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# AUSLEY & McMULLEN

ATTORNEYS AND COUNSELORS AT LAW

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TALLAHASSEE, FLORIDA 32301  
(850) 224-9115 FAX (850) 222-7560

June 22, 2000

HAND DELIVERED

ORIGINAL

RECORDS AND  
REPORTING

JUN 22 PM 4:14

RECEIVED FPSC

000758- EI

Ms. Blanca S. Bayo, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

Re: Petition for Approval of a Pilot Program for Small Photovoltaic Systems by  
Tampa Electric Company

Dear Ms. Bayo:

Enclosed for filing in the above-styled matter are the original and fifteen (15) copies of Tampa Electric Company's Petition for Approval for a Pilot Program for Interconnection of Small Photovoltaic Systems.

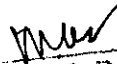
Please acknowledge receipt and filing of the above by stamping the duplicate copy of this letter and returning same to this writer.

Thank you for your assistance in connection with this matter.

Sincerely,

  
James D. Beasley

JDB/pp  
Enclosures

RECEIVED & FILED  
  
FPSC-BUREAU OF RECORDS

DOCUMENT NUMBER-DATE

07615 JUN 22 8

FPSC-RECORDS/REPORTING

ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for Approval )  
of a Pilot Program for Small )  
Photovoltaic Systems by )  
Tampa Electric Company. )  
\_\_\_\_\_ )

DOCKET NO. 000758-ET  
FILED: June 22, 2000

**TAMPA ELECTRIC COMPANY'S PETITION FOR APPROVAL FOR A PILOT PROGRAM FOR INTERCONNECTION OF SMALL PHOTOVOLTAIC SYSTEMS**

Tampa Electric ("Tampa Electric" or "the company"), pursuant to Sections 366.051 and 366.06, Florida Statutes, and Rules 28-106.201, 25-9.033 and 25-17.087, Florida Administrative Code, files this its Petition for Pilot Approval of a Small Photovoltaic System ("SPS") Interconnect Agreement ("Agreement"), and in support thereof states:

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. The company's principal offices are located at 702 North Franklin Street, Tampa, Florida 33602.

2. All notices, pleading, and correspondence required to be served on the petitioner should be directed to:

Mr. Lee L. Willis  
Mr. James D. Beasley  
Ausley & McMullen  
227 S. Calhoun Street (32301)  
Post Office Box 391  
Tallahassee, Florida 32302  
(850) 224-9115  
(850) 222-7952 (fax)

Ms. Angela Llewellyn  
Administrator,  
Regulatory Coordination  
Tampa Electric Company  
Post Office Box 111  
Tampa, Florida 33601  
(813) 228-1752  
(813) 228-1770 (fax)

3. In this petition, Tampa Electric seeks approval of a pilot Small Photovoltaic System Interconnect Agreement. The Agreement sets forth interconnection and operational requirements that must be met prior to providing service under which customer-owned, SPS generating equipment may be operated in parallel with the company's system. A copy of the Agreement as well as a new table of contents sheet are provided in Exhibit A in standard format and in Exhibit B in legislative format.

4. The customer-owned SPS generating equipment permitted for interconnection under this agreement must:

- A. Conform to the requirements of the latest effective version (including subsequently adopted revisions) published by Underwriters Laboratories(UL) of *UL 1741, Standard for Static Inverters and Charge Controllers for Use in Photovoltaic Power Systems;*
- B. Be installed in compliance with the latest approved version (including subsequent versions) published by the Institute of Electrical and Electronics Engineers (IEEE) of *IEEE Standard 929, IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems;* and
- C. Be installed in compliance with the latest version

of the *National Electric Code (NEC)* as periodically issued by the National Fire Protection Association (NFPA) and adopted by the authority having jurisdiction over that installation; and

D. Not to exceed 10kW total output.

5. The company is requesting that the Agreement be approved as a pilot for a period of three years. The purpose of the pilot program would be to gather information about the operation of the company's system in parallel with SPS systems, gain experience with these system interconnections under the pilot terms and conditions of interconnection contained herein, and to determine the acceptance of this agreement by SPS system customers. Data for reliability and output under actual operating conditions as well as the availability and cost of insurance will be obtained over the pilot program period.

6. The Agreement specifies the right of the company to inspect the SPS and to require additional safety features such as an external disconnect switch accessible to the company's personnel.

