

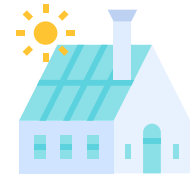
# MICROGRIDS

WHAT

**MICROGRIDS** are small networks of electricity generation and transmission independent of a larger regional grid.

They integrate distributed generation resources and electrical energy storage facilities into a localized distribution service area that can be disconnected—or “islanded”—from the main grid.

*A microgrid effectively coordinates local distributed generation and provides fine-tuned demand response while serving as a reliable backup to the larger grid.*



Ex: rooftop solar

microgrids

- Enable better responses to shifts in energy supply
- Reduce environmental impacts
- Efficiently manage costs
- Introduce pathways for employment in high-skilled, grid-related industries

**MICROGRIDS** help to create more resilient and economically dynamic communities.

WHY

Are an important factor in assimilating distributed generation resources into the grid—a critical step in harnessing the potential of clean energy technologies.

Reduce consumer electricity costs by eliminating transmission fees and through net metering.

Reduce reliance on carbon-intensive electricity generation.

Provide life-saving electricity in times of natural disaster.



*They are also a boon to national security as they gird communities against the potential for a large-scale attack on the nation’s electric grid.*

## IN SUMMARY

Microgrids are essential to energy policy through their overlapping benefit in three critical ways:

1 *Cost Savings*

2 *Resilience*

3 *Clean Energy Adoption*

## THINGS TO KNOW

- Microgrid capacity in the US has more than doubled since 2015, and researchers anticipate a 21% compounded annual growth rate of microgrid capacity over the next decade.
- Recent public opinion polling in the US from the Civil Society Institute shows broad bipartisan support for microgrids. The research shows a strong desire to learn more about microgrids, especially among younger Americans and solutions voters.
- Financing microgrids has been a major obstacle to their expansion. Recently, industry stakeholders and lawmakers have advanced energy-as-a-service (EaaS) models for financing. EaaS solves several issues by removing the need to finance the construction, and manage the generation and maintenance of installations from individuals and communities, allowing industry stakeholders to build and manage microgrids while delivering benefits to communities.

State lawmakers can facilitate the development and implementation of microgrids through several policy avenues, most notably by removing barriers to microgrid construction and coordinating grid integration:

- **MA H.1294 (2019)** recognized utility customers' rights to establish microgrids and procure local energy sources for the purpose of “energy generation or resiliency.”
- **HI HB2110 (2017)** instituted a Microgrid Services Tariff to spur microgrid development. The tariff on utilities will finance the integration of microgrids with the main grid, thus quickening microgrid adoption.

Some states have advanced legislation to create microgrid grant programs or introduced other economic incentives:

- **CT SB23 (2012)** established a microgrid grant program through the state’s Department of Energy and Environmental Protection. It has funded the development of 13 microgrids in the state, ranging from small municipalities, to a military base, to hospitals.
- **NY A02452 (2020)** is a bipartisan bill that would establish the TakeCharge New York program that provides economic benefits to qualified applicants constructing microgrids in the state.

STATE ACTIONS