



The Edison Foundation

INSTITUTE for  
ELECTRIC INNOVATION

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# Electricity: Relevant, Essential, and Collaborative

By **BILL LOVELESS**, energy columnist, USA Today

**T**he transformation of the electric power industry is well underway in the U.S., with new technologies already changing significantly the ways in which energy is produced and consumed.

That was evident at the 2016 “Powering the People” forum in Washington, DC, hosted by the Institute for Electric Innovation, where thought leaders from electric companies, technology companies, and the government discussed trends shaping the future of energy.

But for all the excitement over the potential for new opportunities, there remains considerable uncertainty over where this transformation will lead and what roles the investor-owned electric companies will play in it.

“We’re not going to be the best at everything,” Bob Rowe, president and CEO of NorthWestern Energy, said at the closing session of the March 17 event. “We’re really, really good at projects. We’re good at networks. We’re quite good at working at the community level. But we’re not going to have the magic application.”

What that means, Rowe said, is that electric companies need partners—technology partners—whose cutting-edge expertise complements their operations and meets the changing needs of their customers. Rowe added that the proposition is “very exciting,” though difficult to pull off.

As consumer appetites for new types of energy services grow, company executives need to “motivate ourselves to get out and figure out how to engage” with customers who want or need specific services, while still providing safe, reliable, and affordable service to the population as a whole, he said.

The challenges don’t stop there, either, as electric companies must make sure that new technologies and services pass muster with their regulators and provide the companies with a financial return to investors. That said, meeting those objectives can pay off big time.

“The market explodes when utilities actually incorporate new services into their business models and have a cost-recovery mechanism for them,” said Susan Kennedy, founder and CEO of Advanced Microgrid Solutions (AMS), who joined Rowe in the closing session.

“The key is identifying what is the market,” Kennedy said. “Is it the utility, or the utility’s customers, and why?”

Kennedy’s company sees such opportunities benefiting both electric companies and their customers in installing battery systems in buildings for grid support. Kennedy says AMS can seamlessly shift groups of buildings from grid power to battery power when demand for electricity is at its peak.

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In fact, the San Francisco-based energy-storage systems provider launched a pilot project with Southern California Edison and The Irvine Company, a California real-estate developer, to put Tesla Powerpack battery systems in more than 20 office buildings. Those installations began in January.

Other speakers at “Powering the People” offered similar stories, including Pedro Pizarro, president of Southern California Edison, and Chris Black, chief technology officer at Tendril, a Boulder, Colorado-based company whose analytics assist electric companies and other retail energy providers in marketing.

Both Rowe and Kennedy compared the changes taking place in the power sector now to those that disrupted telecommunications following deregulation of that industry in the 1980s and the proliferation of new technologies and vendors that followed the breakup of Ma Bell.

Kennedy, a member of the California Public Utilities Commission from 2003 to 2006, recalled the confusion that overtook regulators as advances in cell-phone technology began to proliferate in the 1990s, changing the way we communicate.

“Competition grew in ways that regulators never anticipated, and you ended up with a wildly competitive, completely disrupted telecom industry with the Internet and everything,” she said. “The same thing is happening in the electric power industry in that regulators cannot envision what a competitive market looks like, where consumers have so much control over their resources.”

Like Kennedy, Rowe, too, is a former state regulator, having been a commissioner and chairman of the Montana Public Service Commission from 1993

to 2004. He drew a similar comparison between the difficulties that regulators faced over telecom changes and those they are grappling with now in the electric power industry.

“I think we see that as a challenge on the electric side and to some extent on the natural gas side, as well,” he said.

Among the promising signs for the electric power sector is what appears to be a growing recognition among power providers and technology companies—certainly among those attending the Washington meeting—that it’s in their mutual interests to collaborate.

Not every electric company will prosper in the new environment, or even survive, in the face of competitors who sell rooftop solar systems and other options for generating electricity. But Rowe maintained that the infrastructure that electric companies own and operate across the U.S. will remain a critical component of our energy future.

“What we are hearing today is...that we are not only relevant but we are essential,” Rowe said.

Where are some of the biggest openings for new utility or collaborative ventures?

“I think the area where there’s so much opportunity that’s unexplored is in utilizing big data. I think that’s its own category, and people are just nibbling around the edges of it,” Kennedy said of the vast volume of information, much of it unstructured, that inundates the electric power industry every day. “When utilities are able to tap into big data in a meaningful way, and integrate it with large-scale infrastructure, it will have a transformational effect.”

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## About the Institute for Electric Innovation

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

IEI promotes the sharing of information, ideas, and experiences among regulators, policy makers, technology companies, thought leaders, and the electric power industry. IEI also identifies policies that support the business case for the adoption of cost-effective technologies.

IEI is governed by a Management Committee of electric industry Chief Executive Officers. In addition, IEI has a Strategy Committee made up of senior electric industry executives and a select group of technology companies on its Technology Partner Roundtable.

## About the Edison Foundation

The Edison Foundation is a 501(c)(3) charitable organization dedicated to bringing the benefits of electricity to families, businesses, and industries worldwide. Furthering Thomas Alva Edison's spirit of invention, the Foundation works to encourage a greater understanding of the production, delivery, and use of electric power to foster economic progress; to ensure a safe and clean environment; and to improve the quality of life for all people. The Edison Foundation provides knowledge, insight, and leadership to achieve its goals through research, conferences, grants, and other outreach activities.



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