

**Form PV: Solar Photovoltaic Systems
Utah Renewable Energy Systems Tax Credit
Investment Tax Credit Certification**



This form must be completed by all applicants seeking Utah tax credits for a system producing electricity from the sun by using photovoltaic (PV) technology

Taxpayer Name

Social Security Number or Federal ID Number

Does your photovoltaic system feed power into a building's electrical system?

If not, explain how the power is used

Is the building for which you are providing power connected to a utility's electrical grid?

Yes (Include interconnection or net metering agreement; see instructions)

No

If no, how far is the building from the nearest utility power lines?

Does your photovoltaic system include batteries?

Yes

No

If yes, enter the make and model

Number of batteries

Volts

Amps per battery

Were the batteries used when you bought them?

Yes

No

List make and model of PV modules (see instruction)

Number of modules

Total capacity (watts) of the system

List make and model of inverter(s) (see instructions)

Number of inverters

Array orientation (in degrees)

Array tilt (degrees from horizontal)

Total cost of your PV system

Total eligible PV equipment cost (see instructions)

Total eligible PV installation and other costs (see instructions)

Total eligible PV cost (sum of equipment, installation, and other)

Reasonable cost limitation (see instructions)

Enter amount of credit claimed for the PV system above (see instructions)

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Equipment Vendor Information

Name
Street Address
Town/City State Zip
Phone

Project Installer Information (see instructions)

Name
Street Address
Town/City State Zip
Phone
Contractor License Number License Type

I certify that I installed the photovoltaic system described on Forms A and PV of this application.

Signature Date

System Certification (see instructions)

Name of Certifier
Street Address
Town/City State Zip
Phone
Contractor or Inspector License Number
License Type

I certify that I have inspected the photovoltaic system described on Forms A and PV of this application. I further certify that upon inspecting this system I have found it to be a safe system and that it conforms with the National Electric Code and with all other building and safety codes applicable within the state of Utah at this time.

Signature Date

REMINDER: Documentation of your PV system must be attached. See Form A for general documentation requirements. Also see the instructions for documentation requirements that are specific to PV systems.

Instructions for Form PV: Solar Photovoltaic Systems

Net metering / Interconnection agreement: PV systems that are connected to a utility's electrical grid, either directly or through a building, must meet all interconnection standards of the local electrical utility and must include a copy of an interconnection or net metering agreement with the utility with an application for a tax credit. If the utility does not provide a net metering policy, documentation from the utility acknowledging that the system is approved to be on their service territory is required.

List make and model of PV modules: PV modules are the individual panels or units that combine to create a complete PV array. List here the company that made your panels, their model number, and the rated gross capacity (in watts) of the complete system. Note that in order for modules to be eligible for tax credits in Utah, they must be listed as eligible modules under the California Solar Initiative Program. A list of eligible modules can be found at <http://gosolarcalifornia.org/equipment/pvmodule.php>. If the modules used are not listed as eligible at the site above, they may be considered eligible if the taxpayer can demonstrate to USEP that the modules meet standards that are equivalent to those of the California Solar Initiative Program as of calendar year 2007. PV modules also must be certified for safety by a Nationally Recognized Testing Laboratory, be warranted by the manufacturer to produce at least 80% of rated output after twenty years of operation, and have a ten year product warranty from the time of purchase.

List make and model of inverter(s): Inverters transform the DC power from your modules and/or batteries into alternating current for use in a building or to place onto the electrical grid. List here the company that made your inverter and the model number. Note that in order for inverters to be eligible for tax credits in Utah, they must be listed as eligible inverters under the California Solar Initiative Program. A list of eligible inverters can be found at <http://gosolarcalifornia.org/equipment/inverter.php>. If the inverter used is not listed as eligible at the site above, it may be considered eligible if the taxpayer can demonstrate to USEP that the inverter meets standards that are equivalent to those of the California Solar Initiative Program as of calendar year 2007. Inverters and charge controllers also must be certified for safety by a Nationally Recognized Testing Laboratory and be warranted by the manufacturer against failure due to materials and workmanship for at least five years.

Eligible Equipment Costs: The costs of the following solar PV system equipment are eligible for tax credits:

1. PV modules (see above),
2. Inverter (see above),
3. Motors and other elements of a tracking array,
4. Mounting hardware,
5. Wiring and disconnects from modules to the inverter and from the inverter to the point of interconnection with the AC panel, and
6. Lightning arrestors.

The costs of the following equipment are eligible for PV systems only if the system or the site at which it operates is not connected to a utility's electrical grid and it provides electricity to a building or structure that is more than one quarter mile from a utility's power line:

1. Batteries,
2. Battery wiring,
3. Charge controllers, and
4. Battery temperature sensors.

The costs of system performance monitoring hardware and software are not eligible for tax credits. Grid connected backup power and monitoring systems such as Grid Point back-up power systems are not eligible for tax credits with the exception that the inverter within such systems is considered to carry a cost of \$2,500 for the purpose of calculating the tax credit.

