



## Solar\*Rewards® Frequently Asked Questions

### System Size and Customer Usage

1. [Is the customer eligible to participate in the Solar\\*Rewards program?](#)
2. [What size system should they get?](#)
3. [What is the limit for a system size in relation to customer usage?](#)
4. [They recently purchased an electric vehicle \(EV\); can I size the PV array to include this?](#)
5. [Can shading be considered in the 120% Rule calculation?](#)
6. [How can I obtain access to bill history or data usage information for an account?](#)
7. [What is the limit for a system size for new construction?](#)
8. [What is required for proof of square footage?](#)
9. [How can I calculate the PVWatts estimated annual output of an array that is smaller than .5 kW?](#)
10. [When is a HERS report or Energy Load Analysis needed? What are the requirements?](#)

### Application Process

11. [Can I submit an application if the customer only has a temporary meter?](#)
12. [What is the Application Deposit?](#)
13. [Can I drop off the Application Deposit to the Xcel Energy offices?](#)
14. [What is the Interconnection Study Fee?](#)
15. [What is the NABCEP Form and why is it required?](#)
16. [Can I change the size of the system during the application process?](#)
17. [Can I change the equipment/hardware during the application process?](#)
18. [How long do I have to complete the installation?](#)
19. [Can I apply for an extension?](#)

### Program Rules and Requirements

20. [Can I install PV on a building's roof and back feed another separately metered building?](#)
21. [Can the customer build a solar farm and sell the energy back to Xcel Energy?](#)
22. [Is there a list of equipment that is eligible through the Solar\\*Rewards program?](#)
23. [Why does Xcel Energy need proof of insurance?](#)
24. [Why does Xcel Energy need to be listed as additionally insured?](#)
25. [Can the customer move the solar system to a different address if they move or buy another home?](#)
26. [The roof requires repair/maintenance. What steps need to be taken?](#)
27. [The customer purchased a home \(or lot\) that is currently being built. They are also purchasing a solar system that will be installed on the new home. They do not have an Xcel Energy account yet, how can I apply for Solar\\*Rewards?](#)
28. [What is the definition of a contiguous site and how is it relevant to Solar\\*Rewards?](#)
29. [Can I install a PV system outside of the Solar\\*Rewards program?](#)
30. [Do you provide data on participation in the Solar\\*Rewards program?](#)
31. [How do I submit a battery with my solar application?](#)
32. [Is there an option to have the solar system located at one site but offset the generation at another site?](#)
33. [What is the Power Factor Rating Requirement?](#)

### Metering and Billing

34. [Why is an AC Disconnect required?](#)
35. [Can the customer participate in Solar\\*Rewards if they are on a special rate plan \(Time of Use Pricing, Peak Demand Pricing, etc.\)?](#)

## System Size and Customer Usage

### 1. Is the customer eligible to participate in the Solar\*Rewards program?

Please review the [Candidate Checklist](#) in order to determine eligibility. Mobile homes are not eligible to participate in the Solar\*Rewards Program.

### 2. What size system should they get?

The size is a tradeoff between the amount of money they want to invest and the amount of electricity they want to produce. A fairly large home during peak electricity usage in the summer uses up to 5 kW of electricity at any given moment. Over a year, that same home will use approximately 12,000 kWh of electricity. You can look at past bills to calculate how much electricity the home typically uses and determine what percentage they want to cover with solar electricity.

The amount of suitable space available on the roof is also something to consider. To be suitable, it must be unobstructed and not shaded, either flat or sloped, at an orientation other than north. You need roughly 120 square feet of roof space for each kilowatt of PV capacity you wish to install.

### 3. What is the limit for a system size in relation to customer usage?

When it comes to designing a PV system for any residential or commercial system, the 120% rule is used to determine the limit to how much a building or structure can hold or how much energy the site's service can handle. This rule is meant to calculate how many amps can be backfed through the load side of the site's existing service equipment with a measure of safety.

### 4. They recently purchased an electric vehicle (EV); can I size the PV array to include this?

Yes, new electric vehicle purchases follow a similar process as new construction with atypical loads. Based on average electric vehicle energy usage identified in [The EV Project](#), up to 250 kWh per month can be added to the average historical load. Here's how it works:

*If they have less than 4 months of consumption history that includes EV load:*

We will add 250 kWh per month to the consumption history when calculating the 120% rule. This consideration will allow installers to size systems based on the future EV consumption when premise historical data is absent.

