Unlocking the Benefits of Microgrids

Electric companies play a critical role in developing and deploying microgrids. As the owners and operators of the energy grid, electric companies are essential to harnessing the benefits of microgrids for customers.

Today, electric companies are using technologies like microgrids, energy storage, and private solar to develop a smart grid that delivers energy safely and reliably to customers.

Microgrids can help give customers more control over their own energy needs—enabling them to enhance reliability and resiliency; balance their energy use; achieve their clean energy goals; and explore other innovative products and services. When deployed by or in conjunction with electric companies, microgrids also can help enhance the resiliency of the entire energy grid and provide numerous public benefits that extend beyond the microgrid users to the grid and all customers.

To unlock the full potential of microgrids for customers, public policies should enable electric companies to participate in their development and operation and must ensure that electric companies continue to have a lead role in operating the energy grid.

42% Electric companies are involved in 42 percent of the microgrid projects in the United States.

~400% Electric company involvement in microgrid projects is up nearly 400 percent since 2014.
Microgrids Help Deliver Resiliency for Electricity Customers

Electric companies are using microgrids to improve resiliency for customers, to provide cleaner energy, to give customers more data about their energy use, to enable greater energy efficiency, and to deliver new products and services for future customer and community needs.

How Do Microgrids Work?

Microgrids are systems that can operate either as an integral part of the energy grid to bring power to customers or in “island” mode, interconnecting groups of customers to small-scale energy resources like private solar or storage. When operating in island mode, microgrids deliver power even if other resources are unavailable. For microgrids to be effective at all times, they must be interconnected with the energy grid.

Who Uses Microgrids?

Commercial, industrial, and institutional customers, including the military, hospitals, water and wastewater treatment facilities, academic institutions, and research facilities, are working with electric companies to deploy microgrids. Many electric companies have partnered with the U.S. military to build microgrids and other energy infrastructure on military bases. These partnerships benefit the military and other electricity customers by enhancing reliability and resiliency in a cost-effective way.

~3x
Since 2014, total installed U.S. microgrid capacity has almost tripled.
Electric Companies Play a Critical Role in Deploying Microgrids

Electric companies should be allowed to meet their customers' needs by owning and operating microgrids and by partnering with third parties on their design and operation. They also should be allowed to own, operate, and control the distributed energy resources that are part of microgrids. Factors influencing why electric companies should participate in microgrids include:

- Electric companies are committed to providing safe, reliable, affordable, and increasingly clean energy to customers, and they have a strong track record of preparing for and responding to emergencies that could impact their ability to generate and/or deliver power. They should be allowed to use all available tools to enhance reliability, including applications such as microgrids.

- Customers benefit from electric companies' expertise in successfully designing, building, and operating smarter energy infrastructure like microgrids, as well as from electric companies' economies of scale and integration.

- Electric companies plan and develop microgrids to harness maximum benefit from the energy grid and to be integrated optimally to benefit customers and communities.

- Allowing electric companies to partner or lead in microgrid development enables customers to avoid purchasing and maintaining their own backup energy supplies, controls, and storage.

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The benefits of microgrids include:

- **enhancing system resilience**
- **protecting critical infrastructure**
- **facilitating learning, efficiencies, and operational improvements**

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Learn More

**Microgrids: Trends & Key Issues**

Read more about electric companies' involvement in microgrid design and deployment in EEI's latest report. Available at eei.org.

**Electric Perspectives**

*Electric Perspectives*, EEI's flagship publication, provides insights on the transformation underway across the electric power industry. Available in print and accessible online at electricperspectives.com.

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About EEI

The Edison Electric Institute (EEI) is the association that represents all U.S. investor-owned electric companies. Our members provide electricity for about 220 million Americans, and operate in all 50 states and the District of Columbia. As a whole, the electric power industry supports more than 7 million jobs in communities across the United States. In addition to our U.S. members, EEI has more than 65 international electric companies with operations in more than 90 countries, as International Members, and hundreds of industry suppliers and related organizations as Associate Members.

Organized in 1933, EEI provides public policy leadership, strategic business intelligence, and essential conferences and forums.

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