Company may require the assignee to sign a new copy of this Agreement, agreeing to all its requirements and paying the applicable processing charge.
- 19. In executing this Agreement, the Company does not, nor should it be construed to extend its credit or financial support for the benefit or any third parties lending money to or having other transactions with Customer or any assignee of this Agreement.





- 20. On termination of services pursuant to this Agreement, the Company shall open and padlock the manual disconnect switch and remove any additional metering equipment related to this Agreement. At the Customer's expense, within 10 working days following the termination, the Customer shall permanently isolate the RGS and any associated equipment from the Company's electric supply system, notify the Company that the isolation is complete, and coordinate with the Company for return of the Company's lock.
- 21. This Agreement supersedes all previous agreements and representations either written or verbal heretofore made between the Company and Customer with respect to matters herein contained. This Agreement, when duly executed, constitutes the only Agreement between parties hereto relative to the matters herein described.
- 22. This Agreement 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 it may be modified, changed, or amended from time to time.
- 23. This Agreement incorporates by reference the terms of the tariff filed with the Florida Public Serviced Commission by Tampa Electric Company, including Rate Schedule NM-1, and associated technical terms and abbreviations, general rules and regulations and standard electric service requirements (as may be applicable) are incorporated by reference, as amended from time to time. To the extent of any conflict between this Agreement and such tariff, the tariff shall control.
- 24. The Company and Customer recognize that the Florida Public Service Commission Rules, including those Rules directly addressing the subject of this Agreement, may be amended from time to time. In the event that such rules are amended that affect the terms and conditions of this Agreement, the Company and Customer agree to supersede and replace this Agreement with a new Interconnection Agreement which complies with the amended rules.
- 25. This Agreement shall inure to the benefit of and be binding upon the respective heirs, legal representatives, successors and assigns of the parties hereto. If this Agreement is assigned, the Customer shall notify the Company prior to the effective date of the assignment.
- 26. The Company or Customer may seek resolution of disputes arising out of the interpretation of this Agreement pursuant to Rule 25-22.032, F.A.C. Customer Complaints, or Rule 25-22.036, F.A.C., Initiation of Formal Proceedings.



IN WITNESS WHEREOF, Customer and the Company have executed this Agreement the day and year first above written.

CUSTOMER

<u>By:</u>

Its:

COMPANY

By:

Its:

ISSUED BY: C. R. Black, President



STANDARD INTERCONNECTION AGREEMENT FOR TIER 2 RENEWABLE GENERATOR SYSTEMS

 This Agreement is made and entered into this
 day of
 , 20
 , by and

 between
 , (hereinafter called "Customer"), located at

 in
 , Florida and Tampa Electric Company

 (hereafter called "Company"), a corporation organized under the laws of the State of Florida.

 The Customer and the Company shall collectively be called the "Parties". The physical location

 / premise where the interconnection is taking place is

WITNESSETH:

WHEREAS, a Tier 2 Renewable Generator System (RGS) is an electric generating system that uses one or more of the following fuels or energy sources: hydrogen, biomass, solar energy, geothermal energy, wind energy, ocean energy, waste heat, or hydroelectric power as defined in Section 377.803, Florida Statutes, rated above a lower limit of 10 kilowatts (kW) and no more than 100 kW alternating current (AC) power output and is primarily intended to offset part or all of a customer's current electricity requirements.

WHEREAS, the Customer has made a request (by providing the Company with a completed application) to interconnect its owned or leased RGS with the Company's electrical supply grid at the physical location / premise identified above.

NOW, THEREFORE, that and for the mutual covenants and agreements expressed herein, the Company and the Customer agree as follows:

- 1. The Customer certifies that the RGS equipment, its installation, its operation and its maintenance shall be in compliance with the following standards:
 - a. IEEE-1547 (2003) Standard for Interconnecting Distributed Resources with Electric Power System;
 - b. IEEE-1547.1 (2005) Standard Conformance Test Procedures for Equipment Interconnection Distributed Resources with Electric Power Systems;
 - c. UL-1741 (2005) Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources.
 - d. The National Electric Code, state and/or local building codes, mechanical codes and/or electrical codes;
 - e. The manufacturer's installation, operation and maintenance instructions.



- 2. A Customer is not precluded from contracting for the lease, operation or maintenance of an RGS with a third party. Such lease may not provide terms or conditions that provided for any payments under the agreements to in any way mimic or reflect the purchase of energy produced by the RGS.
- 3. The Customer shall provide a copy of the manufacturer's installation, operation and maintenance instructions to the Company. If the RGS is leased to the Customer by a third party, or if operation or maintenance of the RGS is to be performed by a third party, the lease or performance agreements and any pertinent documents related to those agreements, shall be provided to the Company.
- 4. The Customer shall have the completed RGS inspected and approved by the appropriate code authorities having jurisdiction. The Customer shall provide proof of this inspection and approval to the Company.
- 5. The Customer certifies that the RGS equipment includes a utility-interactive inverter or interconnection system equipment that ceases to interconnect with the utility upon a loss of utility power. The inverter shall be considered certified for interconnected operation if it has been submitted by a manufacturer to a nationally recognized testing laboratory (NRTL) to comply with UL 1741. The NRTL shall be approved by the Occupational Safety & Health Administration (OSHA).
- 6. The Customer shall not energize the Company's system when the Company's system is de-energized. The Customer shall cease to energize the Company's system during a faulted condition on the Company's system. The Customer shall cease to energize the Company's system prior to the automatic or non-automatic reclosing of the Company's protective device(s). There shall be no intentional islanding, as described in IEEE 1547, between the Customer's and the Company's systems
- 7. "Gross power rating" (GPR) means the total manufacturer's AC nameplate generating capacity of an on-site customer-owned renewable generation system that will be interconnected to and operate in parallel with the investor-owned utility's distribution facilities. For inverter-based systems, the GPR shall be calculated by multiplying the total installed DC nameplate generating capacity by .85 in order to account for losses during the conversion from DC to AC. It is the Customer's responsibility to notify the Company of any change to the GPR of the RGS by submitting a new application for interconnection specifying the modifications at least 30 days prior to making the modifications. Decrease in GPR below the 10 kW limit, or increase in GPR above the 100 kW limit would necessitate entering into a new agreement at either Tier 1 or Tier 3 which may impose or remove additional requirements on the Customer. In any case, increases in GPR above 2 megawatts (MW) would necessitate an entirely new interconnection process not covered under the Tier 1, Tier 2 or Tier 3 agreements.