*If they have at least 4 months of consumption history that includes EV load:*

We will not make any additions to the consumption when calculating the 120% rule.

When submitting your application, you are required to provide a copy of the vehicle registration showing the registration address, which corresponds with the install address, as well as confirmation of the EV purchase date. If the EV is not in possession yet, proof of purchase is acceptable in place of the vehicle registration.

### 5. Can shading be considered in the 120% Rule calculation?

No, shading is not permitted to be accounted for in the 120% Rule calculation for the following reasons:

- No administratively consistent process to calculate and verify shading effects for individual projects, and
- Shade effects are not permanent — trees can be removed and shading varies over time — which jeopardizes the customer's consistency with the 120% Rule.

If the site cannot provide the customer with the desired amount of solar generation due to shading, consider other renewable programs to pair with on-site generation such as [Community-based Solar](#) or [Windsource](#).

### 6. How can I obtain access to bill history or data usage information for an account?

The following are three ways that a customer or installer can make a data request:

Xcel Energy customers can obtain billing and consumption information directly by calling 800.895.4999 and speaking with one of our customer service representatives.

Xcel Energy residential customers can sign up at no cost for [My Account](#) access to view and download up to two years of consumption history for their home.

Solar installers may request data for a customer by completing the [Data Consent Form](#). Submit the request, and the completed and signed form to Xcel Energy at [datarequest@xcelenergy.com](mailto:datarequest@xcelenergy.com).

### 7. What is the limit for a system size for new construction?

If the building is new construction, we will use the data we have to determine if the kW system is appropriate for the site. You can use the [New Homes Usage](#) Table to determine the appropriate system size for the home or business. Please note that proof of conditioned square footage is required.

The new construction table is designed to provide an estimate of a home's annual electricity use based on square footage. This is necessary to insure we are in compliance with the regulation that states PV systems can only provide up to 120% of a home's annual energy use. The table is based on survey results of average electricity use for homes within the square footage parameters listed. If the home in question is larger than typical, we do not have any good data on how much energy it may consume in a year. The only way we can properly size a system is if we are provided with load calculations for the home such as an energy model from Xcel Energy Design Assistance Program. Another way to go about this might be to start at our 4,000 sq. ft. large end and add whatever "extra" loads may be in the house. For example, if the home has a pool/hot-tub a pump load could be added. If it has multiple refrigerators or a/c units those loads could be added. The builder will have to provide this type of information to us.

#### **8. What is required for proof of square footage?**

As proof of square footage for new construction, we require either a blueprint or floor plan. The document must clearly indicate the total livable square footage and address, and must be uploaded at the time of application submission. As proof of square footage for buildings that are not new construction, we require one of these options, or a printout of the property record from the City & County Assessor's Office. Square footage documents from Zillow, Realtor.com, etc. will not be accepted.

#### **9. How can I calculate the PVWatts estimated annual output of an array that is smaller than .5 kW?**

Please follow the instructions provided by PVWatts in the FAQs on their [website](#). They are as follows: "Note that the relation of system output to the system size is linear. To run a PV system smaller than the allowed lower limit of PVWatts, run PVWatts using a system size that is some multiple larger than your desired system size; e.g., 10 or 100 times larger. Then divide the estimated electricity produced by this same multiplier."

#### **10. When is a HERS report or Energy Load Analysis needed? What are the requirements?**

A HERS report is needed whenever the system size for a residential home is above 10.23 kW or 4,000 square feet. The HERS report must show the annual kWh breakdown for the residence, the premise address, and the contact information for the person who performed the rating.

An Energy Load Analysis is needed when the usage at the premise does not justify the system size or if the usage is less than 4 months. The Energy Load Analysis must be signed and stamped by a Professional Engineer (PE). The premise address and annual kWh must be shown as well.

### **Application Process**

#### **11. Can I submit an application if the customer only has a temporary meter?**

The customer needs to have a permanent account, premise and meter set up in order to submit a new application. The customer should contact Customer Service at 800.895.4999 to check if there is a permanent account set up. If there is not, the customer must contact the Builders Call Line at 800.628.2121 to set one up. We will not accept applications with 0's or 1's entered for the account or premise or with "unit temp" listed on the account.

