

# MILITARY ENERGY BUREAU ENERGY STORAGE



Does the DoD need a microgrid energy storage system? Jack Ryan, Program Manager for DIU. At present, the DoD is heavily dependent on mobile generators in a microgrid configuration for its tactical power systems, but has been lacking a systems-integrated energy storage solution that can enhance grid resilience, fuel efficiency, and optimize tactical generator performance.



Where can I find a report on long-duration energy storage? This report is available at no cost from the National Renewable Energy Laboratory (NREL) at Marqusee, Jeffrey, Dan Olis, Xiangkun Li, and Tucker Oddleifson. 2023. Long-Duration Energy Storage: Resiliency for Military Installations. Golden, CO: National Renewable Energy Laboratory.



Is Antora energy's battery energy storage system ready for deployment? The LDES modeled is Antora Energy's battery energy storage system (BESS). It is currently at a technology readiness level (TRL) of 7 and not ready for full-scale deployment. To support decisions on the value of near-term demonstrations, this analysis looked at the potential value of Antora Energy's BESS if deployed in the future.



Can long-duration energy storage (LDEs) meet the DoD's 14-day requirement? This report provides a quantitative techno-economic analysis of a long-duration energy storage (LDES) technology, when coupled to on-base solar photovoltaics (PV), to meet the U.S. Department of Defense's (DoD's) 14-day requirement to sustain critical electric loads during a power outage and significantly reduce an installation's carbon footprint.



Should military installations use Antora energy's LDEs battery? It yields an NPV that is more than \$20 million higher than the electric-energy-only case. This allows the optimized system to use a larger solar PV and does not compromise the electric energy resiliency. This study assessed the potential value for military installations of a future commercial version of

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Antora Energy???'s LDES battery.

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How much energy does the DOD use? Energy is essential for DoD's installations, and DoD is dependent on electricity and natural gas to power their installations. In fiscal year 2022 (20), DoD's installations consumed more than 200,000 million Btu (MMBtu) and spent \$3.96 billion to power, heat, and cool buildings.



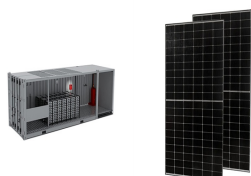
Battery energy storage technology is gradually becoming an important support for the military energy system with its flexible deployment, rapid response and clean characteristics. Solar energy storage system can achieve



88th Readiness Division Energy and Water Program Resilience. U.S. Army Jared Corsi, Thomas Helgeson, Ralph Thorn, Rachel Kemper, Ronald Hovland. Led by Colonel Jared Corsi, the 88th Readiness Division at Fort



WASHINGTON, D.C. The U.S. Department of Energy's (DOE's) National Renewable Energy Laboratory (NREL), in coordination with the U.S. Departments of the Interior, Agriculture, and Defense, today released a study

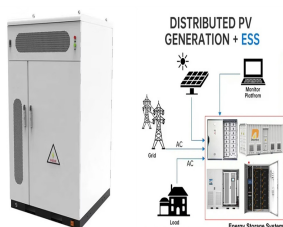


The vital importance of military and energy relationship can be understood easily by narrating the recent story of US-Pakistan oil crisis. On November 26, 2011 NATO attacked the

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Compared to conventional distributed, uncontrolled energy supplies, microgrids such as Pfisterer's Mobile Energy Management System offer a higher level of efficiency, enable storage as an energy reserve, and add the ???



Energy considerations are core to the missions of armed forces worldwide. The interaction between military energy issues and non-military energy issues is not often explicitly treated in the



Enhanced Energy Storage and Intelligent Power Management Systems for Defense Department Tactical Microgrids. Despite these improvements, military-grade generators cannot fully capture the energy ???



In November 2014, the State Council of China issued the Strategic Action Plan for energy development (2014???2020), confirming energy storage as one of the 9 key innovation ???



Without energy storage, operators often run redundant "backup" systems, which leads to increases in fuel consumption, operations, and maintenance. To reduce these logistical challenges and meet the Military ???

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This project install a photovoltaic system, a battery energy storage system, and a wind energy system, expected to avoid 137,264.6 pounds of CO2e emissions annually. Additionally, NOAA aims to implement a small potable ???



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Bureau of Energy Efficiency under Ministry of Power organizes the National Painting Competition on Energy Conservation every year across the country. Read More . International Cooperation. International Cooperation ???