- 8. The RGS must have a GPR that does not exceed 90% of the Customer's utility distribution service rating at the Customer's location. If the GPR does exceed that 90% limit, the Customer shall be responsible to pay the cost of upgrades for that distribution service to accommodate the GPR capacity and ensure the 90% threshold is not breached.
- 9. The Customer shall maintain general liability insurance for personal injury and property damage in the amount of not less than one million dollars (\$1,000,000). The Customer shall provide initial proof of insurance, or sufficient guarantee and proof of self-insurance, evidencing the Customer's insurance as a covered addition to the Customer's insured property. The Customer shall submit similar proof of continuing insurance coverage within 30 days of any policy renewal.
- 10. Subject to an approved inspection, including installation of acceptable disconnect switch or completion of any expansion or other work identified in an interconnection study, this Agreement shall be executed by the Company within 30 calendar days of receipt of a completed application. If after initial inspection the Company determines that an interconnection study is necessary, there shall be no delay in execution of this Agreement associated with any such study and no charge to the Customer associated with the study. The Customer shall pay to the Company a \$250, one-time, nonrefundable fee for processing this Agreement. If, as a result of any interconnection study that is performed associated with the RGS, it is determined that the Company's system or associated equipment must be expanded or costs must be incurred to accommodate the safe and reliable operation of the RGS on an interconnected basis with the Company, the Customer may be liable for charges to make such expansion or recoup such costs. Any such charges shall not be assessed on the Customer without prior approval of the Florida Public Service Commission as per Rule 25-6.065(4)(h). The Agreement shall not be entered into until the expansion or other work identified in the study has been completed and payment arranged for.
- 11. The Customer is responsible for the protection of its generation equipment, inverters, protection devices, and other system components from damage from the normal and abnormal operations that occur on the Company's utility system in delivering and restoring system power. The Customer is also responsible for ensuring that the RGS equipment is inspected, maintained, and tested regularly in accordance with the manufacturer's instructions to ensure that it is operating correctly and safely. Such inspection should occur after large storms have traversed the Customer's location and after connection with the Company's system has been restored.



- 12. The Customer shall install, at the Customer's expense a manual disconnect switch of the visible load break type (or a type mutually agreed to by the Customer and the Company) to provide a separation point between the AC power output of the RGS and any Customer wiring connected to the Company's utility system such that back feed from the RGS to the Company's utility system can not occur when the switch is in the open position. The manual disconnect switch shall be mounted separate from the meter socket on an exterior surface adjacent to the meter. The switch shall be readily accessible to the Company and capable of being locked in the open position with a Company padlock.
- 13. The Company may open the switch, isolating the RGS, without prior notice to the Customer. To the extent practical, however, prior notice shall be given. If prior notice is not given, the utility shall at the time of disconnection leave a door hanger notifying the Customer that the RGS has been disconnected, including an explanation of the condition necessitating such action. The switch will be re-closed by the Company as soon as practical once the conditions causing the disconnection cease to exist. Typical conditions which may require the switch to be opened include, but are not limited to:
 - Company utility system emergencies or maintenance requirements.
 - Hazardous conditions existing on the Company's utility system due to the operation of the Customer's RGS generation or protective equipment as determined by the Company.
 - Adverse electrical effects (such as power quality problems) on the electrical equipment of the company's other electric consumers caused by the RGS as determined by the Company.
 - Failure of the Customer to maintain the required insurance for the duration of this Agreement.
- 14. The Customer agrees to indemnify and hold harmless the Company, its subsidiaries or affiliates, and their respective employees, officers and directors, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Company, its subsidiaries, affiliates, and their respective employees, officers and directors may hereafter incur, suffer or be required to pay by reason of negligence on the part of the Customer under the obligation of this Agreement. The Company agrees to indemnify and hold harmless the Customer, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Company agrees to indemnify and hold harmless the Customer, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Customer may hereafter incur, suffer or be required to pay by reason of negligence on the part of the obligations of this Agreement.



