Seeing the Light

State utility regulators finding their way to resolve the net metering debate

Rooftop solar energy is no longer a pet project of environmental special interests and a handful of homesteading homeowners. Rather, rooftop solar is a major industry that provides thousands of jobs and measurable economic benefits. By the end of 2016, Utahns installed 140 MW of rooftop solar, a twofold increase in rooftop capacity every year over the past 10 years.[1] This boom can be attributed to a combination of declining solar system costs, tax incentives and favorable net metering electric rates designed to incentivize solar investment and market penetration.

Now, however, state utility regulators across the West and in Utah are caught in the middle of a tug-of-war between electric public utilities and the rooftop solar industry. Electric utilities are urging state regulators to end tariffs that incentivize homeowners to install rooftop solar systems. Electric utilities argue that rooftop solar no longer needs to be propped up by net metering tariffs that do not represent the true cost of service for rooftop solar customers. Rooftop solar advocates, however, argue that existing net metering tariffs should be maintained. They explain that existing rates compensate rooftop solar owners for benefits to public utility systems, as well as utilities' decreased reliance on fossil fuels.

The solar debate

On November 9, 2016, Rocky Mountain Power filed a revised schedule for its residential Net Metering Tariff that reduces net metering payments for customers with rooftop solar and increases fixed fees.[2] Under Rocky Mountain Power's existing tariff, solar system owners are compensated for any net excess energy sent to the system at the same rate that homeowners pay the utility for electric service. Meaning, if a homeowner pays $.09/kWh to draw energy from the utility system, the utility will pay the solar system owner $.09/kWh for any excess energy that is put out to the utlity's system. Rocky Mountain Power argues that paying rooftop solar owners at this rate is not just or reasonable given specific costs and benefits imposed to the system by rooftop solar generation.[3]

Ratemaking and determining how costs are recovered in ratebase is a gritty process. At its most basic level, electric rates are designed to pay for recoverable costs including costs that are associated with generation, transmission, distribution, administration of the public utility system and assets in a manner that is "just and reasonable." Historically, and by statute, what are considered "just and reasonable" costs are tied to a $/kwh metric.

By contrast, net metering tariffs and the benefits of net metering are more difficult to quantify. Net metering tariffs do not recover transmission, distribution or other infrastructure costs. At their inception, net metering tariffs were not created to address system costs in any sense. Rather, they were created to provide financial *incentives* to individual rooftop solar system owners. Net metering rates were not based on the same cost/benefit calculus applied to retail rates. Instead, they were created with the purpose of providing incentives to increase the number of rooftop solar systems within the state as a matter of public policy. To that end, Rocky Mountain Power's net metering rate is a success, with over 140 MW of rooftop generation within the state.

Now regulators must decide if the goal of the net metering tariff has been met and if the tariff should provide the same level of incentives going forward. For better or for worse, this determination is largely based on traditional ratemaking methodology of examining costs and benefits to ratepayers and the system as a whole.

In this context, strictly considering costs in terms of $//kwh, the case for rooftop solar is a difficult one. As a generation source, rooftop solar is subject to uncontrollable factors (such as cloudy days) that impact its reliability, and it is still relatively expensive. It is intermittent and, even in the sunniest of states, cannot provide the reliability expected of public utilities. Moreover, rooftop solar cannot be deployed based on a costs or system demand. Rocky Mountain Power must pay rooftop solar owners the retail rate irrespective of how, when or if power generated by the rooftop system is actually used by the utility to serve customers.

By comparison, natural gas, coal-fired and utility-scale renewable projects, including wind and solar generation, provide a level of reliability and deployment required by utilities to ensure reliability to their loads.

There are benefits to rooftop solar that should be compensated whether through ratemaking or other means. Solar technology, battery storage and metering technology are developing at a rapid pace. As system integration between load centers increases, utilities may be able to harness the collective power of rooftop solar for more cost-effective deployment across an entire utility system, not just a single household. Until that time, however, the question of rooftop solar may ultimately be a policy question that considers long-term growth of the rooftop solar industry and future public utility system integration. **UB**

[1] Utah Business Magazine, "Salt Lake City and Utah Clean Energy Unveil 10-Year Solar Deployment Plan," (February 2, 2017).
[2] Utah Public Service Commission, Docket No. 16-035-T14.
[3] Utah Business Magazine, "Salt Lake City and Utah Clean Energy Unveil 10-Year Solar Deployment Plan," (February 2, 2017).

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