

**MONDAY MORNING GROUP OF WESTERN RIVERSIDE COUNTY
ANNUAL ADVOCACY TRIP – WASHINGTON, DC
APRIL 7 – 10, 2025**

MARCH AIR RESERVE BASE MICROGRID FOR ENERGY RESILIENCE

ISSUE: With increased importance of March Air Reserve Base (ARB) supporting operations in the Indo-Pacific Region and increased utilization of the installation for exercises, a reliable, resilient energy supply is a requirement to maintain military readiness.

ACTION: The Monday Morning Group requests Administration, Congressional, and Department of Defense support for funding to acquire and construct a microgrid at March ARB to maintain a reliable electric energy supply for modern military operations and support disaster relief efforts.

BACKGROUND: March ARB priorities are to generate lethality, strengthen military readiness, develop NexGen airmen, and empower innovation. A reliable electrical energy supply is the lifeblood to enable military operations and support disaster relief efforts. Defense Energy Architecture (DEA) utilizing interconnected, distributed resources to ensure continuance of operations (COOP) is a requirement for modern military operations.

Hardening energy infrastructure and providing reliable and resilient power supply decoupled from commercial utility providers is necessary for military readiness to fight and win in great power competition. Building on DEA a microgrid is an interconnected system of diverse energy generation, storage, and transmission resources managed to distribute energy equitably to all mission partners ensuring COOP at expeditionary locations or in garrison.

A microgrid will allow an installation to decouple from the utility grid and provide necessary energy to conduct military operations. Kwajalein Island, Marine Corps Air Station Miramar, Yokota Air Base, and Tyndall Air Force Base are Department of Defense (DoD) examples where microgrids are deployed or planned to maintain COOP. March ARB is providing a prudent role in supporting military operations. Its geographic location provides a strategic location to support military and disaster relief operations in the Indo-Pacific.

The national electric grid was developed on centralized generation locations and transmitting electricity over long distances to point of consumption. Disruptions to electrical service can happen at any point in the distribution network with potentially long time until service is restored. Force majeure events (e.g., wildfires, earthquakes) are increasing in frequency and Public Safety Power Shutdowns (PSPS) occur to mitigate risk for local utility providers. Adversarial actions (e.g., cyberattacks, Electromagnetic Pulse [EMP] weapons) can disrupt power supplies crippling military response to national security concerns.

Traditional and non-traditional energy resources and management systems of microgrid concepts provide a variety of options for electrical energy independence and resilience at March ARB. Study and design of the microgrid is programmed for FY2026 with full operational capacity by no later than FY2031. Below are a few options for consideration to support a 20-megawatt system with estimated costs:

- Backup generator systems (traditional) for mission critical functions: \$5 million.
- Photovoltaic (PV) system (non-traditional) behind the fence line electricity generation: \$25 million.
- Battery Energy Storage System (BESS) (non-traditional) energy storage mechanism serving function as traditional generator: \$15 million.
- Hydrogen storage and fuel cell (traditional or non-traditional) energy storage mechanism serving function as traditional generator: \$16 million.
- Small Modular Reactors (SMR) (traditional) provide a reliable energy resource and meet State of California emission requirements: \$76 million.
- Installation-wide Energy Management Control System (EMCS) (traditional) using real-time and modelled inputs to control energy ensuring COOP: \$4 million.