- 15. In no event shall any statement, representation, or lack thereof, either express or implied, by the Company, relieve the Customer of exclusive responsibility for the Customer's RGS. Specifically, any Company inspection of the RGS shall not be construed as confirming or endorsing the RGS design or its operating or maintenance procedures nor as a warranty or guarantee as to the safety, reliability, or durability of the RGS equipment. The Company's inspection, acceptance, or its failure to inspect shall not be deemed an endorsement of any RGS equipment or procedure.
- 16. The Company will furnish, install, own and maintain metering equipment to measure kilowatt-hours (kWh) of energy and, if applicable, the kW of demand and time of use of said energy and demand. The Customer's service associated with the RGS will be metered at a single metering point and the metering equipment will measure energy delivered by the Company to the Customer, and also measure energy delivered by the Customer to the Company. The Customer agrees to provide safe and reasonable access to the premises for installation of this equipment and its future maintenance or removal.
- 17. The Customer agrees to permit the Company, if it should so choose, to inspect the RGS and its component equipment and the documents necessary to ensure compliance with various sections of this Agreement both before and after the Customer RGS goes into service and to witness the initial testing of the Customer's RGS equipment and protective apparatus. The Company shall provide the Customer with as much notice as reasonably practicable; either in writing, e-mail, facsimile or by phone, as to when the Company may conduct inspection or document review. Upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, Customer agrees to provide the Company access to the Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed by the Agreement or, if necessary, to meet the Company's legal obligation to provide service to its customers. The Customer shall notify the Company at least 10 days prior to the inservice date of the RGS to provide sufficient notice for the Company to be able to be present, if it so chooses, when the RGS is placed in service.
- 18. Once the Company has received the Customer's written documentation that the requirements of this Agreement have been met and the correct operation of the manual switch has been demonstrated to a Company representative, the Company will, within 10 business days, send written notice that parallel operation of the RGS may commence.



- 19. The Customer shall not have the right to assign its benefits or obligations under this Agreement without the Company's prior written consent and such consent shall not be unreasonably withheld. The Company may require the assignee to sign a new copy of this Agreement, agreeing to all its requirements and paying the applicable processing charge.
- 20. In executing this Agreement, the Company does not, nor should it be construed to extend its credit or financial support for the benefit or any third parties lending money to or having other transactions with Customer or any assignee of this Agreement.
- 21. On termination of services pursuant to this Agreement, the Company shall open and padlock the manual disconnect switch and remove any additional metering equipment related to this Agreement. At the Customer's expense, within 10 working days following the termination, the Customer shall permanently isolate the RGS and any associated equipment from the Company's electric supply system, notify the Company that the isolation is complete, and coordinate with the Company for return of the Company's lock.
- 22. This Agreement supersedes all previous agreements and representations either written or verbal heretofore made between the Company and Customer with respect to matters herein contained. This Agreement, when duly executed, constitutes the only Agreement between parties hereto relative to the matters herein described.
- 23. This Agreement 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 it may be modified, changed, or amended from time to time.
- 24. This Agreement incorporates by reference the terms of the tariff filed with the Florida Public Serviced Commission by Tampa Electric Company, including Rate Schedule NM-1, and associated technical terms and abbreviations, general rules and regulations and standard electric service requirements (as may be applicable) are incorporated by reference, as amended from time to time. To the extent of any conflict between this Agreement and such tariff, the tariff shall control.
- 25. The Company and Customer recognize that the Florida Public Service Commission Rules, including those Rules directly addressing the subject of this Agreement, may be amended from time to time. In the event that such rules are amended that affect the terms and conditions of this Agreement, the Company and Customer agree to supersede and replace this Agreement with a new Interconnection Agreement which complies with the amended rules.



26. This Agreement shall inure to the benefit of and be binding upon the respective heirs, legal representatives, successors and assigns of the parties hereto. If this Agreement is assigned, the Customer shall notify the Company prior to the effective date of the assignment.

27. The Company or Customer may seek resolution of disputes arising out of the interpretation of this Agreement pursuant to Rule 25-22.032, F.A.C. Customer Complaints, or Rule 25-22.036, F.A.C., Initiation of Formal Proceedings.

IN WITNESS WHEREOF, Customer and the Company have executed this Agreement the day and year first above written.

WITNESSES:	CUSTOMER						
	By:						
	lts:						
WITNESSES:	COMPANY						
	By:						
	Its:						



STANDARD INTERCONNECTION AGREEMENT FOR TIER 3 RENEWABLE GENERATOR SYSTEMS

 This Agreement is made and entered into this
 day of
 , 20
 , by and

 between
 , (hereinafter called "Customer"), located at

 in
 , Florida and Tampa Electric Company

 (hereafter called "Company"), a corporation organized under the laws of the State of Florida.

 The Customer and the Company shall collectively be called the "Parties". The physical location

 / premise where the interconnection is taking place is

WITNESSETH:

WHEREAS, a Tier 3 Renewable Generator System (RGS) is an electric generating system that uses one or more of the following fuels or energy sources: hydrogen, biomass, solar energy, geothermal energy, wind energy, ocean energy, waste heat, or hydroelectric power as defined in Section 377.803, Florida Statutes, rated above a lower limit of 100 kilowatts (kW) and no more than 2 megawatts (MW) alternating current (AC) power output and is primarily intended to offset part or all of a customer's current electricity.

WHEREAS, the Customer has made a request (by providing the Company with a completed application) to interconnect its owned or leased RGS with the Company's electrical supply grid at the physical location / premise identified above.

NOW, THEREFORE, that and for the mutual covenants and agreements expressed herein, the Company and the Customer agree as follows:

- 1. The Customer certifies that the RGS equipment, its installation, its operation and its maintenance shall be in compliance with the following standards:
 - a. IEEE-1547 (2003) Standard for Interconnecting Distributed Resources with Electric Power System;
 - b. IEEE-1547.1 (2005) Standard Conformance Test Procedures for Equipment Interconnection Distributed Resources with Electric Power Systems;
 - c. UL-1741 (2005) Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources.
 - d. The National Electric Code, state and/or local building codes, mechanical codes and/or electrical codes;
 - e. The manufacturer's installation, operation and maintenance instructions.