7. The Agreement includes a \$100,000 customer insurance requirement. For the few systems that are expected to be interconnected during the three year pilot period, the risk to the company appears acceptable with this level of insurance. The

**TAMPA ELECTRIC COMPANY  
EXHIBIT A  
STANDARD FORMAT  
SMALL PHOTOVOLTAIC SYSTEM INTERCONNECT  
AGREEMENT**

Agreement requires that the customer hold harmless and indemnify the company from any loss due to the improper operation of the customer's SPS in parallel with the company's system.

8. An SPS of 10kW or less that complies with *IEEE 929* and *UL 1741* is limited in size and its performance is specifically defined with regard to power quality and system protection. Acceptance of such small systems by the company on the basis of type testing and certification is not meant to imply that the company will interconnect with larger systems without specifying more extensive requirements as to interconnection and operation (e.g. site specific engineering and protective studies, more stringent insurance and communication requirements, etc.).

9. Customers will benefit from the Agreement to the extent that the company learns during the pilot program period the risks and technical requirements of such installations. The SPS provides energy to customers, who take advantage of the technology, which would otherwise be purchased from the company.

10. Tampa Electric is not aware of any disputed issues of material fact relative to the matters proposed herein.

11. The ultimate facts alleged are that approval of the SPS Agreement as a three year pilot as proposed herein will enable Tampa Electric to gain valuable information regarding customer acceptance of the SPS contract concept as well as the risks and

technical requirements of SPS installations.

**WHEREFORE**, Tampa Electric requests that this Commission consent to this pilot Agreement set forth in Exhibit A and that such approval be made effective at the expiration of the appropriate notice period pertaining to tariff modifications.

DATED this 22<sup>nd</sup> day of June 2000.

Respectfully submitted,



---

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

ATTORNEYS FOR TAMPA ELECTRIC COMPANY

SHEET NO.

Interconnection for a Small Photovoltaic System

8.900

Tariff Agreement to Provide Interconnection for a Small  
Photovoltaic System

ISSUED BY: J. B. Ramil, President

DATE EFFECTIVE:



**TARIFF AGREEMENT TO PROVIDE INTERCONNECTION  
FOR A SMALL PHOTOVOLTAIC SYSTEM**

This agreement is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between \_\_\_\_\_, (hereinafter called "Customer") and Tampa Electric Company (hereinafter called "Company"), a corporation organized under the laws of the State of Florida. The Customer and the Company shall collectively be called the "Parties."

**WITNESSETH:**

That for and in consideration of the mutual covenants and agreements expressed herein, the Company and the customer agree as follows:

1. A Small Photovoltaic System (SPS) is a solar electric generating system which contains solar photovoltaic panels, batteries (optional), a Static Power Converter (SPC)<sup>1</sup>, wiring, fuses, wiring devices, conduit, circuit breakers, transfer or disconnect switches, etc. for making the physical connections required to install the SPS and connect it to the normal wiring system. The total SPS rated capacity, which may request interconnection under this agreement, is not to exceed 10 kW at the point at which the electric utility and the customer interface occurs, typically the Customer side of the utility revenue meter. This point is referred to as the Point of Common Coupling (PCC).

2. The SPS installation must be in compliance with the latest approved version (including subsequently approved versions) published by the Institute of Electrical and Electronics Engineers (IEEE) of IEEE 929 Recommended Practices for Utility Interface of Photovoltaic (PV) Systems (IEEE 929) and the latest version of the National Electrical Code (NEC) as adopted by the authority having jurisdiction over the installation.

3. The SPC shall meet the requirements of the latest effective version (including subsequently adopted revisions) published by Underwriters Laboratory (UL) of UL1741, Standard for Static Inverters and Charge Controllers for Use in Photovoltaic Systems (UL1741).

<sup>1</sup> SPC-Equipment that converts DC power to AC power and provides control, protection, and filtering functions used to interface with an electric utility system.

