



WYOMING LEGISLATIVE SERVICE OFFICE

RESEARCH MEMORANDUM

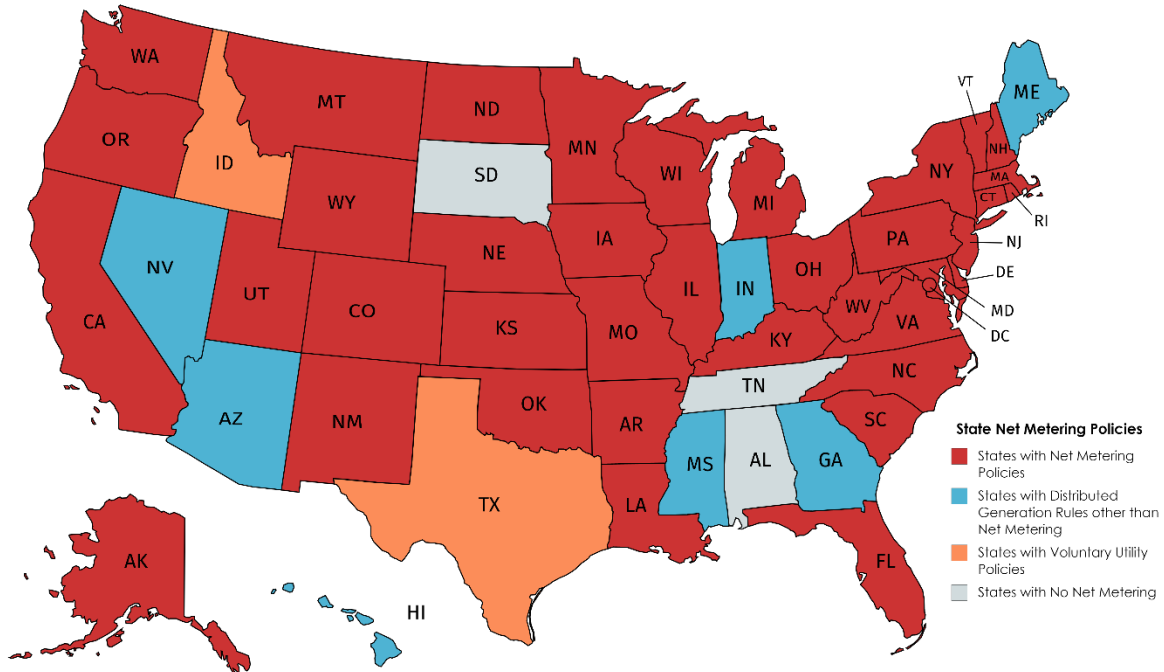
NET METERING

April 25, 2019

by

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Thirty-eight states have adopted net metering policies which generally allow customers to sell excess electricity generated on their property to a utility at a retail rate and receive credit on their utility bill. The rate of resale, eligible technology and the capacity limits vary widely from state to state. Two states, Idaho and Texas, allow utilities to voluntarily adopt net metering programs. Seven states, Arizona, Georgia, Hawaii, Indiana, Nevada, Maine, and Mississippi have statewide distributed generation compensation rules which are similar to net metering but either do not offer full retail rate compensation or use an alternative compensation structure such as “buy-all, sell-all,” which does not allow for behind-the-meter customer-generator consumption.