- 2. A Customer is not precluded from contracting for the lease, operation or maintenance of an RGS with a third party. Such lease may not provide terms or conditions that provided for any payments under the agreements to in any way mimic or reflect the purchase of energy produced by the RGS.
- 3. The Customer shall provide a copy of the manufacturer's installation, operation and maintenance instructions to the Company. If the RGS is leased to the Customer by a third party, or if operation or maintenance of the RGS is to be performed by a third party, the lease or performance agreements and any pertinent documents related to those agreements, shall be provided to the Company.
- <u>4. The Customer shall have the completed RGS inspected and approved by the appropriate code authorities having jurisdiction. The Customer shall provide proof of this inspection and approval to the Company.</u>
- 5. The Customer certifies that the RGS equipment includes a utility-interactive inverter or interconnection system equipment that ceases to interconnect with the utility upon a loss of utility power. For the inverter to be considered for certification for interconnected operation by the Company it must have been submitted by a manufacturer to a nationally recognized testing laboratory (NRTL) to comply with UL 1741. The NRTL shall be approved by the Occupational Safety & Health Administration (OSHA). If an interconnection study is deemed necessary by Tampa Electric, further design review, testing or additional equipment (as identified in any such study) may be required by Tampa Electric.
- 6. The Customer shall not energize the Company's system when the Company's system is de-energized. The Customer shall cease to energize the Company's system during a faulted condition on the Company's system. The Customer shall cease to energize the Company's system prior to the automatic or non-automatic reclosing of the Company's protective device(s). There shall be no intentional islanding, as described in IEEE 1547, between the Customer's and the Company's systems



- 7. "Gross power rating" (GPR) means the total manufacturer's AC nameplate generating capacity of an on-site customer-owned renewable generation system that will be interconnected to and operate in parallel with the investor-owned utility's distribution facilities. For inverter-based systems, the GPR shall be calculated by multiplying the total installed DC nameplate generating capacity by .85 in order to account for losses during the conversion from DC to AC. It is the Customer's responsibility to notify the Company of any change to the GPR of the RGS by submitting a new application for interconnection specifying the modifications at least 30 days prior to making the modifications. Decrease in GPR below the 100 kW limit would necessitate entering into a new agreement at either Tier 1 or Tier 2 which may impose or remove requirements on the Customer. In any case, increases in GPR above 2 MW would necessitate an entirely new interconnection process not covered under the Tier 1, Tier 2 or Tier 3 agreements.
- 8. The RGS must have a GPR that does not exceed 90% of the Customer's utility distribution service rating at the Customer's location. If the GPR does exceed that 90% limit, the Customer shall be responsible to pay the cost of upgrades for that distribution service to accommodate the GPR capacity and ensure the 90% threshold is not breached.
- 9. The Customer shall maintain general liability insurance for personal injury and property damage in the amount of not less than two million dollars (\$2,000,000). The Customer shall provide initial proof of insurance, or sufficient guarantee and proof of self-insurance, evidencing the Customer's insurance as a covered addition to the Customer's insured property. The Customer shall submit similar proof of continuing insurance coverage within 30 days of any policy renewal.
- 10. Subject to an approved inspection, including installation of acceptable disconnect switch, this Agreement shall be executed by the Company within 30 calendar days of receipt of a completed application if there is no need for an interconnection study. The Customer shall pay to the Company a **\$500** one-time, nonrefundable fee for processing this Agreement.



- 11. If the Company determines that an interconnection study is necessary to ensure the safe and reliable interconnection of the Customer's RGS and the Company's system, a fee may be imposed for such study based on the Company's actual costs. Should such a study be needed, the Customer shall pay a deposit of the lesser of 50 percent of good faith estimated interconnection study costs or earnest money of \$1,000. The final study fee will be based on actual study costs which will be invoiced to the Customer after the study is completed and delivered, less the deposit and without interest, and will include a summary of professional time. If the deposit exceeds the invoiced fees, the Company shall refund any excess within 30 calendar days of the invoice without interest. This Agreement shall be entered into within 90 days assuming data required to perform the study is promptly provided by the Customer. If, as a result of any interconnection study that is performed associated with the RGS, it is determined that the Company's system or associated equipment must be expanded or costs must be incurred to accommodate the safe and reliable operation of the RGS on an interconnected basis with the Company, the Customer may be liable for charges to make such expansion or recoup such costs. Any such charges shall not be assessed on the Customer without prior approval of the Florida Public Service Commission as per Rule 25-6.065(4)(h). The Agreement shall not be entered into until the expansion or other work identified in the study has been completed and payment arranged.
- 12. The Customer is responsible for the protection of its generation equipment, inverters, protection devices, and other system components from damage from the normal and abnormal operations that occur on the Company's utility system in delivering and restoring system power. The Customer is also responsible for ensuring that the RGS equipment is inspected, maintained, and tested regularly in accordance with the manufacturer's instructions to ensure that it is operating correctly and safely. Such inspection should occur after large storms have traversed the Customer's location and after connection with the Company's system has been restored.
- 13. The Customer shall install, at the Customer's expense, a manual disconnect switch of the visible load break type (or a type mutually agreed on by the Customer and the Company) to provide a separation point between the AC power output of the RGS and any Customer wiring connected to the Company's utility system such that back feed from the RGS to the Company's utility system can not occur when the switch is in the open position. The manual disconnect switch shall be mounted separate from the meter socket on an exterior surface adjacent to the meter. The switch shall be readily accessible to the Company and capable of being locked in the open position with a Company padlock.



