

Net Metering SB256 Testimony

- DANNO RYAN / NATIONAL CENTER FOR APPROPRIATE TECHNOLOGY (NCAT)

Pacific Gas and Electric, the utility servicing Northern and Central California has 40 Megawatts of distributed solar electric systems. There are expected to be between 8000 and 9000 new distributed solar electric systems installed in California this year. NorthWestern Energy has interconnected close to 200 small distributed solar and wind generators. Net metering is safe when the systems are installed according to existing codes and standards. I have never heard of any injury caused by a net metered distributed generation system. In the case of a utility power outage, the system will disconnect from the utility, and after the power is restored, the system will reconnect. Though there are thousands of systems interconnected, there has never been a case documented of injury caused by a net metered system.

Net metering is not a sale of electric energy. No check is written to the customer for any excess energy produced. Because of this nature of net metering, a customer will not install a bigger generator than is needed to offset the customer's energy bill. Further, larger generators are installed now, they are just not net metered. These generators serve dedicated loads and are off-grid.

Most systems interconnected are small. These systems will run a conventional meter backward from time to time, but the customer generally uses more electric energy than the generator produces, and the net energy is charged to the customer each month. These systems are basically invisible to the utility.

PROBLEM w/ SD law limit -

We think that distributed generators should not be larger than the peak design load of the facility to which they are connected. That way there are no significant changes to the utility system needed in order to do the interconnection. We support the notion that the larger generators should be installed only upon the approval of the utility.

smaller GENERATORS EXIST NOW

Net metering tried up over an annual basis can be a significant benefit to irrigators, who can generate energy with a wind turbine over the course of a winter, then use the energy over the course of the irrigation season.

Utilities recover their costs through three basic mechanisms. Energy, Demand, and flat monthly charges. How a utility decides where to allocate the cost recovery is up to the utility, the public service commission, or the utility governing board.

We would like to suggest priorities in improving the net-metering legislation in Montana. This is essentially our wish list from most important to less important.

1. Annual banking allowed by all utilities in state with the customer able to select quarterly true-up dates.
2. The costs of net metering including metering, accounting, and subsidies from electricity delivered to grid are distributed to customers. This prevents utility from charging for extra meters, accounting, insurance, etc. to essentially discourage use of net metering.
3. All utilities should allow net metering of systems up to 50 kW capacities.
4. Systems greater than 50 kW in capacity may be net-metered only with the utility's consent and the utility has the option of imposing costs not allowed on smaller systems.

In response to the question of how larger net-metered systems impact cooperatives versus NWE, we offer the following. The issue of how net metering will impact the cooperatives versus NWE or MDU is complex. Each utility has different real energy supply and non-supply costs. By non-supply we refer to transmission, distribution, and other associated service costs. Each utility will also choose to allocate those costs differently between a service charge, energy charge (made up of supply and non-supply components), and a demand charge for larger customers.

It appears to us that for smaller residential scale self-generators the per generator non-supply cost impact of net metering is greater on NWE than on cooperatives. The non-supply portion of the coop's per kWh charge is less than the non-supply per kWh charge for NWE. In addition, the coops have a higher service charge than NWE. Net metering does not impact the service charge.

For larger demand meter scale generators the per self-generator customer impact is greater on cooperatives than on NWE. The coops have implemented lower demand charges in their cost recovery procedure, than NWE.

The purpose of net metering is "primarily to offset part or all of the customer-generator's requirement for electricity." By design it is a simple and preliminary way to encourage self-generation using renewable energy sources. This a subsidy provided to the net-metered generator since they get retail rates for the power supplied to the grid. That subsidy will vary between utilities.

In the utility world cross subsidies are everywhere. Customers near the substation subsidize customers farther away. Urban customers subsidize rural customers. But there can also be benefits. A generator at the end of the line decreases transmission line loading and therefore yields lower line losses. A renewable energy fueled generator provides environmental benefits in which everyone shares.

The reasoning behind net metering is that the net-metering costs that are shared among customers are a valuable investment in a sustainable energy future.

Net metering is an incentive to customers who want to install a renewable energy generator. For the foreseeable future it's not such a great incentive that huge numbers of customers will go for it.

There are instances based on customer loads and grid loads when self-generators make sense. For that reason each utility should consider these larger applications (greater than 50 kW) individually. There may be a reasonable argument to allow 65 kW wind systems to allow the rebuilt wind machines that many irrigators in Montana are considering.