



Meeting Customers' Evolving Needs

By Lisa V. Wood, executive director of the Institute for Electric Innovation and vice president of The Edison Foundation.

Increasingly, electricity customers are excited about the prospect of renewable resources being used to generate a major share of their energy—and some want to produce that energy themselves. But many more customers are looking to the expertise of their electric utility to help them meet their renewable energy goals.

Utilities are pursuing a variety of approaches to meet customers' evolving and diverse needs. Whether a residential customer is considering a renewable energy option, or a large commercial customer wants green power to meet its corporate sustainability goals, customers are looking for more choices and customized services from their electricity providers.

Innovative Solar Programs

Facing new market dynamics and driven by technology, utilities are developing new service offerings for customers.

One example is Tucson Electric Power's (TEP's) Residential Solar Program, which enables homeowners to go solar with no installation or maintenance costs, while ensuring stable, long-term energy prices. Approved in December 2014, more than 4,000 customers have expressed interest in participating in TEP's program—far exceeding the 500–600 homes TEP targeted for 2015. Under its program, TEP owns and operates the rooftop photovoltaic (PV) solar arrays and partners with local companies to install the arrays at the homes of participating customers. This program offers multiple customer benefits:

- ▶ A fixed bill for 25 years provides price certainty if TEP's electricity rates increase;
- ▶ Eligibility is not determined by a customer's credit score but is based on good standing as a customer of TEP and bill payment history;
- ▶ The lease is not overly restrictive, and the rate is easily transferable to a new home owner;
- ▶ Participants have the option to purchase the system after six years; and
- ▶ The program design reduces cost-shift to non-solar customers vis-a-vis current net energy metering policies.

The popularity of the program shows that customers want solar from their electric utility. To meet customer interest, TEP is seeking the Arizona Corporation Commission's approval to increase its annual expenditures on the program from \$10 million to \$15 million, which would add approximately 1,000 new rooftop solar participants in 2016.

Because TEP owns and operates the solar PV systems, the program also enables the deployment of distributed resources at targeted sites to maximize benefits to the grid. In addition, the rooftop PV system's energy production will be visible to grid system operators, controllable, and ultimately integrated into TEP's energy management and modeling systems.

Big Data, Big Demands

Utilities also are offering customized solutions through agreements with large commercial customers to power their data centers. For example, MidAmerican Energy recently entered into an agreement to supply Google's Council Bluffs, IA, data center with up to 407 megawatts (MW) of wind power to help Google meet its renewable energy goal.

Another example is NV Energy's green energy tariff where NV Energy is working with Apple to develop 19.5 MW of solar power. Under the agreement, Apple will take on all the costs and risks associated with the construction of the solar farm and initially own the plant with NV Energy leasing, operating, and maintaining it. After five years, NV Energy has the option to purchase the plant. Notably, the green energy tariff allows NV Energy to support Apple's renewable energy goal while avoiding shifting costs onto other NV Energy customers.

To serve customers more efficiently and affordably, utilities are providing new services and ushering in a new era where customers have choice and control over their energy supply. Safe, reliable, affordable, and increasingly clean electricity remains the primary mission of electric utilities. At the same time, our most-engaged customers are interested in exercising choices about both energy consumption and production. **EP**



TEP

The Institute for Electric Innovation focuses on advancing the adoption and application of new technologies that will strengthen and transform the power grid. The Institute's members are investor-owned electric utilities that represent about 70 percent of the U.S. electric power industry and are committed to an affordable, reliable, secure, and clean energy future.



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