



# JOINT OPERATIONAL ENERGY COMMAND AND CONTROL (JOEC2)

NATIONAL DEFENSE CENTER FOR ENERGY AND ENVIRONMENT

## PROJECT OVERVIEW

Expeditionary Army and USMC combat teams currently operate with inadequate energy awareness. Energy uncertainty negatively impacts the unit commander's ability to control the battlespace. Current manual feedback is late and often inaccurate, creating a culture of distrust in energy data. An adequate information system for measurement and reporting of operational energy does not exist. To solve this problem a JOEC2 will integrate sensors and an automated energy information and operational monitoring system to create decision space for key leaders, which can increase the unit's operational reach.

## BENEFITS

The Marine Air Ground Task Force (MAGTF) Operational Commanders and the DoD operational energy community of practice benefit from the transparency required to attain energy decision superiority. This capability reduces operational risk, enhances energy security, changes behavior, curtails waste, and directly supports the DoD, Army, and Marine Corps strategies and objectives. Transition partners include the Marine Corps Systems Command and the Army's Tank Automotive Research, Development and Engineering Center.

## PATH FORWARD

The goal of JOEC2 is to demonstrate technologies which will inform a Program of Record. Technologies will be evaluated in an operational environment on Marine Corps and Army platforms and assessed using experimental battalions during live fire exercises at Marine Corps Air Ground Combat Center (MCAGCC), Twentynine Palms, CA and ongoing fueling operations at Fort Irwin, CA. Technologies to be demonstrated will include in-line fuel flow meters, digital gauges to monitor driver trip meters and provide real-time fuel consumption information, generator meters to record generator usage statistics, and a commander's integrated energy dashboard to provide battlespace energy awareness.



Putting fuel metering system prototype into the hands of an end-user for evaluation under actual operational conditions.



The integrated vision of Joint Operational Energy Command & Control in the Theater Commander's Situational Awareness.

## FOR FURTHER INFORMATION:

**NATIONAL DEFENSE CENTER FOR ENERGY AND ENVIRONMENT (NDCEE):** <http://ndcee.army.mil/>

**SPACE AND NAVAL WARFARE SYSTEMS CENTER PACIFIC:** <http://www.spawar.navy.mil/pacific>