



## Vermont Small Scale Renewable Energy Incentive Program Micro Hydro System Project Documentation and Final Incentive Request

***Incomplete documentation will be returned to the Installer***

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.

### Incentive Reservation Information

Incentive Reservation Number: \_\_\_\_\_ (From Approval Letter)

If a Residential system, Customer Name: \_\_\_\_\_

If a Non-Residential system, Company/Organization Name: \_\_\_\_\_

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

Commissioned by (must be a REV Partner): \_\_\_\_\_

Installed by (individual must be under direct contract, or an employee with the REV Partner listed above):  
\_\_\_\_\_

Incentive Reservation Expiration Date: \_\_\_\_\_ (From Approval Letter)

### Documentation Checklist

***All items MUST be checked (included) or marked N/A if not applicable to your project***

\_\_\_\_\_ Documentation Checklist (this page)

\_\_\_\_\_ Project Change Information Sheet (filled out even if there are no changes)

\_\_\_\_\_ Final Incentive Calculation and System Cost Worksheet

\_\_\_\_\_ Copy of Final Customer Invoice

- A copy of the final invoice (dated and itemized) for the system as installed must be included. **The originally approved Vermont Small Scale Renewable Energy Incentive amount must be listed as a line item on the final invoice, unless the installed system is smaller than that approved, in which case the calculation from the Final Incentive Calculation Form should be listed.**

\_\_\_\_\_ Copy of Certificate of Public Good (all pages)

\_\_\_\_\_ Copies of all pertinent State and Federal permits and licenses (FERC, ANR, & US Army Corps. Of Engineers 404 Permit)

\_\_\_\_\_ Project Technical Documentation Worksheet

\_\_\_\_\_ One-line Diagram – following all instructions in the Project Technical Documentation Worksheet

- Cut or specification sheets for major components are strongly recommended but not required

RERC USE ONLY:

Date Rec'd: \_\_\_\_\_

Res. Number \_\_\_\_\_

Date Apprvd: \_\_\_\_\_ Page 1 of 8

\_\_\_\_\_ Signatures/ Certifications Page

- All customer certification items must be checked off by the customer
- Customer and Installer must sign

\_\_\_\_\_ System Photographs – following all instructions in the Project Technical Documentation Worksheet (photographs must be submitted electronically)

\_\_\_\_\_ **For non-residential projects** - Davis-Bacon Act required reporting forms for laborers and merchants working on site (can be found at <http://www.dol.gov/whd/forms/wh347.pdf>) **These forms may not be included with the Project Documentation and Final Incentive Request form if completion of the Project Documentation and Final Incentive Request form occurs several weeks after the project has been installed.**

\_\_\_\_\_ **For all projects** - American Recovery and Reinvestment Act of 2009 required reporting information:

Employee/Subcontractor Role (e.g. admin staff or mason)	40 hour work week (y/n - if no please write in how many hours per week for personnel)	# of hours spent on project	# of non-Federal hours*

\*These are jobs that are paid by non-federal funds that are attracted in by Recovery Act funding.

\_\_\_\_\_ **Copy of Letter of Compliance with Section 106 (project complies with the National Environmental Policy Act). Mark N/A if building is less than 50 years old as indicated on the Reservation Application.**

\_\_\_\_\_ **If project is for a public building or public work, it complies with the “Buy America Provision”. Mark N/A if not applicable.**

\_\_\_\_\_ **Property Certification – provide serial numbers for individual equipment components valued at more than \$5,000:**

Component description	Serial Number

**Project Documentation and Final Incentive Request Form Instructions**

1. Fill out the form entirely. All information is necessary for processing.
2. Mail the complete incentive packet to:

Vermont Small Scale Renewable Energy Incentive Program  
255 South Champlain Street, Suite 7  
Burlington, VT 05401

**Information on renewable energy and the Vermont Small Scale Renewable Energy Incentive Program is available through the Renewable Energy Resource Center at [www.erc-vt.org](http://www.erc-vt.org) or by calling 1-877-888-7372.**

## Project Change Information Sheet

Identify and explain any differences between the project **AS INSTALLED** and the information provided on the incentive reservation application form. If there have been changes, you must identify them below.

