INFORMATION SHEET
COLORADO

# Solar*Rewards® Metering and Billing FAQs

If you have a photovoltaic (pv) system installed on or near your home and you have questions about your energy bills, you're not alone. To help boost your solar billing knowledge, we've put together the following FAQs.

## How do you measure the energy I use?

When you use the sun's power to generate electricity, the amount you produce and use varies throughout the year. In some months, you may produce more than you need, so there's energy left over. And other months, you'll use more energy than you produce. We use net and production meters to keep track of this give and take.

The **net meter** moves forward when electricity flows from our grid into your home or business, and backward when electricity flows from your PV system onto our grid. This bi-directional energy flow measures and distinguishes kilowatt-hours (kWh) being taken from the grid (used) and being put on the grid (produced).

We read this information on a monthly basis:

- If you produce more electricity than you use, you're considered a "net producer" and you won't be billed for any kWh during that billing cycle. Any excess kWh are stored in your Solar Bank for future use. (Refer to Solar Bank information on page two.)
- If you use more than you produce, you'll be billed for the difference (net kWh).

The **production meter** is a standard meter that's set up for payment of Renewable Energy Credits (RECs) rather than for billing. It's used to calculate your monthly REC payments.

| NET METERING EXAMPLE | | | |
|---|---|---|---|
| **NET USER** | | **NET PRODUCER** | |
| Uses from grid | 1,000 kWh | Uses from grid | 200 kWh |
| Puts on grid | 100 kWh | Puts on grid | 300 kWh |
| Billed for | 900 kWh | Billed for | 0 kWh |
| **Solar Bank = 0 kWh** | | **Solar Bank = 100 kWh** | |



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## What's the Solar Bank and how do I use it?

If you're a net producer and your PV system produces more energy than you use, the excess kilowatt-hours are credited to your virtual Solar Bank. You can choose one of the following options for your Solar Bank credits.*

- **Continuous Rollover Credits**: Any excess generation from your net-metered PV system will be rolled over month-to-month, year-to-year and held in a Solar Bank. The credits will never expire, and will be used whenever your consumption from the grid exceeds your generation on the net meter. However, you cannot cash out your Solar Bank, and no credit will be given if you move or stop service. Credits cannot be transferred between Xcel Energy accounts or to a new homeowner if a customer moves.
- **Waive Your Decision**: You choose to waive the decision until a later date. By waiving your decision, you will default to year-end payout. Any excess generation from your net-metered PV system will be rolled over month-to-month and held in a Solar Bank. Xcel Energy will cash out your Solar Bank at the end of the year, and send you a check for the excess energy in the first quarter of the following year. We buy this excess energy at a rate called "average hourly incremental cost of energy" (AHIC) from the previous 12 months. By choosing to waive your decision, you can still make a one-time choice to move to Continuous Rollover Credits at any time during the life of your contract.

**How is AHIC determined?**
We use a sophisticated cost calculator to determine this amount, which also factors in the fuel associated with generation and any applicable economic purchase transaction costs.

