

PE4 Action: Solar Energy Installation

9 Points

14 Points

17 Points

20 Points

A. Why is this action important?

By displacing energy from fossil fuel sources, the use of solar energy reduces air pollution and greenhouse gas (GHG) emissions. Solar photovoltaic (PV) panels transform solar radiation into electricity and are appropriate for many types of public facilities, including schools and public buildings. Solar hot water systems (also known as solar thermal systems) use roof-mounted solar collectors that rely on the sun's energy to produce hot water in buildings. When local governments install solar technologies, they increase the demand for renewable energy and set a positive example for residents and businesses in the community.

B. How to implement this action

The first step is to perform a feasibility study and determine if solar hot water or solar photovoltaic technology is suitable for the local government and for the possible siting locations. Such assessments may be part of [PE4 Action: Renewable Energy Feasibility Studies](#).

If the study determines that solar technology is feasible, then the next step is to confirm the location on a new or existing public building or public property. Many local governments elect to install the solar technology on top of city hall or a similar prominent public building, to demonstrate to the public the government's commitment to energy conservation. Local governments should select and work with a NYSERDA approved contractor who can assist in determining the size of the system and how it will interact with the grid, particularly if the installation will produce a surplus of electricity for the building.

Consult the [NYSERDA NY-Sun Solar Guidebook for Local Governments](#) for guidance. If you have a question or need help with a chapter of the Guidebook, contact solarhelp@nyserda.ny.gov.

Local governments will want to analyze the costs and payback periods for such an installation and consider the co-benefits of the system, such as how it can be used as an example for other projects in the community. Maintenance, operation, public trust requirements and insurance should also be taken into consideration when developing and designing a solar system.

Local governments are advised to consult their municipal attorneys to ensure that all issues related to this use on public lands, including effects on resources held in the public trust are resolved.

Points for Climate Smart Communities (CSC) action are awarded for installing solar technology at new or existing facilities owned by the local government. As long as the system is currently in use, the installation may have been completed at any time to be eligible for points.

In addition, for each installation, local governments must display signage describing the installation and must announce the installation(s) to help build awareness in the community of the benefits of solar technology. The signage can be a simple, low-cost poster that describes the technology and informs visitors to the facility that it utilizes that technology. At minimum, a press release announcing the installation must be issued as part of the effort to educate the community about the local government's investment in renewable energy.

C. Time frame, project costs, and resource needs

The time frame, project costs, and resource needs depend on whether the solar hot water or PV technology is implemented in a new or existing facility, and the size or output of the system.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government that owns and operates buildings. Environmental departments, or departments of engineering, facilities, or public works would likely implement this action.

E. How to obtain points for this action

Points for this action are tiered based on the nameplate capacity of solar installation(s) at facilities owned by the local government and implemented in a manner consistent with the requirements described above. Nameplate (or peak) capacity is the official power production rating given to the equipment. It is typically measured in a kilowatt (kW) rating.

	POSSIBLE POINTS
Installation(s) totaling 1 to 24.9 kW	9
Installation(s) totaling 25 to 99.9 kW	14
Installation(s) totaling 100 to 199.9 kW	17
Installation(s) totaling 200 kW or more	20

F. What to submit

Submit a brief description of the solar installation(s), including nameplate capacity in kW, location, installation date, specification or purchase documents, and, if available, estimates of energy savings. Provide evidence that a qualified installer was employed. Show that the installation is actively in use at the time of application.

For each installation, also submit one photograph of posted educational signage and a description of activities announcing the installation for public education.

All CSC action documentation is available for public viewing after an action is approved. Action submittals should not include any information or documents that are not intended to be viewed by the public.

G. Links to additional resources or best practices

- [NYSERDA NY-Sun Solar Guidebook for Local Governments](#)
- [NYSERDA NY-Sun program](#)
- [NYSERDA Solar Hot Water \(Thermal\) System Installers](#)
- [US DOE Solar Water Heaters](#)
- [US DOE SunShot Initiative](#)
- [National Renewable Energy Laboratory US Department of Energy NREL Solar Research](#)
- [American Solar Energy Society](#)
- [Solar Electric Power Association](#)
- [NREL, State & Local Governments, State Solar Technical Assistance](#)
- [US EPA On-Site Renewable Energy Generation](#)
- [Western City, 10 Questions to Ask Before Installing Solar Power on Agency Facilities](#)

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.