Incentive Reservation Form Section	CIRCLE THE CORRECT RESPONSE TO EACH							
<b>Section A: Customer Information</b>	<b>NO CHANGES</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%; text-align: center; padding: 5px;"><b>CHANGE TO:</b></td> </tr> <tr> <td colspan="2" style="height: 40px;"></td> </tr> </table>		<b>CHANGE TO:</b>				
	<b>CHANGE TO:</b>							
<b>Section B: Contractor /Installer Information</b>	<b>NO CHANGES</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%; text-align: center; padding: 5px;"><b>CHANGE TO:</b></td> </tr> <tr> <td colspan="2" style="height: 40px;"></td> </tr> </table>		<b>CHANGE TO:</b>				
	<b>CHANGE TO:</b>							
<b>Section C: Equipment Information</b>	<b>NO CHANGES</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%; text-align: center; padding: 5px;"><b>CHANGE DOCUMENTED BELOW</b></td> </tr> <tr> <td colspan="2" style="padding: 5px;"> <p>Changes to equipment require a full description of the equipment installed. Please give full information on all changes below: Manufacturer (turbine, inverter), site head, site mean flow model #s, power ratings, number of turbines and/or inverters.</p> <p><b><i>NOTE: Incentive reservations are based on the ORIGINAL equipment configuration</i></b></p> </td> </tr> <tr> <td colspan="2" style="height: 300px;"></td> </tr> </table>		<b>CHANGE DOCUMENTED BELOW</b>	<p>Changes to equipment require a full description of the equipment installed. Please give full information on all changes below: Manufacturer (turbine, inverter), site head, site mean flow model #s, power ratings, number of turbines and/or inverters.</p> <p><b><i>NOTE: Incentive reservations are based on the ORIGINAL equipment configuration</i></b></p>			
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## Final Incentive Calculation and System Cost Worksheet

**Site Head** \_\_\_\_\_ (feet)

**System mean flow** \_\_\_\_\_ (gallons per minute)

**Total Turbine Output** (as installed): \_\_\_\_\_ Watts (Circle one: AC or DC )

### **Micro Hydro Incentive Calculation:**

Any changes between the system as proposed under the original, approved incentive reservation and the system as installed must be fully documented when the project documentation forms are submitted. Any such changes are subject to review and approval with respect to system eligibility and final incentive amount.

Schools, Farms, Local/ State Government Project and Low Income Multi Family Applicants:

Original approved incentive reservation amount: \_\_\_\_\_

Head x Mean flow (as installed) / 5 x \$3.50 = \_\_\_\_\_

Final Requested Incentive amount: \_\_\_\_\_

Must be the lesser of:

- The amount calculated above
- \$20,000
- 50% of the total installed system costs, as calculated according to final invoice (included)

Other Applicants:

Original approved incentive reservation amount: \_\_\_\_\_

Final incentive calculation – choose the appropriate incentive level:

Head x Mean flow (as installed) / 5 x \$1.75 = \_\_\_\_\_

With commercially-available Vermont-made qualifying equipment: Head x Mean flow (as installed) / 5 x \$2.50 = \_\_\_\_\_

Final Requested Incentive amount: \_\_\_\_\_

Must be the lesser of:

- The amount calculated above
- \$8,750

**Installed System Cost:** \_\_\_\_\_

## Project Technical Documentation Worksheet

The following items are required and should be included with the final documentation:

1. All systems must be net-metered, utility-interconnected systems and must include a copy of their **Certificate of Public Good (CPG)**.
2. The installation and documentation must meet all of the requirements outlined in **Section E: Eligibility Requirements** of the **Micro Hydro Incentive Reservation Form**.
3. One-line diagram(s) and/or schematic showing system details **as installed** – including the following:
  - All major structural and mechanical components of the system, including intake, trash rack, pen stock, nozzles, turbine, generator/alternator, draft tube or out feed, and tailrace. Please include system head and mean flow, and length of penstock.
  - All major field-installed electrical components, including inverter make and model, any power conditioning equipment, load governors, voltage regulators, dump loads and all associated wire in and out of the inverter
  - Detailed turbine information and details of the hydro system output circuit
  - Wire type and sizing, all DC and AC wire run lengths and wire size to all major system components, including grounding details
  - Conduit type and size where needed, number of conductors, and wire run length
  - Hydro power source disconnecting means
  - Ratings for all circuit breakers and fuses
  - Locations of junction or combiner boxes
  - The utility disconnect type and location
  - Means and location of connecting to the building electrical system
  - For battery systems; charge controllers and non-hydro generators where applicable
3. Photographs showing all major field-installed structural, mechanical and electrical components including:
  - Micro-hydro turbine
  - Balance of the System: all equipment necessary to integrate the micro-hydro turbine with the site load (i.e. turbine circuit wiring and management of wiring, fusing, disconnects, power processing equipment, batteries, charge controllers, location where micro-hydro system interconnects to the utility)
  - Attachment points and mechanical penetration points
  - If located in a river: a photo of the turbine interface with the dam, and the condition of the dam (upstream angle, downstream angle, and from both sides of the river)
  - All labeling associated with NEC posting requirements.
4. Information as posted on the Hydro Power Source Sign (permanently located on site at turbine disconnect, as required by the NEC). NOTE: Please use manufacturer's published ratings.

