

POWER EXTENDER - GRID SOURCE (PEGS)

AGILE POWER EXTENDER FOR REMOTE OPERATIONS

PROJECT OVERVIEW

The PEGS system can extend power distribution from its current maximum of 300' to a longer distance of 4000'. This will enable remote sensors, weapon systems, and power loads to be run from the more efficient central power generation source while eliminating the need to run an extra generator set for one load in a remote area. The PEGS takes the normal 120-240VAC 15 amp circuit that is common on military power distribution equipment into the transmitter box; converts the AC to 600VDC to transmit over a ruggedized power line to the receiver box; which will convert it back to 120VAC for the local load to plug into.

Converting to the higher voltage eliminates the issues with line loss at the higher distance and enables the removal of spot generators from the battlefield; saving fuel, reducing greenhouse gas emissions, and reducing the logistic burden on the Warfighters. The PEGS system has the ability to displace/remove multiple generator sets from any unit/location.

BENEFITS

- Reduce the number of needed and running generator sets while providing an increased power reliability and availability by running from the main grid
- Increase the readiness of the warfighter and operational flexibility of the battle commander across all the services
- Reduce the logistic burden on the warfighter and reduce the fuel needed on the battlefield



PEGS system getting ready for use at Army airfield demonstration

PATH FORWARD

Selection by Operational Energy Capability Improvement Fund (OECIF) for follow on effort in FY22. OECIF project completing MIL-STD testing and final field demonstrations. Will provide an increased TRL and an easier and validated path to transition to PM E2S2.

The results from the original NDCEE project and the OECIF follow on project will be transitioned to PM E2S2 who will have the opportunity to directly take the design from the projects or the validated performance metrics and enter into an acquisition program to field the PEGS. All efforts in the acquisition will be dependent on obtaining a validated requirement to field the technology.

DoD Executive Agent

Office of the Assistant Secretary of the Army for Installations, Energy, and Environment

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FOR FURTHER INFORMATION

National Defense Center for Energy and Environment
<http://www.denix.osd.mil/ndcee/home>

Project Manager Expeditionary Energy & Sustainment Systems
<https://www.peocscs.army.mil/pme2s2.html>

U.S. Army - Combat Capabilities Development Center - C5ISR Center
<https://c5isr.ccdc.army.mil/>