

**FORT LOUDOUN ELECTRIC COOPERATIVE**  
**INTERCONNECTION AGREEMENT FOR SMALL SOLAR SYSTEMS**  
**For Systems Less Than 50 kW**

This INTERCONNECTION AGREEMENT FOR SMALL SOLAR SYSTEMS (LESS THAN 50 kW), (the "Agreement"), is entered into as of \_\_\_\_\_, 20\_\_\_\_, (the "Effective Date"), by and between

\_\_\_\_\_ hereinafter called "Member", and Fort Loudoun Electric Cooperative, hereinafter called "Cooperative". Member and Cooperative are hereinafter collectively referred to as the "Parties" or "Party". In consideration of the mutual covenants set forth herein, the Parties agree as follows:

**1. SCOPE OF AGREEMENT:**

This Agreement relates solely to the conditions under which Cooperative and Member agree that Member's Solar System and Equipment, hereinafter the "Solar System", and **located at (address)**

\_\_\_\_\_ may be interconnected to and operated in parallel with Cooperative's electric system. This Agreement does not authorize Member to export power or constitute an agreement to purchase or wheel Member's power. Other services that Member may require from Cooperative shall be covered under separate agreements. Cooperative will supply the electrical requirements of Member that are not supplied by Member's Solar System. Such electric service shall be supplied to Member under Cooperative's rates schedules, riders, and services regulations applicable to Member's class of service.

**2. INTERCONNECTION:**

Cooperative hereby authorizes Member to interconnect and commence operation under the terms of this Agreement subject to Member having received Cooperative's written acceptance. Member shall not interconnect Member's Solar System with Cooperative's electric system nor commence parallel operation of Member's Solar System until both Parties have accepted this Agreement and the requirements for interconnection have been met. Cooperative shall have the right and opportunity to have representatives present at the initial testing of Member's protective apparatus. Member shall notify Cooperative 5 business days prior to the initial testing. In the event Member has interconnected Member's Solar System without Cooperative's acceptance of this Agreement or the Solar System has not met the requirements of the Interconnection Agreement, Cooperative shall have the right to immediately isolate Member's premises and/or Solar System from Cooperative's system until Cooperative's acceptance is granted and the requirements of the Interconnection Agreement have been met.

- a) **Isolation Device:** Member shall install an externally mounted lockable manual load-break disconnect switch with a clear visible indication of switch position providing disconnecting means between Cooperative's electric system and Member's Solar System. Isolation Device must remain operable by Cooperative's personnel. Location of the Isolation Device must be approved by Cooperative prior to installation by Member.

- b) **Warning Label:** Member will install a permanent warning label in a conspicuous place in close proximity to the electric meter or on the meter base to notify Cooperative personnel that there is a Solar System installed on the premise. The warning label shall not be placed in a location that would interfere with the ability of Cooperative personnel to read the electric meter.
- c) Member's Solar System must be new at the time of installation and must be manufactured, installed and operated in accordance with all applicable governmental and industry standards.
- d) Member shall not make any changes to the Solar System output capacity and/or modification to the protection system required to meet the Interconnection Agreement without first submitting a new "INTERCONNECTION AGREEMENT FOR SMALL SOLAR SYSTEMS" and obtaining a new acceptance from Cooperative before making the changes to the Solar System.
- e) The nameplate output of the Solar System is \_\_\_\_\_ kW in the form of \_\_\_\_\_ phase, alternating current of 60 hertz frequency and at \_\_\_\_\_ volts.
- f) **The point of interconnection between Member and Cooperative will be (check one):**
  - 1) \_\_\_ LOAD SIDE, via circuitry from the Solar System through Member's externally mounted lockable disconnecting means accessible by Cooperative, to Member's main or sub-fed electrical panel, interconnected via a back-fed breaker.
  - 2) \_\_\_ SUPPLY SIDE, via circuitry from the Solar System through Member's externally mounted lockable fused (or breaker type) disconnect (UL Listed as service equipment) accessible by Cooperative, to SUPPLY SIDE interconnection as specified by Cooperative.

