

## States Search for Net Metering Balance



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In astronomy, the "Goldilocks Zone" refers to the distance from a star where a planet with liquid water could exist. Too close, and all of the water evaporates. Too distant, and it freezes. As in its namesake fairy tale, the position has to be dialed in "just right."

With the rapid rise of solar energy as a major force in a market which, in most states, has been subject to stringent regulation, state-sanctioned monopolies, and constant interaction between government policy and the energy supply, states are searching for their own Goldilocks Zones. If policy is overly favorable to small, renewable power generation rather than traditional utilities, utilities argue they could be forced to raise rates. If policy is too restrictive, states risk losing the economic and environmental benefits of an industry that generated **\$154 billion in economic activity and employed 260,000 people in 2016.**

Perhaps nowhere is this search for the "just right" policy more evident than in states' various approaches to net metering. In most cases, renewable energy generators make money from the local electric company when they generate more power than they consume in a given billing period. But this causes headaches for utilities, who still construct and maintain the transmission lines, substations, and other infrastructure necessary for the lights to stay on all of the time (in theory, if everyone generated as much as they consume, the utility would be left to maintain the vast grid infrastructure with no revenue). Some argue that this shifts infrastructure costs onto those customers who do not own generating equipment as a subsidy to those who do.

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However, the economic and environmental benefits of a booming solar industry are too attractive to pass up. Why would any responsible legislator turn her back to an industry offering high-paying jobs that can't be exported, more money in the pockets of consumers who choose to go solar, and all of the economic and state revenue benefits attached thereto, along with a cleaner environment?

Clearly, a balancing act is required and, predictably, we currently have exactly 50 different versions of what the appropriate balance looks like. Many states place limits on the size of system that may be connected to the grid and take advantage of net metering, but these limits vary dramatically. Most limits fall around the 1MW mark, but in Wisconsin, only relatively tiny <20KW systems are eligible, while New Mexico permits systems up to a massive 80MW, and in Louisiana a residential customer is limited to 25KW while commercial customers may generate up to 100KW. Other states set limits as functions of the customer's usage. In Arizona, a system is eligible if it produces no more than 125% of the customer's load.

Some states also place a variety of limits on the percentage of the total electric supply that may come from net-metered systems. Sunny South Carolina caps net-metered supply at a paltry 0.2% of the total load on the grid, while Vermont permits up to 15% and Maryland has settled on a flat 1,500MW. When these limits are reached, some states prohibit the connection of additional net-metered systems, while in others a different rate structure is triggered. In Indiana, once the 1.5% cap is reached, new net-metering customers will be credited at 125% of the wholesale, rather than retail, value of their electricity.

On the horizon, smart meters and increased data collection and analysis promise to significantly improve policymakers' ability to accurately compensate customer-generators while protecting other ratepayers and the integrity of the grid itself. In particular, these technological advancements will facilitate rates for electricity both entering and exiting the grid which incorporate time-of-use, rising with peak demand in the afternoon and falling with demand late at night. In fact, some view the current array of state net metering policies as a placeholder; the byproduct of arguments that will be settled by gargantuan amounts of highly granular data.

This post only addresses a small fraction of the complexity and variety of net metering policies throughout the country, and new policies are under constant consideration. This trial-and-error approach, while exhausting for industry players trying to enter new markets and structure their practices and contracts accordingly, should eventually yield results proving certain policies superior to others. While we should always expect state policies to vary somewhat based on their different situations, let's hope that they all find the Goldilocks Zone sooner rather than later.