Resilient Communities

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Your Touchstone Energy® Cooperatives
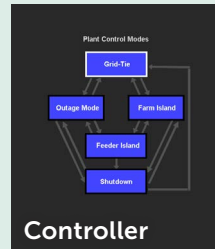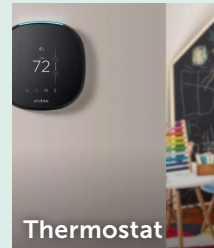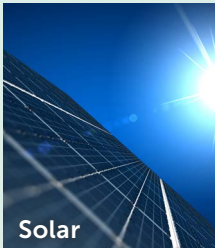
North Carolina's electric cooperatives are implementing new technologies to build resilient communities and make the electric grid more dynamic, flexible and efficient.

Cooperative microgrids—small electric systems that combine local energy resources and control technologies to power a defined area—provide community benefits by supplementing and diversifying traditional power resources, and help fulfill the cooperative promise of delivering high quality, affordable and reliable electricity.

Microgrid Components

- Renewables and battery storage technologies owned by the cooperatives

- Local energy generation resources and demand reduction devices, like smart thermostats and water heater controls, located within the homes and businesses of cooperative members

- A control system, operated by the cooperatives, to coordinate all components and optimize resilience and value to the community

Solar

Battery Storage

Water Heater

Thermostat

Diesel or Propane Generators

Biogas Generator

Controller

EV charger

Communities Across the State

Electric cooperative microgrids support resilient communities across North Carolina, and additional projects are underway.

Eagle Chase
Rose Acre Farms
Butler Farms
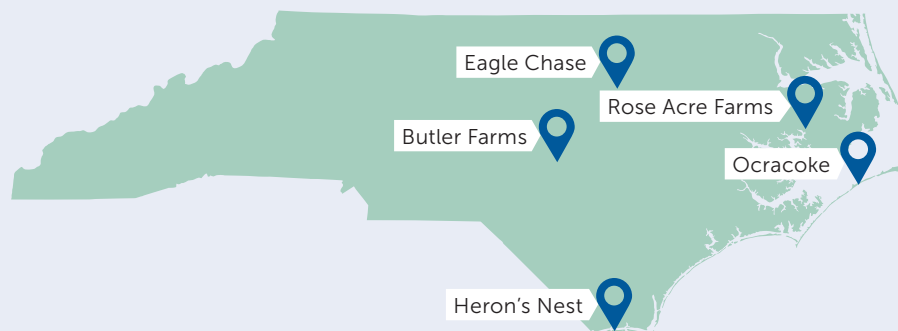Ocracoke
Heron's Nest

Community Microgrids

- Connected to the local electric cooperative's distribution system, a microgrid adds new power resources within a community to support greater efficiency and sustainability

- In the event of a grid power outage, a microgrid enhances resiliency by providing reliable electric service to the community

Grid & Community Benefits

- Local energy resources to avoid prolonged outages

- Increased grid flexibility and stability

- Improved power reliability and resiliency

- Enhanced environmental sustainability through lower carbon emissions

- Reduced power supply costs

- Ability for cooperative members to actively engage in efforts to promote greater energy efficiency, sustainability and reliability

Applications

- Residential communities and neighborhoods

- Agribusiness with on-site generation resources

- Commercial and industrial customers with specific power requirements