



PowerSecure



# Ocracoke Island Microgrid

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

**CASE STUDY**

## 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 Challenge

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.

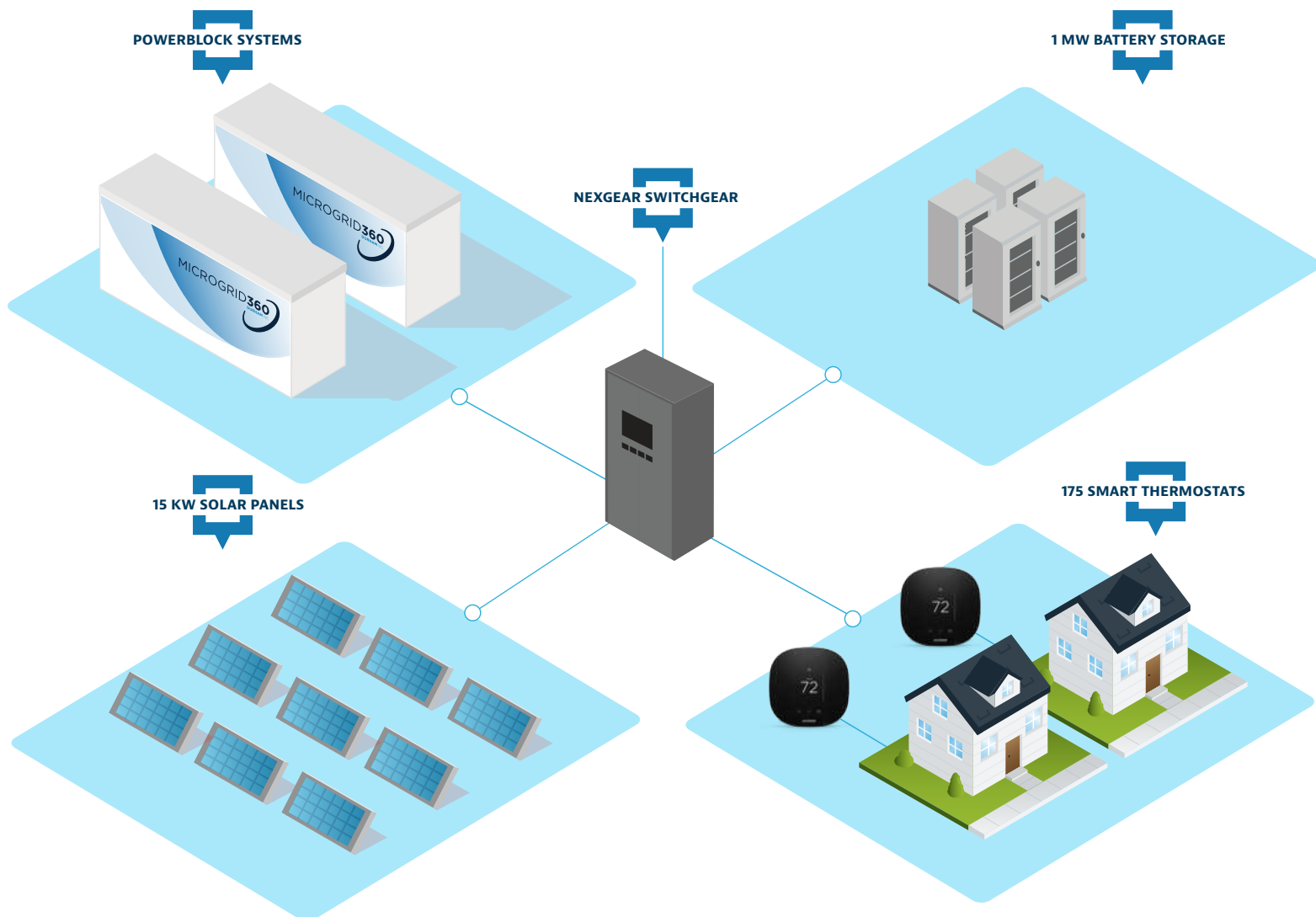
This was not a sustainable situation for the island to maintain reliable and affordable power.



# 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 the Customer

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  
Enables GUC to forecast fuel use and realize significant savings
- 3** Greater reliability - PowerSecure installed a recloser to load-shed portions of the island when demand strains capacity



## HEADQUARTERS

4068 Stirrup Creek Drive  
Durham, NC 27703  
919-556-3056  
[info@powersecure.com](mailto:info@powersecure.com)

## HR INQUIRIES

919-556-3056  
[careers@powersecure.com](mailto:careers@powersecure.com)

