vFY2015.1a Special Category Solar Electric Final Project Documentation

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Vermont Small Scale Renewable Energy Incentive Program SPECIAL CATEGORY CUSTOMER SOLAR ELECTRIC SYSTEM Final Project Documentation and Incentive Request Form

INSTRUCTIONS: Please read carefully and complete all sections. Incomplete or incorrectly completed forms will cause delay, may be returned to the applicant, and may not be approved for incentive payment. Return completed and signed form to the address below. All customers, installers, lessors, and subcontractors must consult the SSREIP Terms, Conditions, and Requirements for further information: rec-vt.org/fund-availability/incentives-program/application-forms If you need a printed copy, please contact the RERC at 877-888-2737.

Vermont Small Scale Renewable Energy Incentive Program
Attn: Renewable Energy Resource Center
128 Lakeside Avenue, Suite 401
Burlington, VT 05401

Email: info@rerc-vt.org Fax to Attention: RERC (802) 658-1643

| INCENTIVE RESERVATION | INFORMATION | |
|--|---|--|
| Incentive Reservation Number | | (from Approval Letter) |
| Customer Name | | |
| Reserving PV Partner Company ¹ | | |
| NOTE : If you answer YES to the fol "Expanded Technical Documentati | | rements will apply. Please fill out and submi Final Incentive Request). |
| - | Provisional Partner, or is this one of solar electric reservations in the | |
| Lead Installer ² | | |
| Installation Company (if not Reserv | ving Co.) | |
| Date Installation Began | | |
| Final Inspection Date ³ | | |
| Date Commissioned | | |
| | | |
| ¹ Must be an approved REV PV Partn | | |
| | | direct contract by the REV PV Partner, and me |
| | | e final inspection before commissioning. |
| | d before commissioning and be don | ne by the qualified installer listed. |
| RERC USE ONLY: | | |
| Date Rec'd: | Res. Number: | Date Apprvd: |

| All items must be included (checked) or marked N/A if not applicable. The installation and documentation must meet all of the program requirements outlined in the SSREIP Terms, Conditions, and Requirements. Copy of Final Customer Invoice clearly indicating transfer of benefit to the customer (either credit or rebate). Copy of the Certificate of Public Good (all pages) or signed/dated copy of CPG Registration (for PV systems 15 kW and under). System Photograph of the Complete PV Array (must show all modules). Copy of Letter of Compliance with the State Historic Preservation Act — mark N/A if not applicable. Supporting Documentation for the Efficiency Adder — mark N/A if not applicable. Supporting Documentation for the Electric Vehicle Adder — mark N/A if not applicable. PROJECT CHANGE INFORMATION NOTE: Fill out ONLY if changes have been made to the system listed in the original reservation. Module Manufacturer Model # Quantity Total Array Output Inverter A Manufacturer Model # Inverter B Manufacturer Model # Quantity Total Inverter Output Other (Specify): | SUPPORTING DUCUMENTATION CHI | CKLIST |
|--|---|--|
| rebate). 4 Copy of the Certificate of Public Good (all pages) or signed/dated copy of CPG Registration 5 (for PV systems 15 kW and under). System Photograph of the Complete PV Array (must show all modules). Copy of Letter of Compliance with the State Historic Preservation Act 6 – mark N/A if not applicable. Supporting Documentation for the Efficiency Adder 7 – mark N/A if not applicable. Supporting Documentation for the Electric Vehicle Adder 8 – mark N/A if not applicable. PROJECT CHANGE INFORMATION NOTE: Fill out ONLY if changes have been made to the system listed in the original reservation. Module Manufacturer Model # Quantity Total Array Output Inverter A Manufacturer Model # Quantity Total Inverter Output | , | , · · · · · · · · · · · · · · · · · · · |
| (for PV systems 15 kW and under). System Photograph of the Complete PV Array (must show all modules). Copy of Letter of Compliance with the State Historic Preservation Act ⁶ – mark N/A if not applicable. Supporting Documentation for the Efficiency Adder ⁷ – mark N/A if not applicable. Supporting Documentation for the Electric Vehicle Adder ⁸ – mark N/A if not applicable. PROJECT CHANGE INFORMATION NOTE: Fill out ONLY if changes have been made to the system listed in the original reservation. Module Manufacturer Model # Quantity Total Array Output Inverter A Manufacturer Model # Quantity Total Inverter Output | · · · | indicating transfer of benefit to the customer (either credit or |
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| Supporting Documentation for the Efficiency Adder 7 – mark N/A if not applicable. Supporting Documentation for the Electric Vehicle Adder 8 – mark N/A if not applicable. PROJECT CHANGE INFORMATION NOTE: Fill out ONLY if changes have been made to the system listed in the original reservation. Module Manufacturer Model # Quantity Total Array Output Inverter A Manufacturer Model # Quantity Total Inverter Output | System Photograph of the Complete P\ | / Array (must show all modules). |
| Supporting Documentation for the Electric Vehicle Adder * - mark N/A if not applicable. PROJECT CHANGE INFORMATION NOTE: Fill out ONLY if changes have been made to the system listed in the original reservation. Module Manufacturer | Copy of Letter of Compliance with the S | State Historic Preservation Act ⁶ – mark N/A if not applicable. |
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| NOTE: Fill out ONLY if changes have been made to the system listed in the original reservation. Module Manufacturer | Supporting Documentation for the Elec | tric Vehicle Adder ⁸ – mark N/A if not applicable. |
| Module Manufacturer Quantity Total Array Output Inverter A Manufacturer Model # Inverter B Manufacturer Model # Quantity Total Inverter Output | PROJECT CHANGE INFORMATION | |
| Quantity Inverter A Manufacturer Model # Inverter B Manufacturer Model # Quantity Total Inverter Output | NOTE: Fill out ONLY if changes have been made t | to the system listed in the original reservation. |
| Inverter A Manufacturer Model # Inverter B Manufacturer Model # Quantity Total Inverter Output | Module Manufacturer | Model # |
| Inverter B Manufacturer Model # Quantity Total Inverter Output | Quantity | Total Array Output |
| Quantity Total Inverter Output | Inverter A Manufacturer | Model # |
| | Inverter B Manufacturer | Model # |
| Other (Specify): | Quantity | Total Inverter Output |
| Other (specify): | Other (Specific) | |
| | Other (Specify): | |
| | | |

