The Role of Microgrids, Solar Energy, and Storage in Community Resiliency

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Projected: $52.8 Billion Invested in the Energy Grid in 2016

Smart Meters give more than half of all U.S. households more control and flexibility

Electric companies INVESTED $32B in the distribution grid in 2016

Digital grid enables TWO-WAY power and information flows

Source: The Edison Foundation Institute for Electric Innovation
Microgrids: A Winning Partnership

Project Count: 174 Microgrids

- End User: 63%
- Utility: 19%
- Municipality/Community: 9%
- Mixed: 7%
- Third Party: 2%

Source: GTM Research, US Microgrid Tracker, Q3 2017
Adding More Non-Hydro Renewable Resources to the Mix

Our universal solar projects accounted for 72% of all INSTALLED U.S. SOLAR CAPACITY in 2016.

OUR SOLAR PV had an average cost of $1.06 per watt in 2016

RESIDENTIAL ROOFTOP SOLAR PV had an average cost of $2.89 per watt in 2016

Our wind projects provide almost 100% of wind energy nationwide.
Using more than 90% of all energy storage in the U.S.

What is stationary energy storage?
Stationary storage is capable of taking electric output and converting it into another form of energy for use on demand.

What are the benefits?

For Homes
Storing solar and wind power could increase time off grid by 2-4 hours.

For Businesses
Control of power costs reduces downtime and production losses.

For Electric Companies
Improved efficiencies in demand-side management, generation, and transmission.

Source: Barclays Research, September 2015
Our Approach to Resilience

- Risk management, not risk elimination
- Defense-in-depth
- No single point of failure
- Resilience plans must incorporate recovery
- Benefits of a holistic approach

**Electricity Subsector Coordinating Council Stakeholders**

**GOVERNMENT**
- Federal Agencies
- Regulators
- PMAs
- Law Enforcement
- State, Local, Tribal, & Territorial
- Canadian Agencies & Provinces

**INDUSTRY**
- Electric Companies
- Trade Associations
- ISOs & RTOs
- NERC
- E-ISAC
- Canadian Electric Companies

**EXTERNAL GROUPS**
- Other Critical Sectors
- Vendors
- Critical Customers
- Media
The Electricity Subsector Coordinating Council is focused on improving the security of the energy grid:

- The ESCC plans and exercises coordinated responses to attacks or major disruptions to the grid.
- The ESCC makes sure information about threats is communicated quickly between government and industry.
- The ESCC deploys government technologies on electric company systems that improve situational awareness of threats to the grid.
- The ESCC coordinates closely with other critical infrastructure sectors.
The Edison Electric Institute (EEI) is the association that represents all U.S. investor-owned electric companies. Our members provide electricity for 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.

Safe, reliable, affordable, and clean energy powers the economy and enhances the lives of all Americans.

EEI has more than 60 international electric companies 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.

For more information, visit our Web site at www.eei.org.