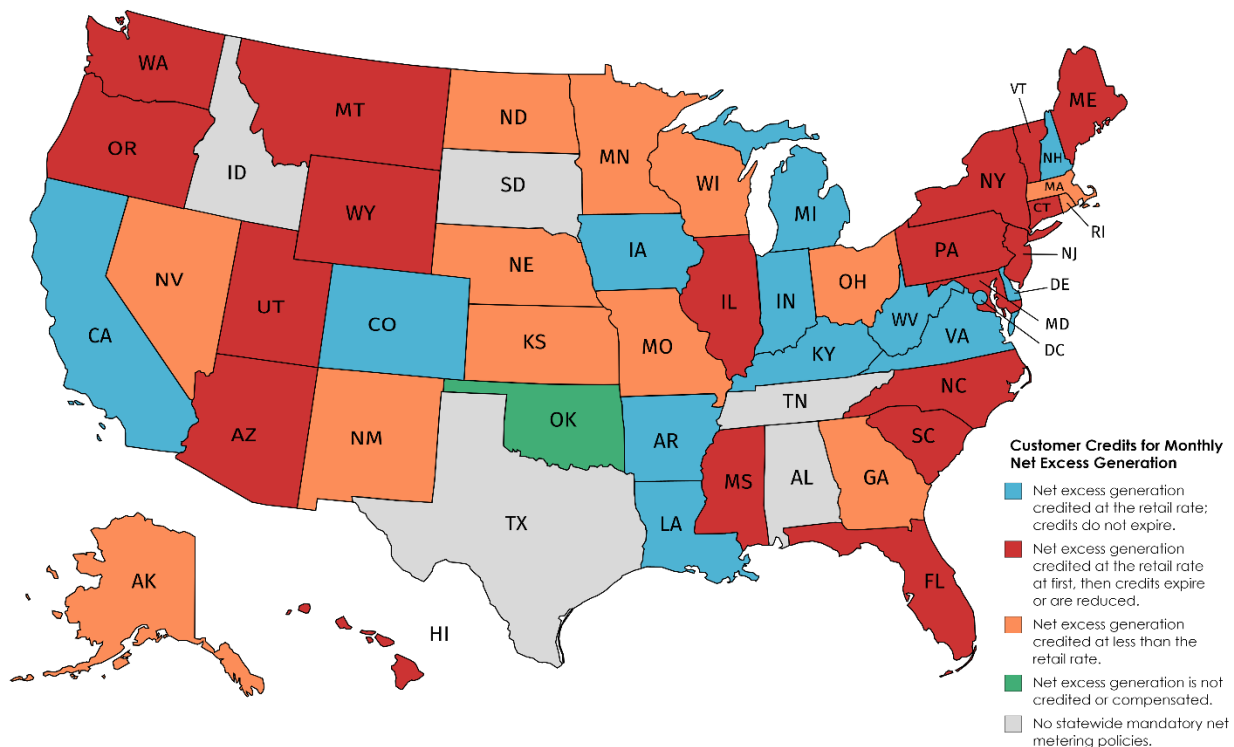
Source: NC Clean Energy Technology Center Database of State Incentives for Renewables and Efficiency (DSIRE), November 2017.

Capacity Limits

Most state net metering laws use capacity limits to limit the size of individual electric generating systems. Capacity limits vary between the states but generally are either a maximum kilowatt limit or a maximum percentage of a customer's total electric use. Capacity limits can also vary between utility type, customer type, technology, and even between individual, aggregate or virtual¹ net metering systems.²

Net Excess Generation Compensation

How states compensate customer-generators for excess generation also varies. Some states, such as Colorado and Iowa, compensate customers with credits at the retail rate and the credits do not expire. Many states, including Wyoming, credit customers at the retail rate initially, but the credits either expire or are reduced to the cost-avoided rate at the end of the year.³ Other states compensate customers with credits at less than the retail rate, typically the cost-avoided rate. Only Oklahoma does not offer any excess generation credits or compensation.



Source: LSO Research update to information obtained from the NC Clean Energy Technology Center, DSIRE.

¹ Virtual net metering systems are discussed more fully later in this memorandum.

² Compiled from NCSL information available at: <http://www.ncsl.org/research/energy/net-metering-policy-overview-and-state-legislative-updates.aspx#statenet>.

³ The cost-avoided rate is calculated as the costs a utility avoids by not having to produce that amount of power.

Net Metering in Wyoming

Wyoming adopted its net metering statutes in 2001, defining net metering as the “difference between the electricity supplied by an electric utility and the electricity generated by a customer-generator that is fed back to the electric utility over the applicable billing period.”⁴ Under this law electric utilities must make an energy meter available to each eligible customer-generator who has installed a net metering system. The energy meter monitors the flow of electricity to and from the customer-generator’s system, allowing the electric utility to measure the net electricity produced or consumed during the billing period. If the electricity supplied by the electric utility exceeds the electricity generated by the customer-generator, the utility bills the customer-generator for the appropriate customer charges. If the electricity supplied by the customer-generator exceeds the energy supplied by the electric utility, the utility credits or compensates the customer-generator by applying an amount equal to the retail rate for the excess energy to the next month’s utility bill. Unused credits, essentially credits which exceed a customer-generator’s monthly utility bill, may be saved and used for future monthly utility bills. At the beginning of each calendar year, unused credits from the previous year must be sold to the utility at the cost-avoided rate. Eligible net metering systems include facilities that use solar, wind, biomass or hydropower to fuel the system, have a generating capacity limit of not more than twenty-five kilowatts, are located on the customer-generator’s premises, and are intended to primarily offset part or all of the customer-generator’s requirements for electricity.⁵

Aggregate Net Metering

A trend across several states has been to adopt aggregate net metering policies. Eighteen states have specific laws requiring utilities to offer some form of meter aggregation:⁶

- Arkansas
- California
- Colorado
- Delaware
- Illinois
- Maine
- Maryland
- Minnesota
- Nevada
- New Jersey
- New York
- Oregon
- Pennsylvania
- Rhode Island
- Utah
- Virginia
- Washington
- West Virginia

In contrast to traditional net metering which involves a single generating system offsetting a single meter, basic aggregated net metering laws authorize a single generating system to offset multiple meters on the same property or other adjacent properties.⁷ Potential users impacted by these laws

⁴ Wyoming Statute § 37-16-101.

