

## Company Profile:

*Innovate ➤ Incubate ➤ Impact*

**Bettergy Corp.** was established to conceive, develop and commercialize innovative energy and environmental technologies for the military and the general public. The Company is committed to commercializing products through technology innovation, development and transitioning. The Company was founded in 2008 and has assembled a strong team, with a broad skill set and range of expertise.

Working from its research lab in Peekskill, NY, the Bettergy team has made great strides in several fields, and has two primary areas of expertise: advanced battery technologies for energy storage; and nanopore-engineered membranes for separation technologies and ionic conductive membrane technologies.

The Company's long-term goal is to build a successful business through technological innovation, development and commercialization.



If you are interested in our technology, or in partnering with or investing in Bettergy, please contact:

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### Battery and Fuel Cell Technologies

### Ionic Conductive Membrane Technologies

### Separation Membrane Technologies



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# **Innovate** ➤ **Incubate** ➤ **Impact**

## **Our Technologies:**

### **Battery and Fuel Cell Technologies**

#### **High Energy Density, Low Cost, Safe, Energy Storage Batteries**

Developing a low-cost battery using abundant materials to provide clean, industrial strength energy storage that sets a new standard for the combination of affordability, performance, safety and form factor.

- Target markets: residential/commercial behind-the-meter storage, solar and wind energy storage and grid storage markets; electric vehicles
- Proven, benchmarked, performance
- Energy density targets : 70 - 120 Wh/kg
- Long Cycle Life (>5,000)

#### **High Power Battery for Sonobuoy Applications**

Developing a very high-power (6500W), long-duration, safe and low-cost battery for US Navy ASW sonobuoys.

- Target markets: Naval operations, USVs, UUVs, survey vessels, oil exploration, salvage and other maritime operations in which high power is needed
- Proven, benchmarked, performance in the lab
- Safe, nonflammable and emits no toxic fumes
- Utilizes low-cost, earth-abundant materials

#### **High Energy Density Battery for Undersea Applications**

Developing an innovative very high energy density and safe seawater battery for undersea use.

- Target markets: Submersibles and Shallow Water Surveillance Systems, emergency backup power applications and as a power source for long-term sensors in a number of maritime industries
- Proven, benchmarked, performance in the lab

### **Ionic Conductive Membrane Technologies**

#### **Hydroxide Exchange Membranes for Alkaline Membrane Fuel Cells**

- High ionic conductivity (> 70 mS/cm at RT)
- Excellent mechanical strength
- Long durability (> 5000 hours in hot alkaline electrolyte)
- Low cost

#### **Redox Flow Battery Membranes**

- High ionic conductivity
- Extremely low ion crossover
- Low cost

#### **Li Metal Battery Membranes**

- Dendrite blocking
- High conductivity
- Polysulfide blocking

### **Separation Membrane Technologies**

#### **Hydrogen Production and Separation**

- High temperature compatible
- Hydrothermal stable
- High selectivity and flux
- Low cost

#### **Olefin Separation**

- High selectivity and flux
- High durability-stable in more than 1000 hrs of testing
- Low cost (<\$50/m<sup>2</sup>)
- Flexible and can be made in spiral-wound module

## **Products and Services:**

### **High Performance Long-life Air Diffusion Electrodes for Metal Air Batteries and Alkaline Fuel Cells**

Uses low cost catalyst and has better performance than precious metal catalysts, with over 15,000 hours running time demonstrated. High current capability.

### **Contract Research and Development Services**

### **Gas Permeability and Selectivity Test Services**



## **Sponsors:**

**ARPA-E • Department of Defense • Department of the Army • Department of the Navy • Department of Energy  
NASA • National Institutes of Health • National Science Foundation • NY-BEST • NYSERDA**