**ISSUED BY: J. B. Ramil, President**

**DATE EFFECTIVE:**

4. Prior to operation of the SPS in parallel with the Company's system, the Company shall require the Customer to provide a certification letter from a licensed electrical contractor who has verified compliance with the standards and codes described in the previous sections. If the SPC is not Underwriters Laboratory listed as being in compliance with the latest effective version of UL1741, the Company shall require that the electrical contractor who installed the SPC provide a letter from the manufacturer certifying that the SPC conforms to the requirements of the latest effective version of UL1741. The Company agrees to provide written approval for parallel operation if the installation is in compliance with the requirements of the previous sections. Information regarding the installation, inspections by local authorities, insurance, and other communications between the parties regarding the operation of the SPS and the Company's acceptance of the interconnection requirements will be noted on the SPS Application, Information and Acceptance Form, attached as Appendix 1. The Company will provide its written approval using the same form within 10 business days following the submittal of proof of satisfactory insurance and the certification or provision of letters of compliance by all appropriate signatories of the various requirements and inspections listed on the form. The Company may inspect the installation site for system conformance to all requirements of this agreement before giving approval for parallel operation.

5. A manual, lockable load break switch of the visible disconnect type shall be installed by the Customer at the PCC which will electrically separate the Customer's electrical system from the Company's system. This switch shall be visible and accessible to the Company's workers.

6. The Company may disconnect the Customer's site from parallel operation with the Company's system if there exists hazardous conditions or power quality problems associated with the parallel operation of the Customer's SPS. If the Company detects such conditions it will notify the Customer as soon as practicable. The Customer may also be disconnected if required by Company system conditions or if the Company needs to perform maintenance on the electric supply circuits serving the Customer. If the Company decides to disconnect the Customer for any of these conditions, it will notify the Customer in advance if possible. The Company will reconnect the Customer as quickly as practicable consistent with safety after the disconnection.

7. Failure of the Customer to comply with all governmental rules, regulations, orders or decisions by any authority regarding operation of the SPS equipment will be reason for the Company to disconnect the Customer from parallel operation with the Company's system. Failure to maintain the equipment and installation to stay in compliance with the latest versions of UL1741 and IEEE 929 and the latest adopted version of the NEC will be reason for the Company to disconnect the Customer from parallel operation with the Company's system.

8. In addition to a meter which performs the normal billing meter function, the Company may install additional metering/equipment for the purpose of gathering information about the interconnection and its effect on the Company system.

**ISSUED BY:** J. B. Ramil, President

**DATE EFFECTIVE:**

Such equipment supplied by the Company shall be owned, operated, maintained, repaired and removed by the Company only. The Customer shall be similarly responsible for the items owned by Customer. The Customer shall be responsible for establishing and maintaining controlled access by third parties to the SPS. The Customer will not adjust, move or modify the Company's equipment. If the Customer does cause the Company's equipment to malfunction or the Customer's equipment does cause trouble on the Company's system, the Customer will be responsible for the cost of repairing the damage or compensating for such trouble.

9. Visits made to the Customer site due to problems within the Customer owned equipment will be charged to the Customer at the applicable tariff fee for a standard disconnect /reconnect. In order to help ensure the continuous, safe, reliable and compatible operation of the SPS with the Company's system, the Customer hereby grants to the Company the reasonable right of ingress and egress, consistent with the safe operation of the SPS, over property owned or controlled by the Customer to the extent the Company deems such ingress and egress necessary in order to install, examine, test, calibrate, coordinate, operate, maintain, repair or remove any of its equipment involved in the parallel operation of the SPS and the Company's system, including the Company's metering and/or monitoring equipment.

10. The Customer shall deliver to the Company, ten (10) business days before the date the Customer expects to begin parallel operation, a certificate of insurance certifying the Customer's coverage under a liability insurance policy issued by a reputable insurance company authorized to do business in the State of Florida naming the Customer as named insured. The policy shall include coverage for personal injury, death and property damage, in an amount not less than \$100,000 for each occurrence. The above required policy shall be endorsed with a provision whereby the insurance company will notify the Company thirty (30) days prior to the effective date of any cancellation or material change in said policy. The Customer shall pay all premiums and other charges due on said policy and keep said policy in force during the entire period of interconnection with the Company. The Company may require periodic proof of insurance. Failure to maintain such insurance will be cause for disconnection of the customer.

11. The electrical energy supplied by the SPS will decrease the Customer's consumption of energy which would otherwise be purchased from the Company. The billing meter/register provided under this agreement will only record energy flow from the Company's system into the Customer's premises. If the Customer wishes to be paid for any export power supplied by the SPS to the Company, the Customer may request service under the Company's COG-1 or COG-2 tariffs and all the rates, terms, and conditions therein shall apply.