**Operating Current:**

\_\_\_\_\_ Manufacturer's operating current range

**Operating Voltage:**

\_\_\_\_\_ Manufacturer's operating current range

**Maximum System Voltage:**

**Maximum System Current:**

5. Information as posted on sign identifying AC point of connection (permanently located on site at AC point of connection, as required by NEC)

**Maximum Operating Current:**

\_\_\_\_\_ Inverter continuous output current rating

**Operating AC Voltage:**

\_\_\_\_\_ Nominal AC voltage at interconnect

## Project Technical Documentation Worksheet (cont.)

1. Can the system operate independent of the grid as a stand-alone power source and in parallel with the grid?

\_\_\_\_\_ **Yes.** If so, there must be a sign at the main service disconnect notifying the type and location of the optional standby system – indicate on one-line schematic.

\_\_\_\_\_ **No,** the system is grid connected but is not capable of operating independently of grid power.

\_\_\_\_\_ **No,** the system is off-grid. **Off-grid systems are not eligible for an incentive.**

2. Turbine distance from point of grid connection: \_\_\_\_\_ feet

3. System head: \_\_\_\_\_ **feet**

4. Penstock diameter: \_\_\_\_\_ inches

5. Estimated mean average annual flow: \_\_\_\_\_ (gallons per minute)

6. Estimated Annual Output of the system as installed: \_\_\_\_\_ kWh/year

7. Cut or specification sheets for major components

8. Warranty Information:

Turbine: \_\_\_\_\_ years (**minimum 5 years required**)

Inverter (Power conditioning center): \_\_\_\_\_ years (**minimum 5 years required**)

Installation: \_\_\_\_\_ years (**minimum 5 years required**)

14. The submission of digital or standard photographs of the installation is required.  
**Please sign here if we may use your photographs for program promotion.**

## **Signatures/Certifications**

### **Residential Customer Certification**

I certify that I meet the participant eligibility requirements as listed on the Incentive Reservation Form. I have also purchased the micro-hydro system described in this application and it has been installed and is operating at the location indicated above. I further certify that (all items must be checked off by the customer):

- I am a residential customer, and am aware that the incentive payment will be made by check directly to me *only after* the installer has submitted the Final Project Documentation paperwork and received final approval, including any necessary site visits.
- 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 an estimate of the system's annual output.
- I am aware that the incentive program will be conducting limited site visits. If requested, I am willing to schedule and allow a site visit of the system for program verification.
- I certify that this installation complies with all requirements set forth by the American Recovery and Reinvestment Act of 2009.

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

### **Non-Residential Customer Certification**

I certify that I meet the participant eligibility requirements as listed on the Incentive Reservation Form. I have also purchased the micro-hydro system described in this application and it has been installed and is operating at the location indicated above. I further certify that (all items must be checked off by the customer):

- I am a non-residential customer, and am aware that the incentive payment will be made by check directly to my installer *only after* the installer has submitted the Final Project Documentation paperwork and received final approval, including any necessary site visits.
- 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 an estimate of the system's annual output.
- I am aware that the incentive program will be conducting limited site visits. If requested, I am willing to schedule and allow a site visit of the system for program verification.
- I certify that this installation complies with all requirements set forth by the American Recovery and Reinvestment Act of 2009.

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

**Installer Certification**

I certify that I have worked with the customer referenced above to install the micro-hydro system described above. The system is now fully installed and operational. It has been installed in accordance with the program's eligibility requirements, the Vermont Interconnection Safety and Technological Requirements (VT Public Service Board Order of April 21, 1999), and the National Electric Code®. I have also provided the customer with information on the warranty, safe operation, and maintenance of their system, including a copy of a user's manual for this system.

I understand that if I am installing a renewable energy system for a residential customer, the incentive payment will be made by check directly to the homeowner only after the installer has submitted the Final Project Documentation paperwork and received final approval, including any necessary site visits.

I understand that if I am installing a renewable energy system for a non-residential entity that I must abide by the reporting requirements set forth by the Davis-Bacon Act in order to receive the incentive payment, made by check directly to me.

I certify that this installation complies with all requirements set forth by the American Recovery and Reinvestment Act of 2009.

I understand that any deliberate attempt to misrepresent information in this application will disqualify me from participation in the program and all claims to incentives offered through Vermont's Small Scale Renewable Energy Incentive Program.

\_\_\_\_\_  
Installer's Signature

\_\_\_\_/\_\_\_\_/\_\_\_\_  
Date