- 14. The Company may open the switch, isolating the RGS, without prior notice to the Customer. To the extent practical, however, prior notice shall be given. If prior notice is not given, the utility shall at the time of disconnection leave a door hanger notifying the Customer that the RGS has been disconnected, including an explanation of the condition necessitating such action. The switch will be re-closed by the Company as soon as practical once the conditions causing the disconnection cease to exist. Typical conditions which may require the switch to be opened include, but are not limited to:
 - Company utility system emergencies or maintenance requirements.
 - Hazardous conditions existing on the Company's utility system due to the operation of the Customer's RGS generation or protective equipment as determined by the Company.
 - Adverse electrical effects (such as power quality problems) on the electrical equipment of the company's other electric consumers caused by the RGS as determined by the Company.
 - Failure of the Customer to maintain the required insurance for the duration of this Agreement.
- 15. The Customer agrees to indemnify and hold harmless the Company, its subsidiaries or affiliates, and their respective employees, officers and directors, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Company, its subsidiaries, affiliates, and their respective employees, officers and directors may hereafter incur, suffer or be required to pay by reason of negligence on the part of the Customer under the obligation of this Agreement. The Company agrees to indemnify and hold harmless the Customer, against any and all liability, loss, damage, cost or expense, including attorney's fees, which the Customer may hereafter incur, suffer or be required to pay by reason of negligence on the part of the Company under the obligations of this Agreement.
- 16. In no event shall any statement, representation, or lack thereof, either express or implied, by the Company, relieve the Customer of exclusive responsibility for the Customer's RGS. Specifically, any Company inspection of the RGS shall not be construed as confirming or endorsing the RGS design or its operating or maintenance procedures nor as a warranty or guarantee as to the safety, reliability, or durability of the RGS equipment. The Company's inspection, acceptance, or its failure to inspect shall not be deemed an endorsement of any RGS equipment or procedure.



- 17. The Company will furnish, install, own and maintain metering equipment to measure kilowatt-hours (kWh) of energy and, if applicable, the kilowatts of demand and time of use of said energy and demand. The Customer's service associated with the RGS will be metered at a single metering point and the metering equipment will measure energy delivered by the Company to the Customer, and also measure energy delivered by the Customer to the Company. The Customer agrees to provide safe and reasonable access to the premises for installation of this equipment and its future maintenance or removal.
- 18. The Customer agrees to permit the Company, if it should so choose, to inspect the RGS and its component equipment and the documents necessary to ensure compliance with various sections of this Agreement both before and after the Customer RGS goes into service and to witness the initial testing of the Customer's RGS equipment and protective apparatus. The Company shall provide the Customer with as much notice as reasonably practicable; either in writing, e-mail, facsimile or by phone, as to when the Company may conduct inspection or document review. Upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, Customer agrees to provide the Company access to the Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed by the Agreement or, if necessary, to meet the Company's legal obligation to provide service to its customers. The Customer shall notify the Company at least 10 days prior to the inservice date of the RGS to provide sufficient notice for the Company to be able to be present, if it so chooses, when the RGS is placed in service.
- 19. Once the Company has received the Customer's written documentation that the requirements of this Agreement have been met and the correct operation of the manual switch has been demonstrated to a Company representative, the Company will, within 10 business days, send written notice that parallel operation of the RGS may commence.
- 20. The Customer shall not have the right to assign its benefits or obligations under this Agreement without the Company's prior written consent and such consent shall not be unreasonably withheld. The Company may require the assignee to sign a new copy of this Agreement, agreeing to all its requirements and paying the applicable processing charge.



- 21. In executing this Agreement, the Company does not, nor should it be construed to extend its credit or financial support for the benefit or any third parties lending money to or having other transactions with Customer or any assignee of this Agreement.
- 22. On termination of services pursuant to this Agreement, the Company shall open and padlock the manual disconnect switch and remove any additional metering equipment related to this Agreement. At the Customer's expense, within 10 working days following the termination, the Customer shall permanently isolate the RGS and any associated equipment from the Company's electric supply system, notify the Company that the isolation is complete, and coordinate with the Company for return of the Company's lock.
- 23. This Agreement supersedes all previous agreements and representations either written or verbal heretofore made between the Company and Customer with respect to matters herein contained. This Agreement, when duly executed, constitutes the only Agreement between parties hereto relative to the matters herein described.
- 24. This Agreement 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 it may be modified, changed, or amended from time to time.
- 25. This Agreement incorporates by reference the terms of the tariff filed with the Florida Public Service Commission by Tampa Electric Company, including Rate Schedule NM-1, and associated technical terms and abbreviations, general rules and regulations and standard electric service requirements (as may be applicable) are incorporated by reference, as amended from time to time. To the extent of any conflict between this Agreement and such tariff, the tariff shall control.
- 26. The Company and Customer recognize that the Florida Public Service Commission Rules, including those Rules directly addressing the subject of this Agreement, may be amended from time to time. In the event that such rules are amended that affect the terms and conditions of this Agreement, the Company and Customer agree to supersede and replace this Agreement with a new Interconnection Agreement which complies with the amended rules.
- 27. This Agreement shall inure to the benefit of and be binding upon the respective heirs, legal representatives, successors and assigns of the parties hereto. If this Agreement is assigned, the Customer shall notify the Company prior to the effective date of the assignment.



28. Company or Customer may seek resolution of disputes arising out of the interpretation of this Agreement pursuant to Rule 25-22.032, F.A.C. Customer Complaints, or Rule 25-22.036, F.A.C., Initiation of Formal Proceedings.

IN WITNESS WHEREOF, Customer and the Company have executed this Agreement the day and year first above written.