⁵ Paragraph paraphrased from Wyoming Statutes §§ 37-16-101 through 103.

⁶ <http://www.ncsl.org/research/energy/solar-policy-toolbox.aspx>

⁷ Chelsea Barnes, *Aggregate Net Metering: Opportunities for Local Governments*, North Carolina Solar Center, page 5 (July 2016) (available at: <http://icleiusa.org/wp-content/uploads/2015/11/Aggregate-Net-Metering-Opportunities-for-Local-Governments.pdf>).

include universities, municipalities, or even agricultural operations where often you have multiple buildings, each with its own meter, all located on the same premise with the same account holder.⁸

Shared Renewable Energy

Most states have some form of shared renewable energy laws. In fact, Wyoming is one of eight states that do not have an active shared renewable energy program or legislation.⁹ Shared renewable energy laws are essentially a more complex type of aggregate net metering laws. One of the most common types of shared renewable energy laws are virtual or community net metering laws. These laws allow either multiple meters and account holders on a single site, such as multi-unit residential or commercial buildings, or multiple locations and meters to offset energy use from one or several shared distributed electric generation systems. Virtual net metering allows several customers to participate in meter aggregation even if they are located on non-contiguous properties. Community net metering is similar to virtual net metering but is offered to a range of customers typically within a particular geographic area or utility service area.¹⁰ Another form of shared renewable energy are community renewable projects, also known as community solar or community solar gardens. These programs allow multiple customers to purchase an interest in a shared renewable energy system, most often solar, located on or off-site. This system typically operates on a subscription basis.¹¹

The substance of shared renewable energy laws varies quite a bit between the states. For example, Kansas, which does not even have an aggregate net metering law, has a very limited shared renewable energy law that allows groups of five or more people to establish a renewable energy cooperative and sell the produced energy.¹² States at the other end of the shared renewable energy spectrum, such as Colorado and Minnesota, allow both virtual net metering and multiple customers to participate in a common solar distributed generation system via a community solar garden program.¹³ Maryland also recently launched a community solar pilot program in 2017 which allows residents and businesses to purchase energy subscriptions from community solar arrays.¹⁴

Some states, however, have started to modify their net-metering laws to address criticism that compensating customer-generators at the full retail rate creates an unfair incentive for those who can install or purchase renewable energy, possibly at the expense of customers who are not

⁸ Virginia's meter aggregation law only applies to agricultural customer-generators; § 56-594.

⁹ <http://www.ncsl.org/research/energy/solar-policy-toolbox.aspx>

¹⁰ Id.

¹¹ Id.

¹² Kansas Electric Cooperative Act, found at K.S.A. § 17-4652 et seq..

¹³ <http://www.ncsl.org/research/energy/state-policies-for-shared-renewable-energy.aspx>

¹⁴ <https://energy.maryland.gov/residential/Pages/CommunitySolarGuaranty.aspx>

able to purchase renewable energy or install their own generation system.¹⁵ Connecticut, for example, passed legislation in 2018 to phase out its existing net metering and residential solar investment program.¹⁶ The new law will provide customer-generators with the option of operating under a “buy-all, sell-all” system, which does not allow for behind-the-meter customer-generator consumption, or allowing the customer-generator to use the energy it generates, but any excess generation would be exported back to the utility at a specified export rate.¹⁷ The export rate is different from traditional retail rate or cost-avoided rate net-metering compensation in that it is essentially a tariff imposed on the exported energy. Existing net-metering customers in Connecticut will be grandfathered under the previous law until 2039.¹⁸

If you have any further questions, please do not hesitate to contact LSO Research at 777-7881.

¹⁵ <https://www.cres-energy.org/net-metering-in-colorado-an-update/>

¹⁶ <https://pv-magazine-usa.com/2018/05/09/connecticut-dismantles-net-metering/>

¹⁷ <https://www.cga.ct.gov/2018/BA/2018SB-00009-R01-BA.htm>

¹⁸ Id.