**FOR BOTH CASES, COOPERATIVE SHALL APPROVE THE LOCATION OF THE EXTERNALLY MOUNTED LOCKABLE DISCONNECT THAT SHALL REMAIN OPERABLE BY COOPERATIVE PERSONNEL.**

- g) The installation of the Solar System and all equipment in the system must comply with the latest published edition of IEEE 1547, as applicable.
- h) The Member's inverter and interconnection protection system must be tested and listed for compliance with the latest published edition of Underwriters Laboratories, Inc. (UL) 1741.
- i) The Solar System must be a non-islanding type as defined in IEEE 1547.
- j) The Solar System must pass the anti-islanding test in (UL) 1741.
- k) Any protection settings affecting anti-islanding performance must not be adjusted after passing anti-islanding tests.
- l) The grounding scheme of the Solar System shall comply with IEEE 1547.
- m) **Cooperative WILL NOT ALLOW any batteries, battery banks, or any other means of energy storage to be installed on a grid-tied generation system. Any batteries, battery banks, or any other means of energy storage must only be installed and connected to a completely separate and stand-alone system that provides no means of ever being connected to the grid.**
- n) Cooperative WILL NOT ALLOW any Hybrid Inverter to be installed on a grid-tied system.

### **3. COSTS AND FEES**

The cost to Member for all Cooperative owned and maintained facilities constructed and/or installed by Cooperative to accommodate the interconnection and safe operation of Member's Solar System in parallel with Cooperative's electric system shall be determined by the Cooperative in accordance with prudent utility practice. Costs shall include the following:

- (a) Aid of Construction Fee: When applicable, as determined by the Cooperative.

- (b) Interconnection Application Fee: The nonrefundable and nontransferable interconnection application fee covers only the application process for interconnection of Solar Systems and shall be \$500.00.
- (c) Facility Inspection Fee: Facility will be subject to inspection(s) by Cooperative personnel prior to parallel operation commencement. Each inspection shall be in the amount of \$100.00.
- (d) Periodic Inspections: Periodic inspections shall be performed at Cooperative's discretion at the applicable fee at the time of the inspection to be determined by the Cooperative.
- (e) Billing Service Charge: Shall be applied monthly at the applicable rate as follows:
  - i. Generation Meter Service Charge (for Supply Side Connection)
  - ii. Net Metering Service Charge (for Load Side Connection).

#### **4. RIGHT OF ACCESS AND EQUIPMENT INSTALLATION:**

- (a) **Access To Premises:** The duly authorized agents of Cooperative shall have the right of ingress and egress to the premises of Member at all reasonable hours, over the same general route as Member utilizes, for the purpose of reading meters, inspecting Cooperative's wiring and apparatus, changing, exchanging, or repairing its property on the premises of Member and to remove such property at the time of or at any time after the suspension of interconnection of the Solar System or termination of this Agreement. **Cooperative shall have access to Member's Isolation Device at all times.**
- (b) Cooperative's obligation to provide the interconnection as covered in this Agreement on the agreed upon Effective Date is contingent upon Cooperative receiving the rights-of-way and receiving the necessary equipment in sufficient time to install it on or before that date.

**5. MAINTENANCE OF INTERCONNECTION FACILITIES:** Member shall maintain Member's Solar System and all related Member-owned protective equipment and facilities in a safe and prudent manner, conforming to all applicable laws and regulations. Member shall reimburse Cooperative for any and all losses, damages, claims, penalties or liability Cooperative incurs as a result of Member's failure to maintain the Solar System, equipment, and facilities in a safe and prudent manner or failure to obtain and/or maintain any governmental authorizations or permits required for construction and operation of Member's facility.