12. In no event shall any statement, representation, or lack thereof, either express or implied, by the Company, relieve Customer of exclusive responsibility for the SPS. Specifically, any Company inspection of the SPS shall not be construed as confirming or endorsing the SPS's 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. The Customer agrees to hold harmless and indemnify the Company from all loss resulting from the operation of the SPS.

13. 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.

14. In executing this Agreement, the Company does not, nor should it be construed to extend its credit or financial support for the benefit of any third parties lending money to or having other transactions with Customer or any assignee of this Agreement.

15. 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 may be modified, changed or amended from time to time.

16. If any part of this Agreement, for any reason, be declared invalid or unenforceable by a court or public authority of appropriate jurisdiction, then the Parties shall attempt to negotiate to restore the balance of benefits. If either Party is not satisfied by the negotiation, either Party may cancel this Agreement with 5 days notice.

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

18. The Company's Tariff and associated technical terms and abbreviations, general rules and regulations and standard electric service requirements (as may be applicable) are incorporated herein by reference.

19. This Agreement, as it may be amended from time to time, shall be binding and inure to the benefit of the Parties' respective successors-in-interest and legal representatives.

ISSUED BY: J. B. Ramil, President

DATE EFFECTIVE:

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: \_\_\_\_\_

ISSUED BY: J. B. Ramil, President

DATE EFFECTIVE:

**APPENDIX 1**

**ISSUED BY: J. B. Ramil, President**

**DATE EFFECTIVE:**

Account # \_\_\_\_\_ Load Survey# \_\_\_\_\_

**SPS Application, Information and Acceptance Form Page 1 of 3**

A. Applicant Information (To be submitted by the Owner/Customer/User at the site of the SPS)

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Location of SPS (If different than above): \_\_\_\_\_

Daytime Phone (s): \_\_\_\_\_

Fax: \_\_\_\_\_ Email: \_\_\_\_\_

B. Installation Contractor Information (To be provided by installation contractor)

Installation Contractor: \_\_\_\_\_

License #: \_\_\_\_\_ Jurisdiction: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Daytime Phone(s): \_\_\_\_\_

Proposed Installation Start/Completion Dates: \_\_\_\_\_

Permit # \_\_\_\_\_ Permit County \_\_\_\_\_ Permit Date \_\_\_\_\_

C. Photovoltaic System Information (To be provided by installation contractor.)

System Name/Model: \_\_\_\_\_

PV Array dc Power at STC: \_\_\_\_\_ watts

Inverter/SPC Name /Model: \_\_\_\_\_

Batteries Type: \_\_\_\_\_ Capacity: \_\_\_\_\_ A-Hrs

Array Location: \_\_\_\_\_

Inverter/SPC Location: \_\_\_\_\_

Disconnect Switch Location: \_\_\_\_\_

ISSUED BY: J. B. Ramil, President

DATE EFFECTIVE:

Account # \_\_\_\_\_ Load Survey# \_\_\_\_\_

**SPS Application, Information and Acceptance Form Page 2 of 3**

D. Hardware Installation Compliance/ Certification (initialed and signed by installation contractor)

See Agreement Sections 2, 3, & 4 for answering this section.

1. The SPC bears a label stating that it is in compliance with the latest effective version of Underwriters Laboratories (UL) 1741, Standard for Static Inverters and Charge Controllers for Use in Photovoltaic Systems.

Complies with UL1741 version \_\_\_\_\_ Initial \_\_\_\_\_

2. If SPC is not UL listed as complying with the latest version of UL1741, letter from SPC manufacturer is attached which confirms SPC compliance with requirements of UL1741. Original letter attached. Initial \_\_\_\_\_

3. The system is installed in compliance with the latest approved version of IEEE Standard 929, Recommended Practice for Utility Interface of Photovoltaic Systems and the latest adopted edition of the National Electric Code(NEC).

Complies with IEEE 929 version \_\_\_\_\_ Initial \_\_\_\_\_

Signed (Contractor): \_\_\_\_\_ Date: \_\_\_\_\_

Name (Print): \_\_\_\_\_

E. Insurance Acceptance by TEC

Proof of adequate insurance meeting the form and amount of the specified requirements has been presented and accepted and a copy made for TEC files.

For Tampa Electric Company Risk Management Department,

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Name (Printed) \_\_\_\_\_

F. Owner/User Acknowledgment

The system has been installed to my satisfaction and I have been given system warranty information and an operation manual.

