

New Resources, New Opportunities

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North Carolina's electric cooperatives are **pursuing and applying new technologies** to the electric grid to make it more dynamic, flexible and efficient, and ultimately more capable of supporting the cooperative promise of delivering the **highest quality service** at the lowest possible cost. These investments reduce peak loads and improve overall system efficiency, leading to traditional asset deferral for the G&T and its member cooperatives. Our innovations include:



In-home demand reduction devices

- Internet enabled and located within the homes and businesses of cooperative members.
- With strategies proven, pilot projects are scaling to widespread deployment of in-home devices.
- Educating membership and developing sophisticated targeted marketing capabilities to ensure success and create new member engagement.

68°

3,000

Thermostats



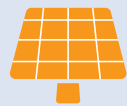
425

Water heater controls



Distributed energy resources

- Disrupt the traditionally linear path of power, putting power production closer to members.
- Integrating generation resources, including renewables, which can now be paired with battery storage technologies to improve reliability and reduce intermittency.



2 MW

Community Solar



260 MW

Utility Scale Solar
and Renewables



2

Battery Storage
Locations



Grid optimization

The individual value of these devices and resources is amplified when they are coordinated, and North Carolina's electric cooperatives are using control technologies and a Distributed Energy Resource Management System to achieve this coordination.

You can see this system in action at our two microgrid sites, which control and optimize components to enhance resiliency and bring other cooperative and community benefits to two North Carolina locations.