On-Farm Clean Energy

Using Net Energy Metering Aggregation to lower costs and improve the efficiency of your renewable energy system

NET ENERGY METERING AGGREGATION allows electrical customers greater flexibility in their siting and usage of renewable energy facilities. It can significantly reduce your electricity costs and make a renewable energy installation more economical.

This new feature of California's Net Energy Metering program was added early in 2014 through the passage of Senate Bill 594 (Wolk) and the advocacy of CalCAN and other agriculture representatives (for more information: http://calclimateag.org/net-metering/).

How does it work?

NEMA allows renewable energy that is connected to the grid through one meter (the 'Generating Account') to be credited against electricity use on other meters ('Aggregated Accounts'). For example, energy produced through a solar PV system on the roof of a barn could be used as a 'credit' for energy consumed within the same billing period by an ag pump on a faraway field.

What are the advantages of NEMA?

There are two major advantages to NEMA that could lower your energy costs:

1. **Get full retail credit for ALL of your renewable energy.** Without NEMA, any energy you produce that isn't consumed on the Generating Account during a 'True-Up' period is forfeited to the utility or compensated at a rate well below retail value. Under the new NEMA, you can now redistribute that energy across meters and properties so you don't have to cash in for much less than the energy is worth.
2. **Build a system to offset ALL of your energy usage.** NEMA is a cost-effective way to build a larger system that offsets electricity consumed on ALL of your eligible properties and meters. With NEMA, a single large rooftop PV system has the same practical effect as several smaller systems spread across multiple fields and may be a more efficient way to design your renewable energy project.

What are the basic requirements?

All renewable energy producers who connect to the grid through Net Energy Metering can apply for NEMA. The following restrictions apply to NEMA meter arrangements:

1. All meters must be on land owned, leased, or rented by the same customer. You will be asked to submit parcel maps to prove this.
2. All meters must be on parcels that touch, in an unbroken chain, the parcel of the Generating Account. Parcels divided only by a road are allowed.
3. One Generating Account is permitted per NEMA arrangement. If you have more than one system, create a separate NEMA arrangement for each system.

How do I apply for NEMA?

NEMA is open to all customers of PG&E, SCE and SDG&E. Each meter requires a $25 sign-up fee (maximum $500) and a $5 per month billing charge.

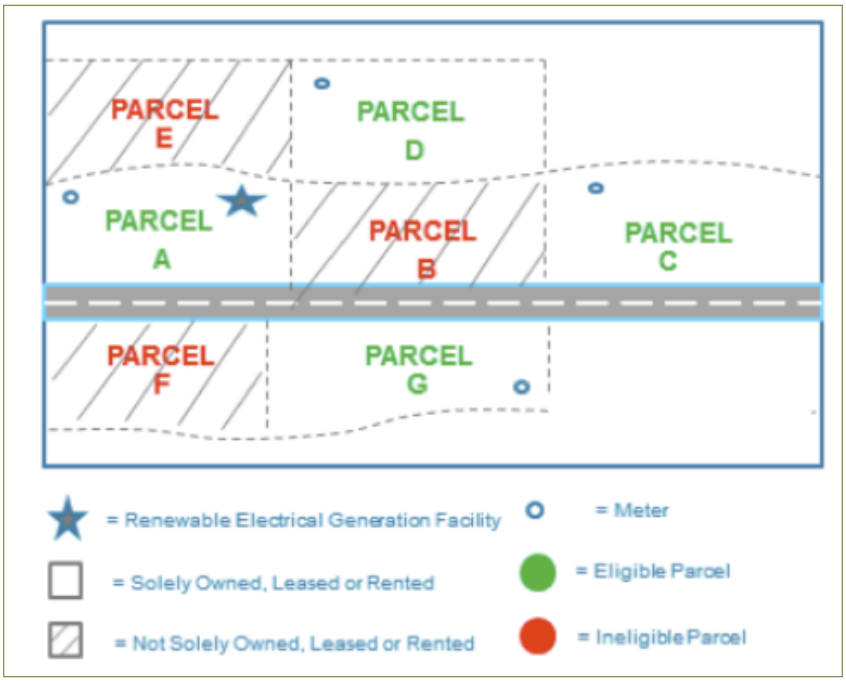
To apply for NEMA:

1. We recommend that you consult a system installer or energy consultant to determine the ideal design of your aggregation arrangement.
2. Complete your utility's NEM Aggregation form, downloadable online.
   For PG&E go to: bit.ly/PGE_NEMA
   For SCE go to: bit.ly/SCE_NEMA
   For SDG&E go to: bit.ly/SDGandE_NEMA
3. Assemble parcel maps of all parcels with meters that are to be included in the NEMA arrangement.
4. Submit your NEMA application (along with other NEM interconnection materials if installing a new system).

Net Energy Metering Aggregation for Farmers: Frequently Asked Questions

Which of my parcels that contain meters are eligible to become part of an aggregation arrangement?

The diagram at right shows a fairly complex parcel arrangement. All parcels must be (1) solely owned, leased, or rented by the same customer; and (2) touching the Generating Account's parcel or in an unbroken chain from it (roads do not break the chain).



Source: PG&E

I have meters on different rates (e.g. Residential, Agricultural, and Commercial). Can they be tied together in an aggregation arrangement?

Yes. All meters, regardless of the rate class or Otherwise-Applicable-Rate Schedule (OAS), can be tied together. If any of your meters are on Time-of-Use rates, you may need a meter upgrade (see below).

Are there any requirements for the type of meter equipment I use to track energy production?

You may need to pay for an upgrade to your Generating Account meter if any of your Aggregated meters are on Time-of-Use rates. The Generating Account's meter must separately measure the kWh export to the smallest time interval used for billing on ANY of the Aggregated Accounts.

Can I interconnect my system to a meter that doesn't consume energy (has no load)?

Yes. Under NEMA, your Generating Account can be solely for the purposes of tracking energy generation. In this case, all kWh generated will be allocated to the other meters in the aggregation arrangement.

Does creating a NEMA arrangement require installing any additional equipment for distribution upgrades?

Adding NEMA to an existing system usually will not create additional electrical load or require distribution upgrades. However, sizing a new system that is large enough to carry the load across multiple meters may mean you will need more equipment than what a smaller system would require. This could add significant cost to your initial installation.

Will NEMA have an effect on my Demand Charges?

For existing systems, unless you make a significant change to your energy usage patterns, your Demand Charges should remain the same. For new systems, NEMA does not provide any specific advantages over basic NEM as far as Demand Charges are concerned.

Is NEMA available for customers currently interconnected under NEM-MT (Multiple Tariffs), such as those with a fuel cell AND a PV system on the same meter?

In some cases, yes, but it depends. Contact your utility representative to explain your unique system set-up to find out if you qualify.

How is electricity I produce allocated to my different meters for billing purposes?

Energy you produce is first used to offset any kWh consumed on the Generating Account. Any kWh left over after serving the on-site load is then recorded and allocated to your other meters using a formula based on actual consumption.

CalCAN
California Climate & Agriculture Network

The California Climate and Agriculture Network (CalCAN) is a collaboration of California sustainable agriculture organizations. We cultivate farmer leadership to face the challenges of climate change and to serve as California's sustainable agriculture voice on climate change policy.

Created by CalCAN for informational purposes only. Contact your electric utility before taking any action pertaining to your renewable energy system.

Additional resources available at calclimateag.org/net-metering

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