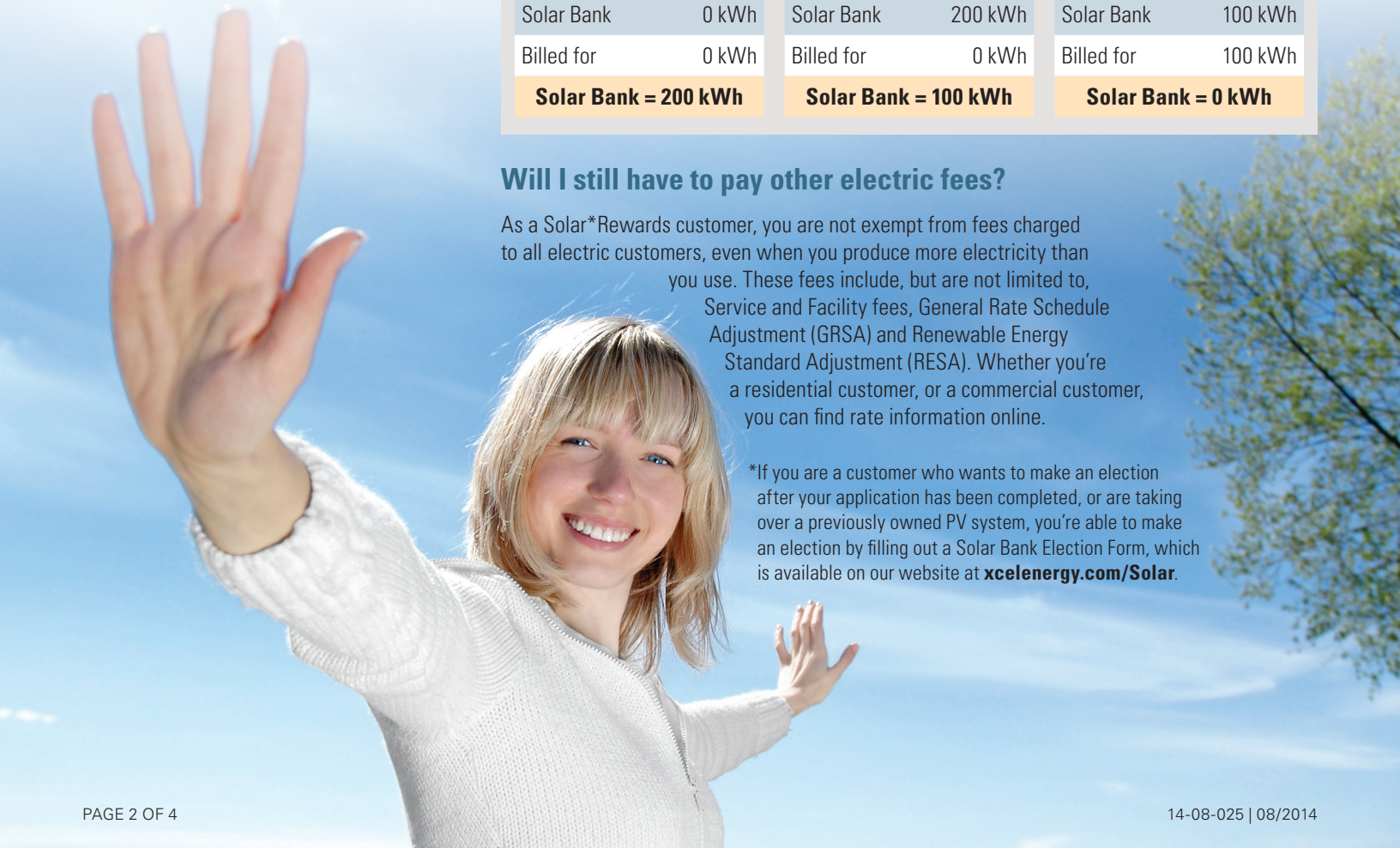
**SOLAR BANK EXAMPLES**

| MARCH | | APRIL | | MAY | |
|---|---|---|---|---|---|
| Uses from grid | 400 kWh | Uses from grid | 400 kWh | Uses from grid | 500 kWh |
| Puts on grid | 600 kWh | Puts on grid | 300 kWh | Puts on grid | 300 kWh |
| Net kWh | –200 kWh | Net kWh | 100 kWh | Net kWh | 200 kWh |
| Solar Bank | 0 kWh | Solar Bank | 200 kWh | Solar Bank | 100 kWh |
| Billed for | 0 kWh | Billed for | 0 kWh | Billed for | 100 kWh |
| **Solar Bank = 200 kWh** | | **Solar Bank = 100 kWh** | | **Solar Bank = 0 kWh** | |

## Will I still have to pay other electric fees?

As a Solar*Rewards customer, you are not exempt from fees charged to all electric customers, even when you produce more electricity than you use. These fees include, but are not limited to, Service and Facility fees, General Rate Schedule Adjustment (GRSA) and Renewable Energy Standard Adjustment (RESA). Whether you're a residential customer, or a commercial customer, you can find rate information online.

*If you are a customer who wants to make an election after your application has been completed, or are taking over a previously owned PV system, you're able to make an election by filling out a Solar Bank Election Form, which is available on our website at **xcelenergy.com/Solar**.



## How will my solar generation be reflected on my bill?

Here are a few sample bills for PV rate customers. Your bill will look similar to one of the following, based on your meter type.

- Xcel Energy installs two types* of net meters: standard net meters and Sentinel® net meters.
- If you have a production meter, you'll receive a separate bill, so you'll receive two bills each month.

For your reference, we've added labels to help explain the bill layout, what each row description means and how the numbers are calculated. (These references will not appear on your bill.)

### SENTINAL NET METER BILL:

**This meter is marked with a yellow label on its face that reads "NET/PV METER".**

| METER READING INFORMATION | | | |
|---|---|---|---|
| METER NUMBER : 0000000000 | Read Dates: 12/20/12 – 01/22/13 (33 Days) | | |
| DESCRIPTION | CURRENT READING | PREVIOUS READING | USAGE |
| Total Delivered by Xcel | 37376 Actual | 36403 Actual | 973 kWh |
| Total Delivered by Customer | 3187 Actual | 3148 Actual | 39 kWh |
| Net Delivered by Xcel | 934 Actual | Actual | 934 kWh |
| Net Generated by Customer | 0 Actual | Actual | 0 kWh |

**Please note:** One of these two readings will always be zero. If you're a net user, Net Generated by Customer will be zero, and if you're a net producer, Net Delivered by Xcel Energy will be zero.

This line shows the total energy you used–it's calculated by taking the amount of energy you used, and subtracting any excess energy you produced from your previous bill (your excess generation).

This line shows the amount of electricity your system delivered to the grid.

This line represents the actual kilowatt-hours that you're being billed for.

This line reflects what's in your Solar Bank and does not account for the net production or total production of your system. If excess generation is greater than your consumption in a single read cycle, the difference is shown here. In this case, the customer used more electricity from the grid than their system delivered, so the net is actually 0. If you had any credits stored in your Solar Bank from the previous billing cycles, those credits will be figured into this line as well.

