Department of the Navy SBIR/STTR Transition Program

DISTRIBUTION STATEMENT A. Approved for public release. Distribution is unlimited.

NAVSEA #18-556

Topic # N161-030

A Safe High Energy Density Power Source for Undersea Applications

Bettergy Corp.

WHO

SYSCOM: NAVSEA

Sponsoring Program:

Transition Target: PMS 485, Maritime Surveillance Systems, Deployable Surveillance System (DSS)

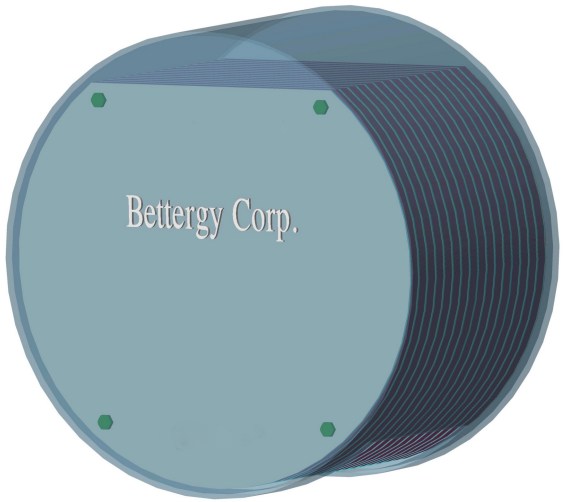
TPOC:
(619)553-1804

Other transition opportunities: Any undersea application that requires safe, high-density power

UUVs, sonobuoys, sensors, emergency beacons

Department of Homeland Security (DHS) in monitoring ports and coastal waters

Oil and gas industry, oceanographic surveying, salvage ships



WHAT

Operational Need and Improvement: Develop a novel power source that can provide electrical energy to the Deployable Family of Systems (DFoS) for as long as technologically feasible.

Specifications Required:
Reduce total operating cost
Reduce total volume
Increase power output
Compliant with Navy safety standards
Decrease the number of units required to complete the surveillance mission.

Technology Developed: Bettergy has developed a very high energy density, air-independent battery that has 3 to 5 times more power than that provided by the current lithium primary batteries. Bettergy's battery is low cost, safe, and can be produced in different form factors and adapted for different undersea applications.

Warfighter Value: Enhances and increases overall system persistence
Increases operating efficiency by reducing the number of units required
Reduces total operating cost by increasing the area covered by each unit
Safe--utilizes non-flammable components and meets Navy transportation requirements

WHEN

Contract Number: N00178-17-C-8018 **Ending on:** September 25, 2019

Milestone	Risk Level	Measure of Success	Ending TRL	Date
Demonstration of Performance of Cell Stack	N/A	Stack meets performance requirements	3	May 2018
Breadboard System Developed	Low	System meets performance targets	4	September 2018
If Option Exercised, Prototype Developed	Low	Prototype delivered that meets performance requirements and is verified by independant Navy testing	5	September 2019
If Option Exercised, Field Testing	Med	Ten prototypes delivered; verified by independant Navy testing	6	September 2020
If Phase II.5 awarded, Manufacturing Transition	Med	Manufacturing plan established and put in place	8	September 2021

HOW

Projected Business Model:
Bettergy has the capacity and capability to manufacture batteries to meet initial production demand. In order to meet increased demand we will seek strategic partners to produce certain components and/or manufacture the battery directly or, alternatively, manufacture the battery through a company with existing battery manufacturing capability or enter into a strategic partnership with an industrial partner. The batteries will be sold directly to the Navy.

Company Objectives:
Bettergy's objective is to develop and commercialize innovated energy technologies for both military and civilian applications. The specific objective with respect to this battery technology is to develop, optimize and manufacture the battery so that it can be deployed for use in Naval operations.

Potential Commercial Applications:
Applications requiring a very long duration undersea power source, including commercial and maritime operations involving undersea surveillance, sonobuoys, sensors, UUVs and emergency beacons. Other potential users include the US Coast Guard, and US Customs and Border Protection.

Contact: Guy A. Longobardo, Chief Operating Officer
galongobardo@bettergy.com 914-316-1508