

Top 10 Things You Should Know About Grid Modernization

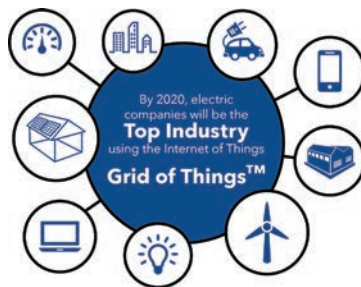
By **LISA WOOD**

Investing in a digital, robust, flexible, dynamic, and secure energy grid is essential. Why? First, a modern grid integrates new distributed energy resources and devices. Second, a modern grid provides the services and solutions that our customers want. Third, a modern grid improves reliability and resiliency.

As the electric power industry transforms and partners with a growing number of technology companies to modernize the grid, it does so while balancing affordability with the key capabilities mentioned above and enumerated below. That means modernizing the grid at the speed of value to our customers and delivering the energy future that our customers want.

To provide a sense of the scope and scale, the following shows the top 10 key facts and drivers influencing the electric power industry's grid modernization efforts today.

1. Grid modernization is primarily about the electric power distribution system. In 2016, U.S. electric companies expect to invest \$32 billion in the distribution system.
2. Grid modernization means developing a digital energy grid that empowers customers, ensures reliability, reinforces resiliency, and integrates distributed energy resources.
3. Grid modernization is essential to seamlessly integrating new distributed energy resources,



such as private or rooftop solar, electric vehicles, battery energy storage, and smart appliances.

4. Grid modernization provides a platform to individualize energy services for customers and to offer choices.
5. Grid modernization provides more visibility into the energy grid and is essential to improved reliability and resiliency.
6. Grid modernization includes the deployment of more than 65 million smart meters—covering 50 percent of all U.S. households—with more to be added. Smart meters connect distributed energy resources to the energy grid.



7. Grid modernization or the digitization of the grid is the intersection of energy technology, communication technology, and information technology.

8. Grid modernization requires partnerships between electric companies and technology companies to pilot, demonstrate, and deploy new technologies.
9. Grid modernization technologies produce data that electric companies use to improve grid management and to offer new customer solutions.
10. Grid modernization is a multi-billion-dollar, multi-year effort. U.S. electric companies expect to invest \$52 billion this year alone in transmission and distribution to make the energy grid more dynamic and more secure.

The energy grid is essential to our way of life. Using electricity has been a seamless process for 100 years and will require a more dynamic and more secure grid to continue for the next 100 years. That's why substantial investment, evolving technologies, and the right policy support are essential. **EP**



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The Institute for Electric Innovation focuses on advancing the adoption and application of new technologies that will strengthen and transform the energy grid. The Institute's members are investor-owned electric companies 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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