8 The following may be submitted as supporting documentation for the Efficiency Adder: Photo of the Electric Vehicle (EV) Charging Station; cost of EV Charging Station listed as a line-item on the invoice.

⁴ The originally approved Vermont Small Scale Renewable Energy Incentive amount must be listed as a line item on the final invoice. If there are changes to the system that could justify a larger incentive, the original reserved incentive amount AND the new requested amount with a note about the requested increase must be listed on the invoice. A larger incentive may or may not be granted on a case-by-case basis. If the installed system is smaller than originally approved, the incentive amount on the invoice must reflect the decreased incentive amount justified by the change. 5 The Registration can only be used to meet this requirement if no comments on the registration were received by the Public Service Board during the 10-day comment window.

⁶ Required if the system is roof-mounted and the building is fifty years or older, or if the project did required any ground disturbance, as indicated on the Incentive Reservation Form.

⁷ The following may be submitted as supporting documentation for the Efficiency Adder: 1) Documentation of completed energy audit with date performed and recommended measures; or 2) Copy of invoice to customer for recommended measures installed; or 3) Documentation of participation and completion of the Vermont Energy Star Homes or Energy Code Plus programs (new construction); or 4) Copy of invoice to customer for eligible cold climate air source heat pump installation, plus documentation of completed energy audit with date performed and recommended measures.

FINAL INCENTIVE CALCULATION AND SYSTEM COST WORKSHEET

NOTE: Any changes between the system as proposed under the original, approved incentive reservation and the system as installed must be fully documented and are subject to review and approval with respect to system eligibility and final incentive amount.

| System's Total Array Capacity (as installed) | DC Watts |
|---|----------|
| Estimated Annual kWh Production | kWh/year |
| Production Ratio (Est. Ann. kWh Production ÷ Array Capacity) ⁹ | |
| Total Installed System Cost (before incentive amount is removed) | \$ |
| Originally Approved Incentive Reservation Amount | \$ |
| Efficiency Adder (if applicable) | \$ |
| Final Requested Incentive Amount (prorated, if applicable) | \$ |

PROJECT TECHNICAL DOCUMENTATION WORKSHEET

| 1. | Solar Electric Module Orientation (check one and fill in the blank, when applicable): |
|----|---|
| | ☐ Magneticdegrees |
| | ☐ True degrees |
| | □ Tracker |
| 2. | Solar Electric Module Tilt (check one and fill in the blank, when applicable): |
| | ☐ Fixed ¹⁰ at degrees (0° horizontal, 90° vertical) |
| | ☐ Single Axis Tracking |
| | □ Double Axis Tracking |
| 3. | Derate Factor due to shading or non-optimal sitting: |
| 4. | Warranty Information: |
| | Module: years (min. 5 years required) at % of rated power output |
| | Inverter: years (min. 5 years required) |
| | Initial Installation: years (min. 5 years required) |
| | |
| | |

 $^{^9}$ Answer must be greater than 1 to receive final requested incentive amount. Systems that are estimated to generate less than 1,000 kWh/yr per kw will only be eligible for a prorated incentive amount equal to the same percentage that the estimated kWh/year per kW of rated DC capacity is of the standard 1000:1 ratio. This requirement is intended to discourage poorly sited PV systems. E.g. if a 1kW system (\$250 incentive) is estimated to generate 850kWh/year you can expect to receive 85% of your originally reserved incentive or \$213(\$250 x .85 = \$213). You are required to provide the prorated incentive amount on the customer's invoice.

