

# Key Trends Driving Change

By LISA WOOD

The electric power sector is undergoing a significant transformation—the generation mix is changing; the energy grid is becoming more digital and more distributed; and customers have new and more defined expectations. Technology, policy, and customers all are playing a key role in this transformation, but technology is the principal driver. While the exact course of change is unclear, it's likely that a decade from now the electric power industry will look much different than it does today.

The Institute for Electric Innovation's (IEI's) newest book, "Thought Leaders Speak Out: Key Trends Driving Change in the Electric Power Industry Volume II," examines some of the key drivers of this change: the need to collaborate and innovate with customers nimbly and creatively; to lead in the application of smart storage; and to look beyond traditional electricity service boundaries toward smarter cities. These new trends illustrate how the smart grid is a critical building block to more innovation with customers, communities, and technology partners.

## Innovating with Customers

Offering innovative customer solutions is quickly becoming the new normal in the energy industry.

From large corporate buyers with sustainability goals, to small customers who want specific types of energy services, to military bases and the communities that support them, electric companies are offering their customers more individualized services and innovative solutions than ever before.



## Thinking Smarter

Society is demanding a clean, sustainable energy economy. The smart grid is the backbone of this new economy, enabling the integration of all sorts of new technologies. For example, electric companies are increasingly working

with cities to use data and technology solutions to drive efficiencies, increase sustainability, and improve community life. Electric companies also are integrating energy storage into the resource mix, which will play an increasingly important role in the more efficient use of renewable energy and in managing demand.

## Taking Action

The rapid advancement of technologies and the digitization of information fundamentally change what is possible with the energy grid. Our society and our economy are more dependent than ever on electricity. This means that the

successful transformation of the electric power system will require some new thinking:

- The mix of resources used to generate electricity will be cleaner, and a combination of entities will provide these resources.
- The energy grid will increasingly integrate and orchestrate a more complex mix of central and distributed energy resources.
- The energy grid will become more digital, more controllable, and more interconnected—a Grid of Things™.
- Diverse suppliers, including electric companies, will provide a range of individualized services to customers.

Getting all of this right in terms of technology, regulation, business models, and affordability requires the courage to act, the ability to partner, and the agility to adapt. The essays in IEI's newest book convey the kind of creative thinking needed at this critical time. For more information, visit [www.edisonfoundation.net](http://www.edisonfoundation.net). EP



**LISA WOOD** is executive director of the Institute for Electric Innovation and vice president of The Edison Foundation.

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.



INSTITUTE for ELECTRIC INNOVATION

The Edison Foundation



**EEl**

JULY/AUGUST 2016

**EP**

**ELECTRIC  
PERSPECTIVES**

PG&E Electric's  
Geisha Williams:

# Thinking Big

**32**

Energy Strong:  
Electric Companies  
and the Military  
Join Forces

**40**

Highlights  
from EEI's 2016  
Annual Convention