Signed (Owner/User): \_\_\_\_\_

Date: \_\_\_\_\_

G. Electrical Code Inspector

Satisfies Code Requirements Permit No. \_\_\_\_\_ Jurisdiction: \_\_\_\_\_

Inspector Name (Print): \_\_\_\_\_

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Inspector signature waived by Tampa Electric Company Representative upon inspection of completed electrical permit. Initial by TEC Rep. \_\_\_\_\_



Account # \_\_\_\_\_ Load Survey# \_\_\_\_\_

**SPS Application, Information and Acceptance Form Page 3 of 3**

H. Tampa Electric Acceptance for Interconnection / parallel operation

**Satisfies TEC Interconnection Requirements for SPS**

TEC Representative Name (Print): \_\_\_\_\_

TEC Representative Signature): \_\_\_\_\_

Date: \_\_\_\_\_ Original to file / Copy to Customer

Definitions:

STC - Standard Test Conditions specified by PV panel manufacturer or testing agency.  
(typically temperature and insolation)

Inverter - Converts DC power to AC power.

SPS - Small Photovoltaic System (See Agreement Section 1.)

A-Hrs - Amp-Hours (Unit of measure for battery capacity.)

SPC - Static Power Converter (See Agreement Section 1.)

**TAMPA ELECTRIC COMPANY  
EXHIBIT B  
LEGISLATIVE FORMAT  
SMALL PHOTOVOLTAIC SYSTEM INTERCONNECT  
AGREEMENT**

**SHEET NO.**

**Interconnection for a Small Photovoltaic System**

**8.900**

**Tariff Agreement to Provide Interconnection for a Small Photovoltaic System**

**ISSUED BY: J. B. Ramil, President**

**DATE EFFECTIVE:**

**TARIFF AGREEMENT TO PROVIDE INTERCONNECTION  
FOR A SMALL PHOTOVOLTAIC SYSTEM**

This agreement is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between \_\_\_\_\_, (hereinafter called "Customer") and Tampa Electric Company (hereinafter called "Company"), a corporation organized under the laws of the State of Florida. The Customer and the Company shall collectively be called the "Parties."

**WITNESSETH:**

That for and in consideration of the mutual covenants and agreements expressed herein, the Company and the customer agree as follows:

1. A Small Photovoltaic System (SPS) is a solar electric generating system which contains solar photovoltaic panels, batteries (optional), a Static Power Converter (SPC)<sup>1</sup>, wiring, fuses, wiring devices, conduit, circuit breakers, transfer or disconnect switches, etc. for making the physical connections required to install the SPS and connect it to the normal wiring system. The total SPS rated capacity, which may request interconnection under this agreement, is not to exceed 10 kW at the point at which the electric utility and the customer interface occurs, typically the Customer side of the utility revenue meter. This point is referred to as the Point of Common Coupling (PCC).

2. The SPS installation must be in compliance with the latest approved version (including subsequently approved versions) published by the Institute of Electrical and Electronics Engineers (IEEE) of IEEE 929 Recommended Practices for Utility Interface of Photovoltaic (PV) Systems (IEEE 929) and the latest version of the National Electrical Code (NEC) as adopted by the authority having jurisdiction over the installation.

3. The SPC shall meet the requirements of the latest effective version (including subsequently adopted revisions) published by Underwriters Laboratory (UL) of UL1741, Standard for Static Inverters and Charge Controllers for Use in Photovoltaic Systems (UL1741).

<sup>1</sup> SPC-Equipment that converts DC power to AC power and provides control, protection, and filtering functions used to interface with an electric utility system.

ISSUED BY: J. B. Ramil, President

DATE EFFECTIVE:

4. Prior to operation of the SPS in parallel with the Company's system, the Company shall require the Customer to provide a certification letter from a licensed electrical contractor who has verified compliance with the standards and codes described in the previous sections. If the SPC is not Underwriters Laboratory listed as being in compliance with the latest effective version of UL1741, the Company shall require that the electrical contractor who installed the SPC provide a letter from the manufacturer certifying that the SPC conforms to the requirements of the latest effective version of UL1741. The Company agrees to provide written approval for parallel operation if the installation is in compliance with the requirements of the previous sections. Information regarding the installation, inspections by local authorities, insurance, and other communications between the parties regarding the operation of the SPS and the Company's acceptance of the interconnection requirements will be noted on the SPS Application, Information and Acceptance Form, attached as Appendix 1. The Company will provide its written approval using the same form within 10 business days following the submittal of proof of satisfactory insurance and the certification or provision of letters of compliance by all appropriate signatories of the various requirements and inspections listed on the form. The Company may inspect the installation site for system conformance to all requirements of this agreement before giving approval for parallel operation.

