National Defense Center for Energy and Environment

Compact High Density Tactical Energy Storage (CHDTES)

PROJECT OVERVIEW

CHDTES has resulted in the development of a Composite Universal USMC Battery (CUUB) with integrated containment technology in a large-format, marine-portable energy storage system. The CUUB is offered in two formats; one is an operational module that can be used for hybridization with power systems or silent watch; the other is a storage & transport module that enables safe storage and transport of high energy density electrochemical systems.

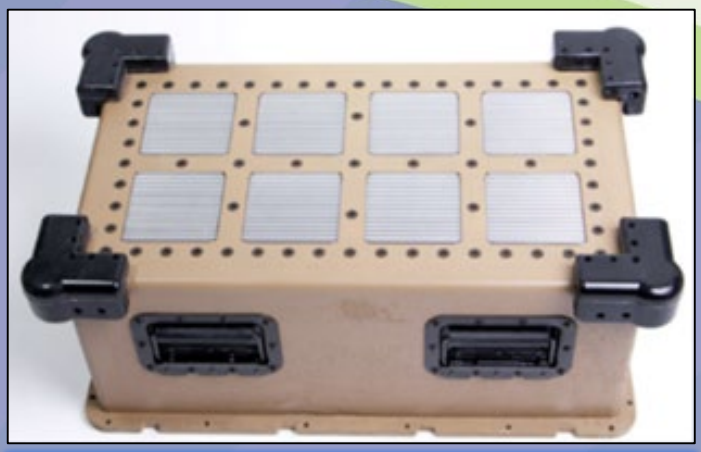
BENEFITS

- Containment technology provides thermal & structural integrity, and venting in the event of battery failure for added protection to surrounding equipment and personnel.
- Enables safer storage, transport, and operation of lithium batteries.
- Capable of holding up to two 6T batteries or multiple smaller batteries.
- Provides warfighters with a rugged solution to mitigate risks associated with the storage, transport and operation of lithium batteries.

PATH FORWARD

The demonstrations during this project shall assess the enclosure performance to support safe storage and operation of batteries through various ambient conditions and events. These demonstrations will quantify the packing and operation limits of the enclosure, and demonstrate ability to protect the batteries from other events such as fording and drops. Upon completion of this program, the composite enclosure will be promoted for use in field demonstrations with the warfighter.

Composite Universal USMC Battery Enclosure



Operational Module Configuration with Heat Sink

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FOR FURTHER INFORMATION

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