**6. DISCONNECTION OF SOLAR SYSTEM:** Cooperative may isolate Member's premises and/or Solar System from Cooperative's system when necessary in order to construct, install, repair, replace, remove, investigate, or inspect any of Cooperative's equipment or part of Cooperative's system; or if Cooperative determines that isolation of Member's premises and/or Solar System from Cooperative's system is necessary because of emergencies, forced outages, Force Majeure or compliance with prudent electrical practices. Whenever feasible, Cooperative shall give Member reasonable notice of the possible isolation of Member's premises and/or Solar System from Cooperative's system. Notwithstanding any other provision of this Agreement, if at any time Cooperative determines that either the Solar System may endanger Cooperative's personnel or other persons or property, or the continued operation of Member's Solar System may endanger the integrity or safety of Cooperative's electric system, Cooperative shall have the right to isolate Member's premises and/or Solar System from Cooperative's system. **It is agreed that Cooperative shall have no liability for any loss of sales or other damages, including all punitive and consequential damages for the loss of business opportunity, profits, or other losses, regardless of whether such damages were foreseeable, for the isolation of Member's premises and/or Solar System from Cooperative's system per this Agreement.** Cooperative shall expend reasonable effort to reconnect the Member's premises and/or Solar System with the Cooperative's system in a timely manner.

## 7. PERMITS AND APPROVALS:

- (a) Member shall obtain all environmental and other permits required by governmental authorities prior to construction, installation, and interconnection of the Solar System. Member shall also maintain these applicable permits and compliance with these permits during the term of this Agreement.
- (b) All installed wiring, protection devices, cabinets, and connectors, etc. must comply with the latest published edition of the NEC as used by the local jurisdiction and all applicable local codes. An approved electrical inspection by the authority having jurisdiction is required.**

## 8. INDEMNITY AND LIABILITY:

- (a) **Limitation of Liability:** Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission hereunder, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, special, incidental, consequential, or punitive damages of any kind.
- (b) **Indemnification:** The Member shall at all times indemnify, defend and save the Cooperative harmless from any and all damages, losses, claims, including claims and actions relating to injury or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney's fees, and all other obligations by or to third parties, arising out of or resulting from the Member's action or inaction of its obligations hereunder on behalf of the indemnifying party, except in cases of gross negligence or intentional wrongdoing by the indemnified party.
- (c) The provisions of Section 8.(a) shall not be construed to relieve any insurer of its obligations to pay any claims in accordance with the provision of any valid insurance policy.
- (d) If Member at any time fails to comply with the insurance provisions of this Agreement, Member shall, at its own cost, defend, save harmless and indemnify Cooperative, its directors, officers, employees, agents, assignees, and successors in interest from and against any and all loss, liability, damage, claim, cost, charge, demand, or expense of any kind or nature (including attorney's fees and other costs of litigation) resulting from the death or injury to any person or damage to any property, including the personnel and property of Cooperative, its contractors, its members, and/or the public to the extent that Cooperative would have been protected had Member complied with all such insurance provisions. The inclusion of this Section 8.(d) is not intended to create any express or implied right in Member to elect not to provide any such required insurance.
- (e) Member shall be responsible for installing and maintaining devices adequate to protect against damages caused by irregularities or outages on Cooperative's system, regardless of the cause or fault, including devices to protect against voltage fluctuations and single phasing.

## 9. INSURANCE:

- (a) Member shall obtain and retain, for as long as its Solar System is interconnected with the Cooperative's system, liability insurance which protects Member from claims for bodily injury and/or property damage. For a non-residential Member the minimum coverage shall be comprehensive general liability insurance with coverage at least \$300,000 per occurrence and for a residential Member the minimum coverage shall be at a standard homeowner's insurance policy with liability coverage in the amount of at least \$100,000 per occurrence. Prior to interconnection of the Solar System with Cooperative's system, Member shall furnish a properly executed certificate of insurance to Cooperative clearly evidencing the required

coverage and any exclusions applicable to such coverage. The certificate shall provide that the insurance coverage shall not be canceled or modified unless and until Cooperative receives at least thirty (30) days prior written notice. Member shall further replace such certificates for policies expiring during the period its Solar System is interconnected with Cooperative's system. Cooperative has the right to refuse to establish or continue the interconnection of Member's generation facility to Cooperative's system if such insurance is not in effect.

- (b) Insurance on the premises where the Member's Solar System is located shall, by endorsement to the policy or policies, provide for thirty (30) days of written notice to Cooperative prior to cancellation, termination, alteration, or material change of such insurance.