5. A manual, lockable load break switch of the visible disconnect type shall be installed by the Customer at the PCC which will electrically separate the Customer's electrical system from the Company's system. This switch shall be visible and accessible to the Company's workers.

6. The Company may disconnect the Customer's site from parallel operation with the Company's system if there exists hazardous conditions or power quality problems associated with the parallel operation of the Customer's SPS. If the Company detects such conditions it will notify the Customer as soon as practicable. The Customer may also be disconnected if required by Company system conditions or if the Company needs to perform maintenance on the electric supply circuits serving the Customer. If the Company decides to disconnect the Customer for any of these conditions, it will notify the Customer in advance if possible. The Company will reconnect the Customer as quickly as practicable consistent with safety after the disconnection.

7. Failure of the Customer to comply with all governmental rules, regulations, orders or decisions by any authority regarding operation of the SPS equipment will be reason for the Company to disconnect the Customer from parallel operation with the Company's system. Failure to maintain the equipment and installation to stay in compliance with the latest versions of UL1741 and IEEE 929 and the latest adopted version of the NEC will be reason for the Company to disconnect the Customer from parallel operation with the Company's system.

8. In addition to a meter which performs the normal billing meter function, the Company may install additional metering/equipment for the purpose of gathering information about the interconnection and its effect on the Company system.

ISSUED BY: J. B. Ramil, President

DATE EFFECTIVE:

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10. The Customer shall deliver to the Company, ten (10) business days before the date the Customer expects to begin parallel operation, a certificate of insurance certifying the Customer's coverage under a liability insurance policy issued by a reputable insurance company authorized to do business in the State of Florida naming the Customer as named insured. The policy shall include coverage for personal injury, death and property damage, in an amount not less than \$100,000 for each occurrence. The above required policy shall be endorsed with a provision whereby the insurance company will notify the Company thirty (30) days prior to the effective date of any cancellation or material change in said policy. The Customer shall pay all premiums and other charges due on said policy and keep said policy in force during the entire period of interconnection with the Company. The Company may require periodic proof of insurance. Failure to maintain such insurance will be cause for disconnection of the customer.

11. The electrical energy supplied by the SPS will decrease the Customer's consumption of energy which would otherwise be purchased from the Company. The billing meter/register provided under this agreement will only record energy flow from the Company's system into the Customer's premises. If the Customer wishes to be paid for any export power supplied by the SPS to the Company, the Customer may request service under the Company's COG-1 or COG-2 tariffs and all the rates, terms, and conditions therein shall apply.

ISSUED BY: J. B. Ramil, President

DATE EFFECTIVE:

12. In no event shall any statement, representation, or lack thereof, either express or implied, by the Company, relieve Customer of exclusive responsibility for the SPS. Specifically, any Company inspection of the SPS shall not be construed as confirming or endorsing the SPS's 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. The Customer agrees to hold harmless and indemnify the Company from all loss resulting from the operation of the SPS.

13. 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.

14. In executing this Agreement, the Company does not, nor should it be construed to extend its credit or financial support for the benefit of any third parties lending money to or having other transactions with Customer or any assignee of this Agreement.

15. 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 may be modified, changed or amended from time to time.

16. If any part of this Agreement, for any reason, be declared invalid or unenforceable by a court or public authority of appropriate jurisdiction, then the Parties shall attempt to negotiate to restore the balance of benefits. If either Party is not satisfied by the negotiation, either Party may cancel this Agreement with 5 days notice.

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

18. The Company's Tariff and associated technical terms and abbreviations, general rules and regulations and standard electric service requirements (as may be applicable) are incorporated herein by reference.

19. This Agreement, as it may be amended from time to time, shall be binding and inure to the benefit of the Parties' respective successors-in-interest and legal representatives.