### STANDARD NET METER BILL:

**This meter is marked with a red label on its face that reads "NET".**

| METER READING INFORMATION | | | |
|---|---|---|---|
| METER NUMBER : 0000000000 | Read Dates: 09/17/12 – 10/16/12 (29 Days) | | |
| DESCRIPTION | CURRENT READING | PREVIOUS READING | USAGE |
| Total Energy | 4411 Actual | 4132 Actual | 279 kWh |
| Net Delivered by Xcel | 279 Actual | Actual | 279 kWh |
| Net Generated by Customer | 0 Actual | Actual | 0 kWh |

**Please note:** One of these two readings will always be zero. If you're a net user, Net Generated by Customer will be zero, and if you're a net producer, Net Delivered by Xcel Energy will be zero.

This line shows the net of what you have used or produced – it's calculated by taking the amount of energy you used, and subtracting any excess energy you produced from your previous bill (your excess generation).

This line represents the actual kilowatt-hours that you're being billed for.

This line reflects what's in your Solar Bank and does not account for the net production or total production of your system. If excess generation is greater than your consumption in a single read cycle, the difference is shown here. In this case, the customer used more electricity from the grid than their system delivered, so the net is actually 0. If you had any credits stored in your Solar Bank from the previous billing cycles, those credits will be figured into this line as well.

*Meter type is not optional. The Xcel Energy metering department assigns meters based on amp rating and service voltage. Also, depending on when your system was installed, you may not have both a net and pv production meter.

## PRODUCTION METER BILL: CUSTOMER OWNED AND THIRD PARTY

| METER READING INFORMATION | | | |
|---|---|---|---|
| METER NUMBER : 0000000000 | Read Dates: 12/20/12 - 01/22/13 (33 Days) | | |
| DESCRIPTION | CURRENT READING | PREVIOUS READING | USAGE |
| Total Energy | 503 Actual | 146 Actual | 357 kWh |

### ELECTRICITY CHARGES

| DESCRIPTION | USAGE | UNIT | RATE | CHARGE |
|---|---|---|---|---|
| Sm Prgm Mnthly Rec Pmt | 357 | kWh | -$0.040000 | $14.28 **CR** |
| **Total** | | | | **-$14.28 CR** |

This line shows the total system production for the billing period.

Your REC payment credit is calculated by multiplying Total Energy Used in kilowatt-hours, by the REC price, which is dependent on the agreed contract price.

## How do I know how much energy my system produced? Is that reflected on the bill?

As a solar customer, of course you're interested in knowing how much total energy your system is producing. However, you won't find that information on your Xcel Energy bill.

Our net meter only measures energy that touches our grid (if we deliver energy to your home, or if you deliver energy to our system), so that we can track how much energy we need to bill you for, or how much we owe you. Unfortunately, if your PV system produces energy that's used by your home and doesn't ever make it to the grid, that isn't captured on your bill.

However, if you have both a Sentinel meter AND a production meter, you can calculate the amount of solar energy your home used up during a billing period.

1) Before you start, grab your net and production meter bills (be sure they cover the same billing period) and locate the "Meter Reading Information" tables on each one.
2) On your production meter bill, look in the "Usage" column and find the kWh amount shown. Write it down. (On the sample bill it's 357 kWh.)
3) Next, on your Sentinel meter bill, find the "Total Delivered by Customer" line, and then locate the number in the "Usage" column. Write it down. (On the sample bill, it's 39 kWh.)
4) Subtract the Step 3 amount from Step 2. The end calculation is the amount of solar energy in kWh your home used during that billing period that never touched the grid. (Example: 357 kWh – 39 kWh = 318 kWh)

*Important notes:
- If you have a standard net meter, you won't have the information needed for this calculation.
- The usage on the production bill will never match the usage of total delivered by customer, unless there was no generation of electricity at the home.

## Why isn't my system producing more energy? How do I know if my bill is accurate?

There are a variety of variables that can impact your PV production and your energy use. If you're concerned, you can always call us. But first, consider the following:

- **Check to see if your inverter, net meter and production meter are all working correctly.** Reach out to your installer to investigate if you believe there is a problem with the inverter they installed. If your installer checks your system and discovers that one of our meters isn't functioning as it should, call customer service and an Xcel Energy meter technician can visit your home to investigate the equipment and test the system's electric readings.
- **Think about other changes that may have increased your energy use.** Have you purchased a new electric vehicle or installed any electrical equipment, since receiving your last bill(s)? Do you have more people living in your home (for instance, a new child or a grandparent)? Has the weather fluctuated substantially (i.e. seasonal changes, extreme temperature swings)?
- **Is your system new?** Without at least a couple months worth of production and billing data, it can be difficult to tell if a system is producing as it should. If your system is new, we suggest monitoring it for a few more months to see if there is a significant increase or drop in production. That can help diagnose a potential problem.

If you need help understanding your actual bill, please call **1-800-895-4999** to speak with an energy expert, or send us an email at **solarprogram@xcelenergy.com**.