How it Works: Net Metering Program via Solar

Net Metering is a billing mechanism that allows San Luis Valley Rural Electric Cooperative (REC) members to selfgenerate electricity through renewable energy sources, such as a solar generating facility. This allows members to offset the energy portion of their electric bill. The program works with the rate tariffs to allow the REC to purchase energy from our members, for their own usage. This reduces the energy needed from Tri-State, our power supplier. **Note**: This program will apply to all renewable energy generating facility types (i.e., wind power, hydro, etc.).

Usage and Generation:

- When a member uses more electricity than what their solar facility generates, the member will use energy from the grid. This is measured by the Utility Meter (Bi-Directional meter that measures delivered and received energy).
- When the member's solar facility generates more than what the member uses, the over generation (the remaining energy) will flow back onto the grid and be measured by the same Utility Meter.
- REC's Net Metering Program provides retail rate compensation for over generation used during the year, meaning for every one kilowatt-hour (kWh) received by the grid, REC will offset 1 kWh at the rate that the member is assigned. This will apply to all rate schedules.
- Each month, REC calculates the difference between the member's generated energy delivered to REC and the member's energy usage measured at the Utility Meter. This net of received and delivered is the usage of the account and is used to calculate the member's monthly bill.



Banked kWh:

- When your solar facility generation is higher than your energy consumption at the utility meter, the extra, "over generated" energy (measured in kilowatt-hours (kWh)) are tracked in a kWh "BANK" at the end of each month. The excess (BANKED) kWh are then available to offset energy used in a future month. This number is provided on the monthly REC bill.
- When more electricity is used than what is generated in a future month, kWh in the bank will be used toward the energy usage. Once the kWh bank is empty, then the member will have to pay for any electricity used from the grid. This allows the member to maximize the energy offset on their bill.
- Annually in April, REC will pay out all kWh in the member's BANK (energy provided to the grid), resetting the bank to zero. This payment is calculated by multiplying the unused kWh by Tri-State's 12-month energy-only cost (the price at which REC buys energy), from the prior year. Tri-State's energy-only cost is a market-based

cost and may change from year to year. If a Net Meter member leaves the REC system, then the BANK is paid out immediately.

Production Meter:

The Production Meter is used only to monitor the generation of a solar facility. This is needed, by REC, to meet
the state renewable generation reporting requirements. This meter does not enter into the Net Meter billing or
BANKED kwh calculations. This meter is informational only and is not a way to monitor your "BANKED USAGE."
REC will provide this info to you for verifying your generation, if requested.

Weather Dependent:

- Renewable energy is greatly dependent on the weather, which means your solar facility may not produce its name plate output regularly. Expect your credit to change from month to month and season to season. Please keep in mind:
 - $\circ\,$ solar generation depends on the sun being present for the system to generate electricity. The sun is only present during the day and not during the night.
 - $\,\circ\,$ Cloud cover and stormy weather block out the sun's rays, yielding less generation.
 - Solar generation also depends on the angle of the sun. Solar generation typically operates at its peak (name plate output) when the sun is perpendicular to the solar panels, which occurs when the sun is at its highest peak during the day. The solar generation system gradually reaches this peak after the sun rises and gradually decreases from this peak when the sun sets.
 - The pitch of the solar panels affects the generation, as well. Depending on your location and how you
 install the facility (i.e., roof, gound mount, etc), the pitch of the solar panels will need to be adjusted to
 get the maximum output.
 - The time of year affects the solar generation output, as well. During the summer months, the days are longer, so there will be more generation. During the winter months, the days are shorter, and the sun does not rise as high as it does in summer, so there will be less generation.
 - $\,\circ\,$ Output typically reduces as equipment ages, panels become dirty or damaged, etc.
- REC encourages you to research the weather conditions for your solar facility in the area in which you live. This will help answer questions that may come up if there was less generation than expected. **Note:** REC will be able to investigate your data and history to help point out any changes that may have affected generation.
- Your solar equipment provider is the responsible party for explaining the energy calculations and output of the facility. As a member-owner of REC, we are happy to assist in explaining our program, calculations, initial system sizing, but final system sizing and output is between you and the solar facility provider.