**Department of the Navy SBIR/STTR Transition Program**

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**WHEN**

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

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

**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

**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.

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**Contact:**
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**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

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