#### **12. What is the Application Deposit?**

The Application Deposit is designed to promote the submission of project applications which have a very high probability of being completed. The application deposit will be refunded to the provider if the application is completed within 12 months from the date of application's incentive was set.

Application deposits are required to be postmarked within seven business days of the create date of the application. If we do not have receipt of the application postmark date complying with this rule, the application will be cancelled and reapplying to the program will be required.

**Online payments are now available in the application portal in the Documents and Payments stage. To complete your payment online with Wells Fargo, please enter the Primary Authorization Code and Secondary Authorization Code which is unique to your account. This information can be found on the Documents & Payments tab under 'Payments'.**

#### **13. Can I drop off the Application Deposit to the Xcel Energy offices?**

No. We will not accept deposits, or any other Solar\*Rewards documents, that are hand delivered to our offices or mailroom. A deposit form must be completed and mailed with the payment. The deposit form can be found here. Also please remember that we require an individual check for each application. **Online payments are now available in the application portal on the Documents and Payments stage. See [FAQ #12](#) for additional details for online payments.**

#### 14. What is the Interconnection Study Fee?

This is a standard fee that we collect for all Solar\*Rewards applications. The collected payment goes directly toward the cost of reviewing the associated engineering documents for approval. We collect this fee prior to the engineering review stage of the application process. The fee is set as follows, per the [Interconnection Guidelines](#):

Level 1: \$100 (systems  $\leq$  10 kW)

Level 2: \$1,000 (systems >10-250 kW) OR \$2,000 (systems >250 kW-2 MW)

#### 15. What is the NABCEP Form and why is it required?

Colorado law requires that PV systems installed after January 1, 2012, have a certain level of personnel, certified by the North American Board of Certified Energy Practitioner (NABCEP), involved in order for systems to receive incentives. Xcel Energy is required to collect and retain documentation that those levels were met. To accomplish this, we require a Photovoltaic Installation Supervision Certification form as part of our application process. The form is downloaded from the online application website and required in order to move forward in the process.

#### 16. Can I change the size of the system during the application process?

You may make changes to the PV system specifications only before the "Retrieve Documents" button has been selected in the Final Information tab, generating the contractual Documents to Sign. At this point in the process, you will be confirming your system information and will no longer have the option to make changes. Acceptable system changes prior to retrieving documents are restricted to +/- 10% of the original estimated array capacity entered on the Start tab of the solar application. If a system changes by more than +/- 10%, the application will be cancelled and the application deposit will be forfeited to the RESA. The system change cannot exceed 120% of consumption and must stay within the applied for program size limits.

When a system size changes, we will review the 120% of consumption rule a second time. We will use the previous 12 months of consumption from the create date of the application. If the system exceeds the 120% rule you will forfeit your deposit and no meter will be installed until we are certain that

the system size does not go over 120% of consumption. If the system size does not change before retrieving documents, we will not review the 120% rule again.

#### 17. Can I change the equipment/hardware during the application process?

Yes, you can change the equipment/hardware during the process. You will need to upload a new Site Plan and Line Diagram prior to the application moving into Engineering Review. If the changes are made after Engineering Review approval, a second Study Fee may be required for the additional review.

#### 18. How long do I have to complete the installation?

Applications are valid for 365 days from the date of application submission. An application is complete when the final REC Contract is uploaded. At the first of each month we will cancel any applications that have expired (exceeded the 12 month window). The deposits will be forfeited to the RESA.

#### 19. Can I apply for an extension?

Our standard policy allows for a one-time extension of 60 calendar days on the 1 year window. A project extension will be considered under the following conditions only:

- The application is within 60 calendar days of the expiration date
- The request is made at least 2 weeks prior to the project expiration date
- Engineering review has been completed and the application is at the Final Documentation stage

You will need to complete an Extension Request form which can be found [here](#). Your request will be reviewed by the Solar\*Rewards team. Once reviewed, we will reply via email to your request. We reserve the right to deny an extension request, and to change our extension policy at any time if it is no longer in line with program objectives. At the end of the 60 day extension period you are required to have the project completed, which means the application must have all required documents executed for the Final Documentation stage, including the signed REC Contract.