Eligible installation and other costs:

Design and installation costs are eligible, but only those costs associated with the installation of eligible PV equipment can be credited. The cost (if any) of obtaining an easement necessary for the installation of a PV system is also eligible.

Reasonable Cost Limitation:

Under Utah Code, taxpayers are entitled to established percentages of the reasonable cost of renewable energy systems. USEP is authorized to make a determination of reasonable costs and to limit tax credits based upon that finding. Based upon research and consultation with members of the solar PV industry, USEP has determined that the eligible costs of a grid-connected PV system are reasonable when they are not more than \$10 per watt of installed capacity. For systems not connected to the grid (and requiring batteries), reasonable costs are capped at \$13 per watt.

To calculate your reasonable cost limitation, multiply the total installed capacity of your system (entered above on Form PV) by \$10 if your system is grid-connected or within ¼ mile of a utility's power lines, or by \$13 if your system is not grid connected and more than ¼ mile from a utility line.

Enter amount of credit claimed for the PV system:

For a residential system:

Step 1 – Begin by comparing your total eligible costs to the reasonable cost limitation above. If the cost of your system exceeds the limitation, use the reasonable cost limitation amount to go to Step 2. If your total eligible costs are less than or equal to the

reasonable cost limitation, use your total eligible costs amount for Step 2.

Step 2 - If you received a refund or rebate for your system, subtract that amount from the amount from Step 1. Do not subtract the value of any federal tax credits you have received or may claim. (Note: Any refunds and rebates should be listed on Form A.)

Step 3 - Multiply the amount from Step 2 by 0.25.

Step 4 - If the amount from Step 3 is less than \$2,000, enter that amount on Form PV for your credit amount. If the amount from Step 3 is \$2,000 or higher, enter \$2,000 for your credit amount.

For a commercial system:

Step 1 – Begin by comparing your total eligible costs to the reasonable cost limitation above. If the cost of your system exceeds the limitation, use the reasonable cost limitation amount to go to Step 2. If your total eligible costs are less than or equal to the reasonable cost limitation, use your total eligible costs amount for Step 2.

Step 2 - If you received a refund or rebate for your system, subtract that amount from the amount from Step 1. Do not subtract the value of any federal tax credits you have received or may claim. (Note: Any refunds and rebates should be listed on Form A.)

Step 3 - Multiply the amount from Step 2 by 0.10.

Step 4 - If the amount from Step 3 is less than \$50,000, enter that amount on Form PV for your credit amount. If the amount from Step 3 is \$50,000 or higher, enter \$50,000 for your credit amount.

Installer Information: Under the rules governing renewable energy tax credits, there is no requirement that the installer of a solar PV system be a licensed contractor, though USEP believes that in most cases it is advisable for systems to be installed by a licensed solar installer. If a licensed installer or contractor installed your system, be sure that he or she provides their information here. If you or another unlicensed individual installed the system, you must still provide information on that installer. In that case, leave “Contractor License Number” and “License Type” blank and complete all other sections, including a signature.

System Certification: Utah’s rules do not require that a solar PV system be installed by a licensed installer. However, in order to ensure the safety of all systems, the rules governing the renewable energy tax credit require that a PV system must be certified for safety by one of the following:

1. A Utah licensed electrical contractor,
2. A Utah licensed solar photovoltaic contractor,
3. A licensed contractor who has obtained written approval by the Utah Department of Occupational Licensing for the installation of solar PV systems, or
4. A county or municipal building inspector licensed by the State of Utah.

The system certification section must be completed and signed by a person in one of the four categories above in order for you to receive a tax credit for a PV system. This person may also be the installer if he/she has the required license.

System Documentation: Form A lists general documentation requirements that apply to all renewable energy systems. In addition to those requirements, documentation submitted for a PV system must also show that:

1. The PV system is located such that the modules are completely free of shade from trees and other plants, buildings, chimneys, vent pipes, utility poles, and other objects that would reduce system output for at least two-thirds of the daylight hours at the site.
2. The PV system is positioned so as to optimize the average annual solar radiation values. Guidance for siting may be found at the the National Renewable Energy Laboratory's (NREL) National Solar Radiation Database (found at <http://rredc.nrel.gov/solar/pubs/redbook/PDFs/UT.PDF>).
3. The PV system is positioned such that a fixed solar array azimuth shall be oriented within: a. 165 degrees and 225 degrees if the fixed pitch is greater than 30 degrees from horizontal, or b. 165 degrees and 270 degrees if the fixed pitch is 30 degrees or less from horizontal.