



Clay Electric Co-operative, Inc.

A Touchstone Energy® Cooperative 

Memberside Generation and Your Cooperative

Your electric cooperative is your trusted energy partner. As you research what energy solutions best work for your personal power situation, it is our responsibility to help you find the best fit for your individual power profile. The purpose of this handout is to give you the best information on your cooperative's member generation rate structures and how memberside generation will affect you.

How Your Generation Is Measured

When you install memberside generation (solar panels, wind turbines, etc.) on your property the cooperative will replace your current electric meter with a meter that can read positive and negative usage. This meter can read when it 'spins backwards'. Let's look at some situations.



During an hour in the morning, your family is getting ready for the day. You're scrambling eggs on your electric stove and your spouse is running the hairdryer in the bathroom. In that hour you use 100 kW of electricity. It's early morning, there isn't a lot of sun shining on your solar panels. In that hour they produce 25 kW of electricity. For that hour, your meter will show you using 75 kw of electricity.

During an hour at midday, you are at work. Most of the lights are off, no one is home. Your refrigerator is still running, and the clocks still tick away. In that hour you only used 20 kW of electricity. It's midday so the sun is out in full force and your system is producing near max capacity. In that hour you produce 120 kW of electricity. For that hour, your meter will show you pushing 100 Kw of electricity back onto Clay Electric Cooperative's distribution system. (This shows up as a negative number in Clay Electric Cooperative's billing system)

Your meter keeps a running tally of how much the meter spins forward, your energy usage, and how much the meter spins backwards, the excess energy you produce and do not use yourself that goes back onto Clay Electric Cooperative's lines. Please note that we do **not** see your system's **total generation**. While your system likely can report its total generation to you, we only see your **net usage** and your **excess generation**.

How Your Bill is Calculated

As a member with memberside generation, your account is on Rate 151. Your bill has two parts. A facility charge that represents the installation and maintenance cost of Clay Electric Cooperative's system extending to your location and an energy charge that varies based on your usage. Your monthly facility charge is \$36. Your energy cost is 12.981¢ per kWh for the first 1,000 kWh and 9.221¢ per kWh for all energy usage over 1,000 kWh.

When bills are calculated, your cooperative checks the running tally of your electric meter for two numbers. A positive number that shows your **net usage** and a negative number that shows your **excess generation**. You are billed based on your net usage and a credit is issued based on your excess generation. The credit is calculated on our avoided energy cost, 3.63¢ per kWh, which is set by our power provider and represents the wholesale value of power. This is what we pay the powerplant for energy and we credit our members the same value for their excess generation.

Let's look at some example bills:

When bills are run, the meter shows a **net usage** of 1,250 kWh and **excess generation** of 750 kWh.

- Your facility charge is \$36.
- Your net usage is over 1,000 kWh so the first 1,000 kWh is billed at 12.981¢. (1,000 X \$.12981 = \$129.81)
- The remaining 250 kWh is billed at 9.221¢. (250 X \$.09221 = \$23.05)
- Your 750 kWh excess generation is credited at 3.63¢. (750 X \$.03630 = \$27.23)
- Your Tax is added and your total bill is \$165.63.

| Rate 151 Billing Calculation | |
|------------------------------|------------------|
| Facility Charge | \$ 36.00 |
| Energy Charge (0-1000 kWh) | \$ 129.81 |
| Energy Charge (1000+ kWh) | \$ 23.05 |
| Excess Generation Credit | \$ (27.23) |
| Tax | \$ 4.00 |
| Net Billing Total | \$ 165.63 |

When bills are run, the meter shows a **net usage** of 500 kWh and **excess generation** of 2,000 kWh.

- Your facility charge is \$36
- Your net usage is under 1,000 so your usage will be billed at 12.981¢. (500 X \$.12981 = \$64.91)
- Your 2,000 kWh excess generation is credited at 3.63¢. (2,000 X .03630 = \$72.60)
 - Your credit can only be applied to the energy portion of the bill. \$64.91 of credit will be applied this month and \$7.69 will be applied to your bank for use in following months.
- Your Tax is added and your total bill is \$37.60.

| Rate 151 Billing Calculation | |
|------------------------------|-----------------|
| Facility Charge | \$ 36.00 |
| Energy Charge (0-1000 kWh) | \$ 64.91 |
| Energy Charge (1000+ kWh) | \$ 0.00 |
| Excess Generation Credit | \$ (64.91) |
| Tax | \$ 1.60 |
| Net Billing Total | \$ 37.60 |

Frequently Asked Questions:

- What happens when I produce a larger credit than my energy charge?
 - Any excess credit is placed in a bank to be used later. This bank empties at the end of the calendar year with any remaining credits lost. It's important to size your system correctly.
- How big of a system can I install?
 - Clay Electric Cooperative can serve memberside generation systems under 40 kW AC. The best value for our membership is to use as much of your production as possible while limiting overproduction. Using your own power lowers your usage at the retail rate, overproduction is credited at avoided cost.
- I produced more energy than you are showing, why is that?
 - We only see your **net usage** and **excess generation**. Your system might report generating 2,000 kWh in a month but if you use 1,500 kWh yourself, we will only see excess generation of 500 kWh. The other 1,500 kWh would be represented in a much smaller net usage.