¹⁰ If fixed with adjustable tilt, please select "fixed."

EXPANDED PROJECT TECHNICAL DOCUMENTATION WORKSHEET

INSTRUCTIONS: Fill out **ONLY** if you are a Provisional Partner **OR** if this is your first or second reservation.

Please include the following documentation in your submission:

- 1. One-line Diagram(s) and/or schematic showing system details as installed including the following:
 - a. All major field-installed electrical components, including inverter make and model;
 - b. Detailed module information and series/parallel configuration of modules;
 - c. Wire type and wire size to all major system components, including grounding details;
 - d. Conduit type and size;

- e. Ratings for all circuit breakers and fuses;
- f. For battery systems, charge controllers and non-PV generators where applicable;
- g. Details of Photovoltaic Output Circuit as posted on DC connect;
- h. Locations of junction or combiner boxes;
- i. The utility disconnect type and location; and
- j. Means and location of connecting to the building electrical system.
- 2. System Photographs showing all major field-installed structural, mechanical, and electrical components, including (must be submitted electronically to info@rerc-vt.org):
 - a. PV array;
 - b. Balance of the system all equipment necessary to integrate the PV with the site load (i.e. array circuit wiring and management of wiring, fusing, disconnects, power processing equipment, batteries, charge controllers, location where solar-electric system interconnects to the utility);
 - c. All labeling associated with NEC posting requirements; and
 - d. The back of any ground mounted array or pole mount under 8' from the ground.

| Please perform the following | ; calculations and | provide information as requested: |
|---|--------------------|--|
| Information as poster module/microinverte | | Durce Sign (Microinverter systems must use a single ations): |
| Does the inverter ho | ive two inputs? | ☐ Yes ☐ No |
| Does the system use | ? microinverters? | ☐ Yes ☐ No |
| | SHOW F | FORMULA (REQUIRED) |
| Operating Current | | |
| Operating Voltage | | |
| Maximum System Voltage | | |
| Short Circuit Current | | |
| Information as poster point of connection, and a second connection, and a second connection connection. | | ing AC point of connection (permanently located on site at AC C). |
| Max. Operating Current | | |
| Operating AC Voltage | | |

SIGNATURES/CERTIFICATIONS

CUSTOMER CERTIFICATION

| I have read and meet the requirements as listed in the current SSREIP Terms, Conditions, and Requirements. |
|---|
| I have purchased the solar electric system described in this document and it has been installed at the location indicated above and is operational. |
| I am aware that the incentive payment will be made by check directly to the reserving company <i>only after</i> the company has submitted the Final Project Documentation paperwork and received final approval from the RERC, including any necessary site visits. |
| I am aware that the incentive benefit is mine and has been or will be applied to the total system cost in a manner agreeable to both parties. |
| I have been provided with a copy of a user's manual for this system and I am familiar with recommendations for the system's safe operation and maintenance. |
| I have received and reviewed warranty information. |
| I have received and reviewed an estimate of the system's annual output. |
| I am aware that the incentive program will be conducting randomly selected site visits. If requested, I am willing to schedule and allow a site visit of the system for program verification. |
| I have given the Small Scale Renewable Energy Incentive Program permission to use photographs of my installation in promotional materials (not required). |
| I understand that any deliberate attempt to misrepresent information in this application will disqualify me from participation and all claims to incentives offered through Vermont's Small Scale Renewable Energy Incentive Program. |
| Customer's Signature Date |
| |
| RESERVING PARTNER CERTIFICATION |
| RESERVING PARTNER CERTIFICATION I certify that my company has worked with the customer referenced above to install the solar electric system described above; my company designed the system as installed and has been substantially involved with the customer. The system is now fully installed, has been inspected, and is operational. It has been installed in accordance with the program's eligibility requirements, the Vermont Interconnection Safety and Technological Requirements and the National Electric Code®. The customer was provided with information on the warranty, safe operation, and maintenance of their system, including a copy of a user's manual for this system. |
| I certify that my company has worked with the customer referenced above to install the solar electric system described above; my company designed the system as installed and has been substantially involved with the customer. The system is now fully installed, has been inspected, and is operational. It has been installed in accordance with the program's eligibility requirements, the Vermont Interconnection Safety and Technological Requirements and the National Electric Code®. The customer was provided with information on the warranty, safe operation, and maintenance of their system, including a copy |
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