**10. FORCE MAJEURE:** For purposes of this Agreement, Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, terrorism, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other caused beyond a Party's control. A Force Majeure event does not include an act of negligence or intentional wrongdoing.

**11. NON-WARRANTY:** Cooperative's approvals given pursuant to this Agreement or actions taken hereunder shall not be construed as any warranty or representation to Member or any third party regarding the safety, durability, reliability, performance or fitness of Member's generation and service facilities, its control or protective devices or the design, construction, installation or operation thereof.

**12. EFFECTIVE TERM AND TERMINATION RIGHTS:** This Agreement becomes effective when executed by both parties and shall continue in effect until terminated. The Agreement may be terminated in accordance with the following.

- (a) If Member desires to terminate the Agreement, Cooperative will agree to such termination if Cooperative is satisfied that Member no longer can operate Member's Solar System in parallel with Cooperative's system at the premises and all bills for services previously rendered to Member, plus any applicable termination charges, have been paid.
- (b) Cooperative, in addition to all other legal remedies, may either terminate the Agreement or suspend interconnection with Member (1) for any default or breach of Agreement by Member, (2) for failure to pay any applicable bills when due and payable, (3) for a condition on Member's side of the point of interconnection actually known by Cooperative to be, or which Cooperative reasonably anticipates may be, dangerous to life or property, (4) if Member either fails to energize the Solar System within 12 months of the Effective Date of this Agreement or permanently abandons the Solar System, or (5) by giving the Member at least sixty days notice in the event that there is a material change in an applicable rule or statute concerning interconnection and parallel operation of the Solar System, unless the Member's installation is exempted from the change or the Member complies with the change in a timely manner. No such termination or suspension, however, will be made by Cooperative without written notice delivered to Member, personally or by mail, stating what in particular in the Agreement has been violated, except that no notice need to be given in instances set forth in 12.(b)(3) above. Failure to operate the Solar System for any consecutive 12 month period after the Effective Date shall constitute permanent abandonment unless otherwise agreed to in writing between the Parties.

### **13. GENERAL:**

- (a) This Agreement and the applicable Schedule, Riders, Interconnection Standard, Service Regulations, and Terms and Conditions For the Purchase of Electric Power hereto attached are subject to changes or substitutions, either in whole or in part, made from time to time by a legally effective filing of Cooperative with, or by order of, the regulatory authority having jurisdiction, and each party to this Agreement reserves the right to seek changes or substitutions, in accordance with law, from such regulatory authority. Unless specified otherwise, any such changes or substitutions shall become effective immediately and shall nullify all prior provisions in conflict therewith.
- (b) Headings: The descriptive headings of the various sections of this Agreement have been inserted for convenience of reference only and are to be afforded no significance in the interpretation or construction of this Agreement.

**14. ENTIRE AGREEMENT:** This Agreement and the documents attached hereto constitute the entire Agreement between the Parties relating to the subject matter hereof, there being no other agreements or understandings, written or oral, other than those contained in this Agreement and the attachments hereto. This Agreement does not modify, change or impact any other agreement between the Parties relating to the supply of electric service, or the sale of, or purchase of, electric power.

**15. AMENDMENTS:** The Parties may amend this Agreement, but such amendment may only be effective and enforceable if it is set forth in a written instrument signed by both Parties.

**16. ASSIGNMENT:** Member shall not assign its rights nor delegate its duties under this Agreement without Cooperative's written consent. Any assignment or delegation Member makes without Cooperative's written consent shall not be valid. Cooperative shall not unreasonably withhold its consent to Member's assignment of this Agreement. An assignee or new member must submit a new "INTERCONNECTION AGREEMENT FOR SMALL SOLAR SYSTEMS" to Cooperative and obtain Cooperative's written approval before any assignment shall occur. Member assumes the responsibility of ensuring a new member or assignee is aware the new member or assignee must re-apply and obtain Cooperative's written acceptance or the equipment must be removed or disabled to prevent future interconnection and/or operation.

**17. THIRD PARTIES:** This Agreement is intended solely for the benefit of the parties hereto. Nothing in this Agreement shall be construed to create any duty to, or standard of care with reference to, or any liability to, any person not a party of this Agreement.