## Program Rules and Requirements

### 20. Can I install PV on a building's roof and back feed another separately metered building?

For Roof Mounted Arrays:

PV systems shall be interconnected to the meter that serves the building or structure in which the arrays are located. If there are multiple meters serving a single building or structure, the PV system shall be interconnected to the meter that serves the portion of the building in which the arrays are located. No intermingling of systems and premises will be permitted.

For Ground Mounted Arrays:

PV systems shall be interconnected to a meter on the same parcel/property in which the array is located. If there are multiple meters on a single parcel/property, multiple systems may be installed, provided the entirety of the PV system is located on the same parcel/property that the meters serve. No intermingling of systems and premises will be permitted.

### 21. Can the customer build a solar farm and sell the energy back to Xcel Energy?

Solar farms are considered a form of central solar. Currently these types of projects are considered under the Company's All-Source RFP, and not through the Solar\*Rewards program. We do offer the Solar\*Rewards Community program. Learn more on our [website](#) or email [solarrewardscommunity@xcelenergy.com](mailto:solarrewardscommunity@xcelenergy.com).

### 22. Is there a list of equipment that is eligible through the Solar\*Rewards program?

The list of eligible equipment that we use is [Go Solar California](#). If you plan to use non-UL listed modules you will need to have them approved through our metering and engineering department. Please fill out an exception form from the [Standard for Electric Installation and Use - Xcel Energy](#) manual.

### 23. Why does Xcel Energy need proof of insurance?

We ask for proof of insurance for the financial protection of both the customer and Xcel Energy. This requirement protects both parties if anyone were to get hurt while working on the meter, whether it is an Xcel employee, neighbor, firefighter, or other individual. Having a solar install on your home makes you liable if someone were to get hurt while working on your meter. For systems owned by a third party developer, the insurance should be in the developer's name.

### 24. Why does Xcel Energy need to be listed as additionally insured?

For commercial properties and/or installs that are 250kW or larger, we require that Xcel Energy be listed as additionally insured because Colorado is a shared liability state where multiple parties can be determined to be "guilty." Also, since energy is flowing through the meter from both the customer and Xcel, both parties can be held liable if an incident were to occur. This also ensures that we are notified if a policy is changed or canceled.

### 25. Can the customer move the solar system to a different address if they move or buy another home?

We do allow PV systems to be moved from one premise to another however they will no longer be eligible for the Solar\*Rewards program and your Solar Bank will not be carried over to a new address.

The original Solar\*Rewards contract will be void and you will need to reapply to the non-incentivized DG solar program under the new address. Please contact [solarprogram@xcelenergy.com](mailto:solarprogram@xcelenergy.com) to let them know the system is being relocated.

### 26. The roof requires repair/maintenance. What steps need to be taken?

In circumstances where the PV system needs to be removed for roof repair/replacement, the solar installer can remove the system for up to 90 days. The customer must notify Xcel Energy, in writing, of any plans to remove the system temporarily at least 20 business days prior to removal of the system. Once the system is ready to be installed again, the customer must notify Xcel Energy in writing a minimum of five business days prior to the re-installation. Xcel Energy will have up to 10 business days to review and respond.

The meters need to remain onsite during this time and should not be removed from the premise for any reason. A new electrical inspection may be required prior to turning the system on again.

### 27. The customer purchased a home (or lot) that is currently being built. They are also purchasing a solar system that will be installed on the new home. They do not have an Xcel Energy account yet, how can I apply for Solar\*Rewards?

New construction applications with a temporary meter servicing the location MUST have a permanent account

number and premise number. Please apply under the homeowner/end-user's name and the address of the solar system install (new home). Please note that we also need a Final Electrical inspection, as well as proof of insurance, which must be in the homeowner's name. Please see [FAQ #11](#) for additional details on temporary meters.