CUSTOMER	
By:	
Its:	
COMPANY	
By:	•
Its:	
	By: Its: COMPANY By:



Exhibit "B"

	Applicatio	n Fee for In	terco	nnection f	or Renewa	ble En	ergy		
		(1)		(2)			(3)	(4)	
Line			W	eighted			Total	Loading Factor for non-productive	72.0%
No.		Hours	Co	sts, \$/Hr		\$	\$/Unit	time, direct benefits, other payroll costs and A&G.	
1	Customer Service (Administrative) Labor Expenses	0.5	\$	20.89		\$	10.45		
2									
3	Service Coordination	1.0	\$	37.50		\$	37.50		
4								(5)	
5	Engineer Inspection and Travel Time	2.0	\$	40.57		\$	81.14	Loading factor for supervisory and	43%
6								administrative overhead	
7	Payroll and A&G loading factor		7	2.00%		\$	92.94		
8									
9	Administrative and Overhead loading factor			43%			55.51		
10	5								
11	Subtotal of Field Labor and Loadings $(1) + (3) + (5) + (7) + (9)$					\$	277.53		
12						<u> </u>			
13	Vehicles (Transportation) Costs	25 miles	s	0.51		\$	12.75		
14		_000	*	0.07		¥	12.10		
15	Total Cost of Providing Service (11) + (13)				>	\$	290.28	=	

Tier 2

Description of Service:

One Source Customer Engineering Representative (CER) receives a verbal request from customer, collects and enters customer information into * Energy Delivery's labor loading factor WorkPro and creates a Work order. CER assigns work order to appropriate Service Coordinator. A Technical Clerk prints form and mails to customer or advises customer on how to obtain information on the web site. Service Coordinator reviews Interconnect Application and contacts the customer. The application is assigned to an engineer for inspection. The engineer would drive to the site and inspect the equipment to ensure that it meets all IEEE standards and all TEC electrical and safety requirements for interconnection. The field order in the Work Management System is closed.

NOTES:

used in calculating the costs for Job Orders, CIAC, Chargeable, Work and Property Damage. Includes a labor loading factor of 48.9% for nonproductive time, benefits, other taxes.

Exhibit "C"

			٦	Fier 3					
	Applicatio	on Fee for In	terco	nnection f	or Renewa	ble Er	nergy		
Line No.		(1) Hours		(2) eighted sts, \$/Hr			(3) Total \$/Unit	 (4) * Loading Factor for non-productive time, direct benefits, other payroll 	72.0%
1 2	Customer Service (Administrative) Labor Expenses	0.5	\$	20.89		\$	10.45	costs and A&G.	
2 3 4	Service Coordinatior	2.0	\$	37.50		\$	75.00	(5)	
5 6	Engineer Inspection and Travel Time	4.0	\$	40.57		\$	162.28	Loading factor for supervisory and administrative overhead	43%
7 8	Payroll and A&G loading factor		7	2.00%		\$	178.36		
9 10	Administrative and Overhead loading factor			43%		\$	106.52		
11 12	Subtotal of Field Labor and Loadings (1) + (3) +(5) + (7) + (9)					\$	532.61		
13 14	Vehicles (Transportation) Costs	25 miles	\$	0.51		\$	12.75		
15	Total Cost of Providing Service (11) + (13)				>	\$	545.36		

Description of Service:

One Source Customer Engineering Representative (CER) receives a verbal request from customer, collects and enters customer information into * Energy Delivery's labor loading factor WorkPro and creates a Work order. CER assigns work order to appropriate Service Coordinator. A Technical Clerk prints form and mails to customer or advises customer on how to obtain information on the web site. Service Coordinator reviews Interconnect Application and contacts the customer. The application is assigned to an engineer for inspection. The engineer would drive to the site and inspect the equipment to ensure that it meets all IEEE standards and all TEC electrical and safety requirements for interconnection. The field order in the Work Management System is closed.

NOTES:

used in calculating the costs for Job Orders, CIAC, Chargeable, Work and Property Damage. Includes a labor loading factor of 48.9% for nonproductive time, benefits, other taxes.

Exhibit "D"



TWELFTH REVISED SHEET NO. 3.010 CANCELS ELEVENTH REVISED SHEET NO. 3.010

INDEX MISCELLANEOUS SECTION

<u>Schedule</u>	Title	<u>Sheet No.</u>
	Levelized Payment Plan (Optional)	3.020
	Summary Billing Plan (Optional)	3.025
	Service Charges	3.030
	Home Energy Analysis	3.040
	Commercial and Industrial Energy Analysis	3.050
RSL-3	Load Management (Optional)	3.110
GSLM-1	General Service Load Management Rider	3.150
GSSG-1	Standby Generator Rider	3.200
GSLM-2	General Service Industrial Load Management Rider	3.210
GSLM-3	General Service Industrial Standby And Supplemental Load Management Rider	3.230
BERS	Building Energy-Efficient Rating System	3.250
NM-1	Net Metering Service	3.255



NET METERING SERVICE

SCHEDULE: NM-1

AVAILABLE: Entire Service Area.

APPLICABLE: This schedule is applicable to a customer who:

- 1. Takes retail electric service from Tampa Electric under an otherwise applicable rate schedule (OAS) at their premises;
- Uses a renewable electrical generating facility ("Eligible Customer Generator") with a capacity of not more than 2,000 kilowatts that is located on the customer's owned, leased, or rented premises and that is intended primarily to offset part or all of the customer's own electrical requirements;
- 3. Is interconnected and operates in parallel with Tampa Electric's transmission or distribution systems; and
- Provides Tampa Electric with a completed signed Standard Interconnection Agreement (SIA) for Tier 1, Tier 2 or Tier 3 Renewable Generator Systems.