ISSUED BY: J. B. Ramil, President

DATE EFFECTIVE:



**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:** \_\_\_\_\_

**ISSUED BY: J. B. Ramil, President**

**DATE EFFECTIVE:**



**APPENDIX 1**

**ISSUED BY: J. B. Ramil, President**

**DATE EFFECTIVE:**

Account# \_\_\_\_\_ Load Survey# \_\_\_\_\_

**SPS Application, Information and Acceptance Form Page 1 of 3**

**A. Applicant Information (To be submitted by the Owner/Customer/User at the site of the SPS)**

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Location of SPS (If different than above): \_\_\_\_\_

Daytime Phone (s): \_\_\_\_\_

Fax: \_\_\_\_\_ Email: \_\_\_\_\_

**B. Installation Contractor Information (To be provided by installation contractor)**

Installation Contractor: \_\_\_\_\_

License #: \_\_\_\_\_ Jurisdiction: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Daytime Phone(s): \_\_\_\_\_

Proposed Installation Start/Completion Dates: \_\_\_\_\_

Permit # \_\_\_\_\_ Permit County \_\_\_\_\_ Permit Date \_\_\_\_\_

**C. Photovoltaic System Information (To be provided by installation contractor.)**

System Name/Model: \_\_\_\_\_

PV Array dc Power at STC: \_\_\_\_\_ watts

Inverter/SPC Name /Model: \_\_\_\_\_

Batteries Type: \_\_\_\_\_ Capacity: \_\_\_\_\_ A-Hrs

Array Location: \_\_\_\_\_

Inverter/SPC Location: \_\_\_\_\_

Disconnect Switch Location: \_\_\_\_\_

ISSUED BY: J. B. Ramil, President

DATE EFFECTIVE: \_\_\_\_\_

Account # \_\_\_\_\_ Load Survey# \_\_\_\_\_

**SPS Application, Information and Acceptance Form Page 2 of 3**

D. Hardware Installation Compliance/ Certification (initialed and signed by installation contractor)

See Agreement Sections 2, 3, & 4 for answering this section.

1. The SPC bears a label stating that it is in compliance with the latest effective version of Underwriters Laboratories (UL) 1741, Standard for Static Inverters and Charge Controllers for Use in Photovoltaic Systems:

Complies with UL1741 version \_\_\_\_\_ Initial \_\_\_\_\_

2. If SPC is not UL listed as complying with the latest version of UL1741, letter from SPC manufacturer is attached which confirms SPC compliance with requirements of UL1741. Original letter attached. Initial \_\_\_\_\_

3. The system is installed in compliance with the latest approved version of IEEE Standard 929, Recommended Practice for Utility Interface of Photovoltaic Systems and the latest adopted edition of the National Electric Code(NEC).

Complies with IEEE 929 version \_\_\_\_\_ Initial \_\_\_\_\_

Signed (Contractor): \_\_\_\_\_ Date: \_\_\_\_\_

Name (Print): \_\_\_\_\_

E. Insurance Acceptance by TEC

Proof of adequate insurance meeting the form and amount of the specified requirements has been presented and accepted and a copy made for TEC files.

For Tampa Electric Company Risk Management Department,

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Name (Printed) \_\_\_\_\_

F. Owner/User Acknowledgment

The system has been installed to my satisfaction and I have been given system warranty information and an operation manual.

Signed (Owner/User): \_\_\_\_\_

Date: \_\_\_\_\_

G. Electrical Code Inspector

Satisfies Code Requirements Permit No. \_\_\_\_\_ Jurisdiction: \_\_\_\_\_

Inspector Name (Print): \_\_\_\_\_

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Inspector signature waived by Tampa Electric Company Representative upon inspection of completed electrical permit. Initial by TEC Rep. \_\_\_\_\_

Account # \_\_\_\_\_ Load Survey# \_\_\_\_\_

**SPS Application Information and Acceptance Form Page 3 of 3**

H: Tampa Electric Acceptance for Interconnection / parallel operation

Satisfies TEC Interconnection Requirements for SPS

TEC Representative Name (Print): \_\_\_\_\_

TEC Representative Signature): \_\_\_\_\_

Date: \_\_\_\_\_ Original to file / Copy to Customer

**Definitions:**

STC - Standard Test Conditions specified by PV panel manufacturer or testing agency.  
(typically temperature and insolation)

Inverter - Converts DC power to AC power.

SPS - Small Photovoltaic System (See Agreement Section 1.)

A-Hrs - Amp-Hours (Unit of measure for battery capacity.)

SPC - Static Power Converter (See Agreement Section 1.)