### 28. What is the definition of a contiguous site and how is it relevant to Solar\*Rewards?

For projects that will be installing solar or other alternative electrical energy-producing improvements on multiple structures on a property or consumer's site, the maximum system size that will be incentivized under the Solar\*Rewards program is 500kW. This applies to any capital improvements to existing SINGLE-FAMILY residential, MULTI-FAMILY RESIDENTIAL, commercial, or industrial structures, or other structures on contiguous property under common ownership. An on-site solar system shall be sized to supply no more than 120% of the average annual consumption of electricity by the consumer at that site. The consumer's site includes all contiguous property owned or leased by the consumer.

### 29. Can I install a PV system outside of the Solar\*Rewards program?

There is an option to get the system interconnected without applying for a Solar\*Rewards application, please visit our [Net Metering](#) site for information.

### 30. Do you provide data on participation in the Solar\*Rewards program?

Our monthly program participation data is submitted to and published by the Colorado Public Utilities Commission. The information is filed with the Commission in Proceeding 06S-016E (RESA Suspension) and is available on the Commission's website. The data is available to the public.

### 31. How do I submit a battery with my solar application?

Please select the "Battery Backup" checkbox on the System Details stage of the application. This will prompt additional information to be gathered as part of the application for review by engineering. You will need to select a specific battery configuration that the planned PV system + battery complies with. The eight battery configurations accepted are the following:

AC, Standby Energy Storage 1A  
 AC, Non-Net Metered, Non-Export 1B  
 AC, Non-Net Metered, Non-Export W/Gen 1C

AC, Net Metered, Standby Energy Storage 2A  
 AC, Net Metered, 100% Renewable Export 2B  
 AC, Net Metered, Non-Export 2C  
 DC, Net Metered, 100% Renewable Export 3A  
 DC, Net Metered, 100% Renewable Export 3B

View the Storage Guidance documents on the Renewable Developer Resources webpage under Program Info towards the bottom of the page.

### 32. Is there an option to have the solar system located at one site but offset the generation at another site?

Please read the Colorado Code of Regulations, Net Metering Information, Rule 3664 (Go to page 130) - [https://www.xcelenergy.com/staticfiles/xcel/Corporate/Corporate%20PDFs/CO\\_StateRules.pdf](https://www.xcelenergy.com/staticfiles/xcel/Corporate/Corporate%20PDFs/CO_StateRules.pdf). The customer/installer will need to show how they comply with the rule before any net metering aggregation is approved.

### 33. What is the Power Factor Rating Requirement?

This requirement is based on section 3.3 of the Feb 1st, 2017 revised interconnection guidelines. These interconnection guidelines now require all new interconnections have the ability to operate at -0.98 leading power factor as a default requirement. Systems are required to have ability to operate between -0.90 and +0.90. Applicants may need to upsize inverters as the power factor settings could impact real power output based on panel ratings. This information should be listed on the one-line diagrams for all systems.

The requirement is enforced per below:

- Individual applications under 25kW will be waved from complying with the requirement until January 1st, 2018 only if the following is true:
  - Equipment was purchased before the 8/17 Installer Update announcement by the SolarProgram, AND
  - Equipment cannot operate in the required modes
- Applications over 25kW may require a Level II review
- Solar Installer is highly encouraged to provide upfront notification (before starting applications) to SolarProgram@xcelenergy.com if a new housing development includes more than 10 homes or 100 kW on a distribution feeder.

## Metering and Billing

### 34. Why is an AC Disconnect required?

Xcel Energy requires an AC disconnect on photovoltaic installations for a variety of reasons. Number one is safety. Without a disconnect to isolate the PV source from the production meter our meter personnel have found that when performing wiring checks on the production meter sockets they see what appears to be a phase to phase short. In most cases this is due to the inverter design, but it could also be a wiring error that would be safety concern. Xcel Energy reserves the right to shut off any distributed generation that is causing system issues or is found to be not in compliance with our standards and program requirements.

If the PV systems is to be shut off for an extended period of time for system maintenance or any other reason, we prefer that the disconnect is located between the inverter and the production meter is opened so that the production meter remains energized. When a meter is de-energized for two billing cycles our system automatically generates investigate orders to find out why the meter is not reporting reads. This creates additional work for our already understaffed meter department.

### 35. Can the customer participate in Solar\*Rewards if they are on a special rate plan (Time of Use Pricing, Peak Demand Pricing, etc.)?

We offer these two new rate plans to all residential customers- including those with rooftop solar. You can [find out more here](#).