A customer who owns, rents or leases a premises that includes an Eligible Customer Generator, that was previously approved by Tampa Electric for interconnection prior to the customer moving in and/or taking electric service with Tampa Electric (Change of Party Customer), will take service on this tariff as long as the requirements of this section are met. To be eligible, the Change of Party Customer must have a completed signed SIA.

At the NM-1 customer's sole discretion, service may be taken under one of Tampa Electric's standby rate schedules SBF, SBFT or GSLM-3, if it is not already their OAS. Customers taking service under IS-1 or IS-3 schedules who take NM-1 service may, at their sole discretion, choose to take service under one of Tampa Electric's standby rate schedules SBI-1 or SBI-3, as applicable, if it is not already their OAS.

MONTHLY RATE: All rates charged under this schedule will be in accordance with the Eligible Customer Generator's OAS. A Customer served under this schedule is responsible for all charges from its OAS including monthly minimum charges, customer charges, meter charges, facilities charges, demand charges and surcharges. Charges for energy (kWh) supplied by Tampa Electric will be based on the net metered usage in accordance with Billing (see below).



METERING: Energy metering under NM-1 shall be accomplished, when possible, using a single meter capable of registering the flow of electricity in two directions. Such metering shall be installed at the point of delivery at the expense of Tampa Electric and no additional charge for metering and billing shall be assessed.

An additional meter or meters, installed in a multiple meter socket, to monitor the flow of electricity in each direction, may be installed at the expense of Tampa Electric and any such additional metering shall be used only to provide the information necessary to accurately bill or credit the customer according to that customer's OAS or to collect information for research or special billing purposes. Tampa Electric shall determine whether such additional metering is required under this provision. If such metering is installed the energy billing calculation (see Billing below) shall yield a result identical to that of a single meter capable of measuring the flow of electricity in two directions. Tampa Electric shall not require dual metering except where necessary.

Any additional meter or meters installed as necessary to measure total renewable electricity generated by the Customer for the purposes of receiving Renewable Energy Certificates (or similarly titled credits for renewable energy electricity generated) shall be installed at the expense of the customer, unless determined otherwise during negotiations for the sale of the customer's credits to Tampa Electric.

Meter readings shall be taken monthly on the same cycle as required under the OAS.

<u>BILLING</u>: Any net monthly consumption or export of energy (kWh) measured by the metering shall be valued as follows:

a. For an OAS with Non-Time of Use Standard Rates:

Any net consumption or production of kWh shall be valued monthly as follows:

- 1. If the customer is a net consumer of kWh during the month, the customer shall be billed for kWh in accordance with the OAS.
- 2. If the customer is a net exporter of kWh during the month (except for the last monthly billing period of the calendar year), the net kWh exported shall be credited to the customer's kWh consumption for the next month's billing cycle.
- 3. If the customer is a net exporter of kWh during the last monthly billing period of the calendar year, the net kWh exported shall be paid on a subsequent bill to the customer at Tampa Electric's annual average COG-1 kWh rate for the prior year.
- 4. If the customer leaves the system, the customer's unused kWh credits shall be paid to the customer on the final bill at Tampa Electric's annual average COG-1 kWh rate.



b. For an OAS with Time of Use Standard Rates:

- If the customer is a net consumer of kWh during any discrete TOU period, the net kWh consumed shall be billed in accordance with that same TOU period in the customer's OAS.
- If the customer is a net exporter of kWh during any discrete TOU period, the net kWh produced shall be credited to the customer's energy consumption for the next month's billing cycle in the same TOU period in the customer's OAS.
- 3. If the customer is a net exporter of kWh during the last monthly billing period of the calendar year, the net kWh exported shall be paid on a subsequent bill to the customer at Tampa Electric's annual average COG-1 rate.
- 4. If the customer leaves the system, the customer's unused kWh credits shall be paid to the customer on the final bill at Tampa Electric's annual average COG-1 rate for the prior year.
- c. For an OAS with Standby Rates:
 - KWh billing and crediting shall be performed under the same procedures described in subsections a and b above, depending on the Non-Time of Use or Time of Use parameters utilized in the standby OAS, however all kWh credited from prior periods shall be considered supplemental kWh for billing purposes.
- d. Credited kWh may not be utilized for any other rate OAS the customer takes service under from Tampa Electric at locations other than the location where the renewable electric generating system is located and credited kWh may not be utilized for lighting service or to replace optional provision energy purchases under interruptible service schedules under any circumstances.

SPECIAL PROVISIONS:

- The customer and Tampa Electric may seek resolution of disputes arising out of the operation of this tariff, or interpretations of Rule 25-6.065, F.A.C. pursuant to Rule 25-22.032, F.A.C., Customer Complaints or Rule 25-22.036, F.A.C., Initiation of Formal Proceedings.
- As required under Rule 25-6.065 F.A.C., Tampa Electric shall be reporting to the Florida Public Service Commission certain statistics regarding renewable generating systems located on customer premises on an accumulated basis, as well as certain information regarding each individual system, including the system covered under this rate schedule.

