Building the Corps Microgrid

Why is the army using a microgrid?
Technological advancement: This microgrid technology exemplifies the Army's dedication to modernizing for operational efficiency and resilience. The microgrid at Camp Arifjan integrates advanced technologies to optimize energy and distribution feeder management.

Can a microgrid be installed in the DoD?
Currently, for installation-scale microgrids in DoD, most projects include medium or low levels of renewable energy. Several projects with high levels of renewable energy have been developed and successfully executed at DoD installations, but these are typically at smaller scales.

Are DoD installations pursuing microgrids to meet energy resiliency goals?
Department of Defense Instruction 4170.111 requires installations to be more energy resilient,and as a result,many installationsare pursuing microgrids to meet their energy resiliency goals and requirements. This report provides a resource for stakeholders involved in analyzing and developing microgrid projects at DoD installations.

What is a microgrid project?
The primary goal for microgrid projects is to increase the energy resilienceand enhance the ability to serve an installation's electrical loads during a contingency situation.

Can microgrids improve energy resiliency?
(Marqusee,Schultz,&Robyn,2017) Microgrids can enhance energy resiliencyby providing energy surety (i.e.,loads have certain access to energy) and survivability (i.e.,energy is resilient and durable in the face of potential damage).

How does a microgrid work at Camp Arifjan?
The microgrid at Camp Arifjan integrates advanced technologies to optimize energy and distribution feeder management. Solar panels installed across the base capture sunlight and convert it into electricity. This energy is either used immediately or stored in advanced battery systems for later use.

Camp Arifjan has become a beacon of innovation and sustainability with the groundbreaking installation of a first-of-its-kind microgrid system. This project, spearheaded by the U.S. Army Central (ARCENT) ...

The military is among the largest buyers of independent power systems known as microgrids. They make tactical sense; and environmentalists hope they can help the transition from fossil fuels. Skip to main content

Last year, Marine Corps. Base Camp Lejeune in North Carolina contracted utility Duke Energy to build a $22 million microgrid there. The Marines also had a microgrid installed ...

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Marine Corps Air Station Miramar Microgrids Marine Corps Air Station Miramar (MCAS Miramar) is implementing two microgrids: one that serves the entire base and one that is sited at an individual building. These are referred to as 1) â ...

Military microgrids march on . 10. MCB Camp Lejeune chooses Duke Energy to build $22 million military microgrid The military was an early adopter of microgrids and has aggressive goals to install more. The Army ...

Microgrid systems deliver contingency power to loads inside a facility, a facility cluster, several facilities on a feeder(s), across a substation(s), or an entire installation campus. Islanded ...

The US Navy and Marine Corps said it plans to build cybersecure microgrids at critical military facilities as part of a climate strategy released this week. The news comes on the heels of a similar climate strategy ...

Building a Microgrid: 3 Best Practices. Nov. 8, 2018. Expect the unexpected. Paul Pabst. Planning a microgrid is a tedious endeavor, often resulting in complex decision-making. However, there are enough microgrids ...

Black & Veatch and Schneider Electric are designing and constructing an energy security microgrid at Marine Corps Air Station (MCAS) Miramar, in San Diego, California. Once fully ...

The microgrid system at Camp Arifjan represents a landmark achievement in military engineering. This first-of-its-kind initiative sets a new standard for energy resilience, cost efficiency, and...

Hurricane Michael devastated Tyndall Air Force Base in Florida in 2018. The rebuild is incorporating a microgrid built for the base by the local utility. "Florida Power & Light ...

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Building blocks for microgrids 4. Microgrids as building blocks for the future grid 5. Advanced microgrid control and protection 6. Integrated models and tools for microgrid planning, ...