**18. GOVERNING LAW:** This Agreement shall be governed under laws of the State in which the interconnection between the facilities of Cooperative and Member, which is the subject hereof, is located.

**19. SEVERABILITY:** If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction, such portion or provision shall be deemed separate and independent, and the remainder of this Agreement shall remain in full force and effect.

**20. WAIVER:** No delay or omission in the exercise of any right under this Agreement shall impair any such right or shall be taken, construed or considered as a waiver or relinquishment thereof, but any such right may be exercised from time to time and as often as may be deemed expedient. In the

event that any agreement or covenant herein shall be breached and thereafter waived, such waiver shall be limited to the particular breach so waived and shall not be deemed to waive any other breach hereunder.

**21. MEMBER CERTIFICATION:** By signing this Agreement below, Member hereby certifies that, to the best of Member's knowledge, all of the information provided in this "INTERCONNECTION AGREEMENT FOR SMALL SOLAR SYSTEMS" is true and correct, the Solar System will comply with the Interconnection Standard, and that Member has received and reviewed this Agreement.

**22. ACCEPTANCE AND SIGNATURES:** Upon the acceptance hereof by Cooperative, evidenced by the signature of its authorized representative appearing below, this document shall be an Agreement for the interconnection of Member's Solar System to Cooperative's system.

**Witness as to Member:**

\_\_\_\_\_  
(signature)

By (print) \_\_\_\_\_

Title \_\_\_\_\_

This \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_

**Address of Member:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Accepted: FORT LOUDOUN ELECTRIC COOPERATIVE**  
(or electronic signature)

By \_\_\_\_\_

Title \_\_\_\_\_

This \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_

**FORT LOUDOUN ELECTRIC COOPERATIVE**

**Application for Operation of Member-Owned Solar System**

**This application should be completed and returned to the Cooperative Member Service representative in order to begin processing the request.**

*INFORMATION: This application is used by the Cooperative to determine the required equipment configuration for the Member interface. Every effort should be made to supply as much information as possible.*

**PART 1**

**OWNER/APPLICANT INFORMATION**

Owner/Member

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

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

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

Phone Number: \_\_\_\_\_ Representative: \_\_\_\_\_

Email Address: \_\_\_\_\_ Fax Number: \_\_\_\_\_

**PROJECT DESIGN/ENGINEERING (ARCHITECT) (as applicable)**

Company: \_\_\_\_\_

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

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

Phone Number: \_\_\_\_\_ Representative: \_\_\_\_\_

Email Address: \_\_\_\_\_ Fax Number: \_\_\_\_\_

**ELECTRICAL CONTRACTOR**

Company: \_\_\_\_\_

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

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

Phone#: \_\_\_\_\_ Representative: \_\_\_\_\_

Email Address: \_\_\_\_\_ Fax#: \_\_\_\_\_



**ESTIMATED LOAD, GENERATOR RATING AND MODE OF OPERATION INFORMATION**

The following information is necessary to help properly design the Cooperative - Member interconnection. This information is not intended as a commitment or contract for billing purposes.

Total Site Load \_\_\_\_\_ (kW)  
Residential \_\_\_\_\_ Commercial \_\_\_\_\_ Industrial \_\_\_\_\_  
Generator Rating \_\_\_\_\_ (kW) Annual Estimated Generation \_\_\_\_\_ (kWh)

**DESCRIPTION OF PROPOSED INSTALLATION AND OPERATION**

Give a general description of the proposed installation, including a detailed description of its planned location, the date you plan to operate the generator, the frequency with which you plan to operate it and whether you plan to operate it during on or off-peak hours.

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**INVERTER DATA**

Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_  
Rated Power Factor (%): \_\_\_\_\_ Rated Voltage (Volts): \_\_\_\_\_ Rated Amperes: \_\_\_\_\_  
Inverter Type: \_\_\_\_\_  
Type commutation: \_\_\_ forced \_\_\_ line  
Harmonic Distortion: Maximum Single Harmonic (%) \_\_\_\_\_  
Maximum Total Harmonic (%) \_\_\_\_\_