



OCRACOKE ISLAND **MICROGRID**

A comprehensive supply-and demand-side solution for a growing island grid

Power**Secure**



ABOUT THE CUSTOMER

Ocracoke Island is a barrier island in North Carolina that is only accessible by boat. It is the gem of the Outer Banks and a popular tourism spot in the summer. Because of its location, Ocracoke Island is exposed to severe storms that can cause flooding, high winds and power outages.

THE PROBLEM

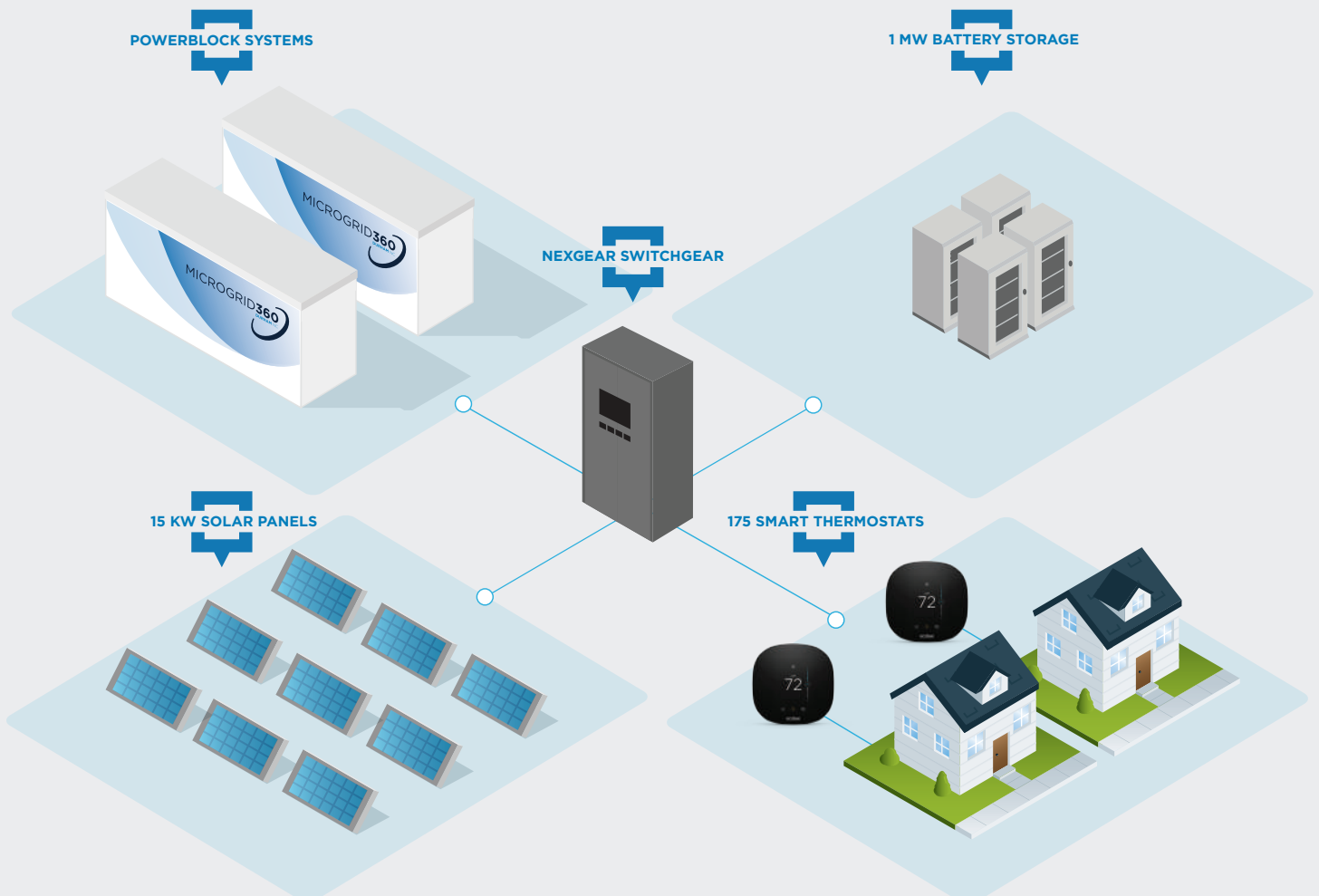
Historically, Ocracoke had relied on a 3 MW diesel generator to provide backup power and peak shaving. When a mix of warmer temperatures and tourism increased electrical demands, summer peak load remained over 6 MW even with the generator use.

This was not a sustainable situation for the island to maintain reliable and affordable power.

THE SOLUTION

PowerSecure engineered, designed, manufactured and installed a state-of-the-art microgrid solution that consists of PowerBlock generation systems, 15 kW of solar assets, 175 Ecobee smart thermostats, an integrated 1 MWh battery storage system and PowerSecure NexGear switchgear.

PowerSecure continues to operate the microgrid in concert with demand-management systems to maximize the utilization and benefits of local resources.



BENEFITS TO OCRACOKE

PowerSecure's custom-engineered Ocracoke Island microgrid now successfully provides:

- 1 Annual cost saving with peak shaving
- 2 Economically sound solution that maximizes use of the island's local resources
- 3 Greater reliability - PowerSecure installed a recloser to load-shed portions of the island when demand strains capacity

