HYBRID POWER ENERGY ROUTER (HYPER)

6T BASED BI-DIRECTIONAL INVERTER CAP

PROJECT OVERVIEW

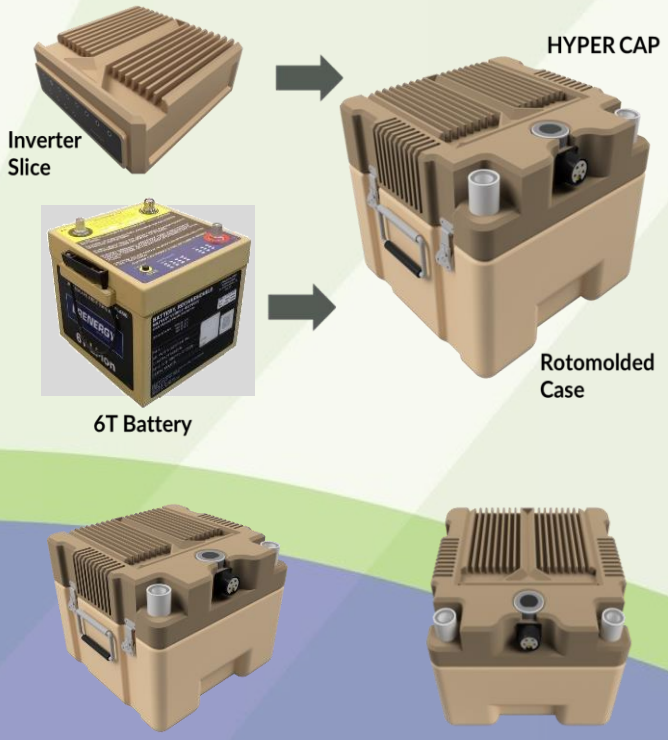
This project will develop an inverter based system to provide immediate, clean, and uninterruptable power for both AC and DC loads from any fielded 6T Li-Ion or AGM battery, vehicle power source, or generator set. The system to be light-weight single person carry solution that can harvest power from a wide range of power sources found on the battlefield. The HYPER will be a one-man carry device that can both harvest energy from any AC or DC sources and supply clean AC & DC power from a 6T Li-Ion battery, from the 24VDC bus of a vehicle, and from any AC power source up to 10kW. Primary configuration is to latch onto the top of a 6T format Li-ion battery to become one unit and use that stored battery energy to supply AC & DC power. The system is bi-directional and can energy harvest to provide power to a load or can be used to provide chassis power to a vehicle with a tactical system on board.

BENEFITS

- Reduce the number of needed and running generator sets while providing an increased power reliability
- 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

PATH FORWARD

Completion of this project will result in a transition of Hardware, a Tech Data Package, and/or Purchase Description to Project Manager – Expeditionary Energy & Sustainment Systems. PM-E2S2 holds the DoD charter for power generation and distribution. Upcoming major activities include demonstrations, field evaluations, soldier touch points, and mil-spec testing.



HYPER	Preliminary Specs
AC Types	Single (120VAC) / Split (120 /240 VAC) / 3-Phase (208 Delta)
AC Power	3.5KW / 7KW / 7KW
AC Current	42 Amps/Phase
DC Input / Output (Regulated)	100 Amp
DC Input / Output Voltage	10-50 VDC
Unregulated Battery Port Current	300 Amps
Generator Start I/O	Dry Contact / CANBUS / TMS
Size	12.5" x 15" x 15"
Weight	84 Lbs (Battery Included

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

Approved for Public Release

FOR FURTHER INFORMATION
National Defense Center for Energy and Environment
http://www.denix.osd.mil/ndcee/home

U.S. Army – Project Manager Expeditionary Energy & Sustainment Systems
https://www.peocscss.army.mil/pme2s2.html