



**ACEP**  
Alaska Center for Energy and Power

Thanks for taking the time to complete this survey about your solar photovoltaic system. This survey was compiled by the Alaska Center for Energy and Power (ACEP). ACEP is an applied energy research center based at the University of Alaska Fairbanks. Our mission is to develop and disseminate practical, cost effective, and innovative energy solutions for Alaska. Over the last decade, solar photovoltaic technology has undergone significant developments which have led to dramatic drops in costs. The technology has been widely adopted in the lower 48 and its utilization continues to grow. In Alaska, the adoption of solar has been slower, but is gaining momentum.

Challenging logistics, a harsh climate, and the perception that Alaska lacks an adequate solar resource have slowed the adoption of solar power in Alaska. As the technology continues to improve, and costs continue to come down, ACEP is trying to learn more about the systems that have been installed on homes and businesses around the state to learn more about the actual installed costs of these systems, the system energy production, areas where the installation process could be streamlined, and the future role the technology could play in the state's energy infrastructure. Up until this point, we are not aware of any statewide effort to gather data about installed systems. Our ultimate goal is to look for ways to improve solar energy harvesting in Alaska and find areas where costs can be reduced. Thanks for your participation in our efforts.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris".

Chris Pike  
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A handwritten signature in black ink, appearing to read "Erin".

Erin Whitney  
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## Alaska Solar Installation Questionnaire

Contact person and system owner (homeowner or building manager): \_\_\_\_\_

Village/Town: \_\_\_\_\_

Latitude and Longitude or Street Address: \_\_\_\_\_

Installation Date (when did the system begin production): \_\_\_\_\_

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

Rated size of installation (ie., 10 kW): \_\_\_\_\_

Building description and type of building that the system is installed on (Home, commercial, government):  
\_\_\_\_\_

Is the building eligible for PCE: Yes  No

Array Orientation:

Azimuth: \_\_\_\_\_

Tilt: \_\_\_\_\_

Are the panels manually adjustable? Yes  No

If yes, are they adjusted? Yes  No

How often? \_\_\_\_\_

Is a tracking system installed? Yes  No

If yes: 1 axis  2 axis

What brand and model is the tracking system? \_\_\_\_\_

Have there been any problems with the tracker? Yes  No

If yes, explain: \_\_\_\_\_

**Module Brand and Model:** \_\_\_\_\_

**Inverter Type:** Central inverter  Micro inverter

Inverter brand and model: \_\_\_\_\_

Have there been any problems with the inverter(s)? Yes  No

If yes, explain: \_\_\_\_\_

**Racking:**

Ground mounted  Roof mounted

Brand and model of racking. If custom, who manufactured the racking?

\_\_\_\_\_

Description: (ie., pole mounted, custom racking mounted on round water tanks etc.)

\_\_\_\_\_

If roof mounted, what is the roof type: \_\_\_\_\_

**Does the system have online data monitoring:** Yes  No

If Yes, can ACEP have permission to use the data in our research and data compilation efforts? Yes  No

If yes, please list your contact email: \_\_\_\_\_

**Is the PV system grid tied?**

Yes  No

What is your local electric utility? \_\_\_\_\_

**Does the system have battery storage?**

Yes  No

If Yes, what is the size of the battery bank in nominal voltage and Ah, type of batteries, and age?

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**What was the total system cost** (including labor and all materials and equipment)?

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**Cost breakdown** (either as dollars or as percentage of total cost):

Panels: \_\_\_\_\_

Inverter: \_\_\_\_\_

Racking/ Support structure: \_\_\_\_\_

Hardware (wire, disconnects, grounding etc.): \_\_\_\_\_

Labor: \_\_\_\_\_

Permitting and interconnection costs: \_\_\_\_\_

Shipping/Transportation: \_\_\_\_\_

**If in an off-road community, how was the equipment shipped to the location** ( ie., Barge, air, etc.):

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**Why did you decide on the specific components and system design?**

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**How was installation paid for?** (Owner funding, grant funds, loans, private investment)

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Were tax credits collected? Yes  No

If no, why not: \_\_\_\_\_

**If this is a grid tied system, did you coordinate installation with your local power utility?**

Yes  No

**Did the utility provide guidance and assistance? If so how?** \_\_\_\_\_

\_\_\_\_\_

**Does the utility have any installation requirements?** \_\_\_\_\_

\_\_\_\_\_

**What were the steps to interconnect with the grid?** \_\_\_\_\_

\_\_\_\_\_

**In your opinion, was this a smooth and straightforward process:** Yes  No

Please describe: \_\_\_\_\_

\_\_\_\_\_

**Did you notice a reduction in your electric bill?** Yes  No

**What time of the year does production seem to be the highest?** \_\_\_\_\_

**How much time do you spend on maintenance of the PV system per month** (Cleaning, clearing snow, adjusting tilt, etc)? \_\_\_\_\_

**How much money do you spend on maintenance each year?** \_\_\_\_\_

**Does the system generate as much electricity as you expected? Please explain:** \_\_\_\_\_

\_\_\_\_\_

**Do you have any other renewable energy systems besides PV?** \_\_\_\_\_

If no, why did you choose to install a PV system over other systems? If this augments any current systems, why did you choose PV to add to your system? \_\_\_\_\_

\_\_\_\_\_

**Please share any other comments:**

**\*\*If possible, please include a photo of the installation and your contact information\*\***

**Thanks for taking the time to complete this survey. Please return the completed survey to Chris Pike: [cpike6@alaska.edu](mailto:cpike6@alaska.edu) or Erin Whitney: [erin.whitney@alaska.edu](mailto:erin.whitney@alaska.edu). Please don't hesitate to contact us with additional questions or comments.**