ISSUED BY: C. R. Black, President



<u>TWELFTH</u> ELEVENTH REVISED SHEET NO. 3.010 CANCELS ELEVENTH TENTH REVISED SHEET NO. 3.010

INDEX MISCELLANEOUS SECTION

<u>Schedule</u>	Title	<u>Sheet No.</u>
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GSLM-3	General Service Industrial Standby And Supplemental Load Management Rider	3.230
BERS	Building Energy-Efficient Rating System	3.250
<u>NM-1</u>	Net Metering Service	<u>3.255</u>

ISSUED BY: <u>C. R. Black</u>J. B. Ramil, President DATE EFFECTIVE: June 15, 2000



NET METERING SERVICE

SCHEDULE: NM-1

AVAILABLE: Entire Service Area.

APPLICABLE: This schedule is applicable to a customer who:

- <u>1. Takes retail electric service from Tampa Electric under an otherwise applicable rate</u> schedule (OAS) at their premises;
- 2. Uses a renewable electrical generating facility ("Eligible Customer Generator") with a capacity of not more than 2,000 kilowatts that is located on the customer's owned, leased, or rented premises and that is intended primarily to offset part or all of the customer's own electrical requirements;
- 3. Is interconnected and operates in parallel with Tampa Electric's transmission or distribution systems; and
- 4. Provides Tampa Electric with a completed signed Standard Interconnection Agreement (SIA) for Tier 1, Tier 2 or Tier 3 Renewable Generator Systems.

A customer who owns, rents or leases a premises that includes an Eligible Customer Generator, that was previously approved by Tampa Electric for interconnection prior to the customer moving in and/or taking electric service with Tampa Electric (Change of Party Customer), will take service on this tariff as long as the requirements of this section are met. To be eligible, the Change of Party Customer must have a completed signed SIA.

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MONTHLY RATE: All rates charged under this schedule will be in accordance with the Eligible Customer Generator's OAS. A Customer served under this schedule is responsible for all charges from its OAS including monthly minimum charges, customer charges, meter charges, facilities charges, demand charges and surcharges. Charges for energy (kWh) supplied by Tampa Electric will be based on the net metered usage in accordance with Billing (see below).





METERING: Energy metering under NM-1 shall be accomplished, when possible, using a single meter capable of registering the flow of electricity in two directions. Such metering shall be installed at the point of delivery at the expense of Tampa Electric and no additional charge for metering and billing shall be assessed.

An additional meter or meters, installed in a multiple meter socket, to monitor the flow of electricity in each direction, may be installed at the expense of Tampa Electric and any such additional metering shall be used only to provide the information necessary to accurately bill or credit the customer according to that customer's OAS or to collect information for research or special billing purposes. Tampa Electric shall determine whether such additional metering is required under this provision. If such metering is installed the energy billing calculation (see Billing below) shall yield a result identical to that of a single meter capable of measuring the flow of electricity in two directions. Tampa Electric shall not require dual metering except where necessary.

Any additional meter or meters installed as necessary to measure total renewable electricity generated by the Customer for the purposes of receiving Renewable Energy Certificates (or similarly titled credits for renewable energy electricity generated) shall be installed at the expense of the customer, unless determined otherwise during negotiations for the sale of the customer's credits to Tampa Electric.

Meter readings shall be taken monthly on the same cycle as required under the OAS.

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a. For an OAS with Non-Time of Use Standard Rates:

Any net consumption or production of kWh shall be valued monthly as follows:

- 1. If the customer is a net consumer of kWh during the month, the customer shall be billed for kWh in accordance with the OAS.
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- 3. If the customer is a net exporter of kWh during the last monthly billing period of the calendar year, the net kWh exported shall be paid on a subsequent bill to the customer at Tampa Electric's annual average COG-1 kWh rate for the prior year.
- 4. If the customer leaves the system, the customer's unused kWh credits shall be paid to the customer on the final bill at Tampa Electric's annual average COG-1 kWh rate.

ISSUED BY: C. R. Black, President



- b. For an OAS with Time of Use Standard Rates:
 - 1. If the customer is a net consumer of kWh during any discrete TOU period, the net kWh consumed shall be billed in accordance with that same TOU period in the customer's OAS.
 - 2. If the customer is a net exporter of kWh during any discrete TOU period, the net kWh produced shall be credited to the customer's energy consumption for the next month's billing cycle in the same TOU period in the customer's OAS.
 - 3. If the customer is a net exporter of kWh during the last monthly billing period of the calendar year, the net kWh exported shall be paid on a subsequent bill to the customer at Tampa Electric's annual average COG-1 rate.
 - 4. If the customer leaves the system, the customer's unused kWh credits shall be paid to the customer on the final bill at Tampa Electric's annual average COG-1 rate for the prior year.
- c. For an OAS with Standby Rates:
 - 1. KWh billing and crediting shall be performed under the same procedures described in subsections a and b above, depending on the Non-Time of Use or Time of Use parameters utilized in the standby OAS, however all kWh credited from prior periods shall be considered supplemental kWh for billing purposes.
- d. Credited kWh may not be utilized for any other rate OAS the customer takes service under from Tampa Electric at locations other than the location where the renewable electric generating system is located and credited kWh may not be utilized for lighting service or to replace optional provision energy purchases under interruptible service schedules under any circumstances.

SPECIAL PROVISIONS:

- 1. The customer and Tampa Electric may seek resolution of disputes arising out of the operation of this tariff, or interpretations of Rule 25-6.065, F.A.C. pursuant to Rule 25-22.032, F.A.C., Customer Complaints or Rule 25-22.036, F.A.C., Initiation of Formal Proceedings.
- 2. As required under Rule 25-6.065 F.A.C., Tampa Electric shall be reporting to the Florida Public Service Commission certain statistics regarding renewable generating systems located on customer premises on an accumulated basis, as well as certain information regarding each individual system, including the system covered under this rate schedule.

ISSUED BY: C. R. Black, President