

# Requirements and Implementation of Microgrids for Resilience

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**DEFENSE INNOVATION**  
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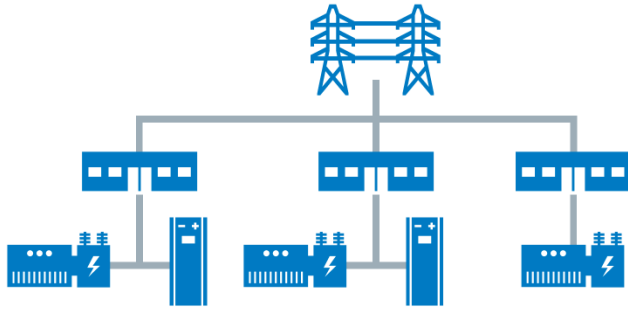
An aerial night view of a city, likely Los Angeles, showing a dense urban landscape with numerous skyscrapers and residential buildings illuminated by city lights. The sky is a deep blue, and the city lights create a vibrant, glowing effect across the entire scene.

Dedicated to improving people's lives  
and the environment

Providing power management technologies  
that are more **reliable, efficient and safe**

# Energy resilience: the trusted approach

## Backup generators and UPS for emergency power



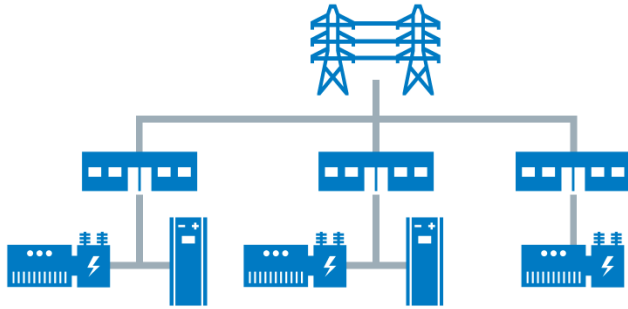
Backup generators & UPS

Eaton has delivered turnkey engineering services, power quality and electrical distribution equipment to support mission critical power systems for 35+ years

- Maximizing system performance through engineering, product reliability and service expertise
- Thousands of Eaton's high-power UPS are installed in the DoD
- Global network of over 2,000 support and service personnel

# Advancing resiliency to ensure the mission

## Some benefits of resiliency projects include:



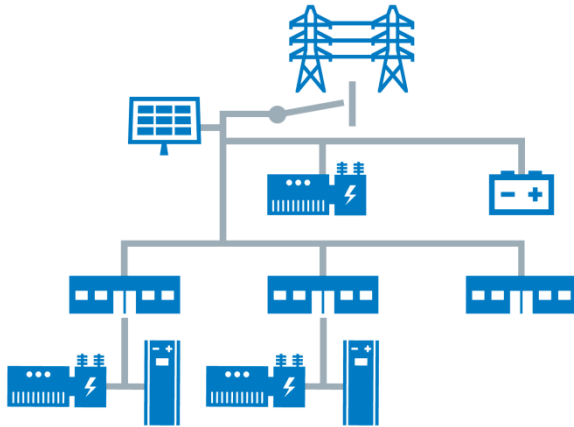
Backup generators & UPS

- Cost-effective assets that support the mission
- Long-term operational cost stability
- Islanding capabilities using microgrid technology
- Utility infrastructure upgrades

Source: U.S. Navy, Resilient Energy Program Office

# Energy resilience: the microgrid advantage

## Resiliency with improved operational efficiency



Microgrid with solar PV, generators, dual-purpose UPS, energy storage

- **Reduced fuel consumption for forward operating bases:** intelligently managing generator output, so the system provides adequate power, rather than inefficiently engaging all the generators continuously
- **Optimizing capital and operating costs at Fort Sill** – managing multiple generation sources including: wind, solar, battery storage and generators
- **Establishing a replicable model for bases with Fort Custer:** establishing a replicable model for reducing the overall cost to implement energy surety goals in sites where bases are closely located

# Optimizing microgrid performance

Simulate system performance before implementation

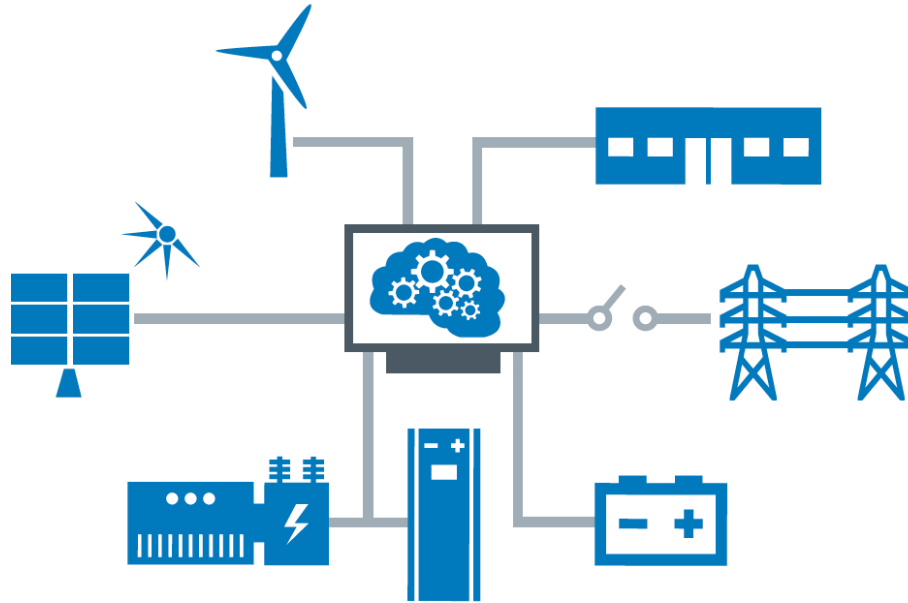


Operational microgrid utilizing real-time modeling and simulation

[Eaton.com/experience](https://www.eaton.com/experience)

# An integrated strategy: utility + renewables + backup power

**Resiliency with reduced operational costs**





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