



NYSERDA Awards \$1.4 Million to Six NY-BEST Members to Develop Advanced Energy Storage Technologies

Projects to Add Jobs, Improve Technology and Develop Prototypes with New Forms of Batteries, Ultracapacitors, Fuel Cells and Related Technology

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The New York State Energy Research and Development Authority (NYSERDA) awarded a total of \$1.4 million to six companies engaged in researching and developing energy storage systems. Funding recipients are all members of the NY Battery and Energy Storage Technology (NY-BEST) Consortium.

Projects will add resiliency to the electric grid or provide increased energy efficiency to such products as hybrid cars, fuel cells or electronic devices.

The companies, located throughout New York State, will use the funding to turn energy storage technologies with proven technical feasibility into working prototypes. A working prototype is an essential step along the product commercialization path and increases a company's ability to attract additional investment.

"As Governor Cuomo continues to increase the resiliency of the state's infrastructure against extreme weather, energy storage projects of all sizes will play a vital role in helping us to do this using energy in the most efficient and reliable manner," said Francis J. Murray Jr., President and CEO, NYSERDA. *"NYSERDA is pleased to invest in these six partners and promote the next generation of energy storage technologies."*

Under the terms of these awards, each recipient must match NYSERDA's funding, leveraging NYSERDA's \$1.4 million with a total of \$2.2 million in additional private investment.

This is the second of three rounds of funding to help members of NY-BEST move promising technologies toward commercialization. NY-BEST is an industry-focused coalition working to establish New York as a global leader in energy storage technology for heavy-duty transportation, electric grid and other storage applications.

"NY-BEST members are performing world-leading research to commercialize new technologies that will benefit New Yorkers. Energy storage technologies produce economic, energy and environmental benefits and New York's energy storage industry is continuing to grow and thrive," said Dr. William Acker, Executive Director of NY-BEST. *"We applaud NYSERDA's continued commitment to the energy storage sector."*

Projects include:

- **Battery Energy Storage Systems (BESS) Technologies LLC (Albany), \$218,000** – Through collaboration with SUNY's College of Nanoscale Science and Engineering (CNSE) and Rensselaer Polytechnic Institute, BESS Technologies aims to develop and commercialize an electrode that incorporates graphene-based materials to create lithium-ion batteries that can store more energy and charge faster than those currently deployed. BESS, a startup from CNSE, expects that batteries with increased performance will significantly expand markets from power electronics to electric vehicles to electric grid storage. The project is expected to support five positions.



- **Bettergy Corp. (Peekskill), \$189,000** – Bettergy plans to improve and demonstrate a low-cost zinc air-flow battery that could be used for grid storage applications, including storing renewable electricity. The project is expected to create five jobs and attract additional private investment.
- **Custom Electronics Inc. (Oneonta), \$250,000** – The company plans to develop an ultracapacitor technology with increased energy storage potential. Ultracapacitors are energy storage devices that provide short bursts of power over very long lifetimes. Custom Electronics is seeking to market its technology in industrial power electronic applications and in hybrid vehicles, where it could augment conventional batteries by capturing energy generated through braking. If a product is commercialized, the company estimates up to 60 jobs could be created.
- **Electromotive Designs LLC (Ronkonkoma), \$250,000** – The company is working on a low-cost, easy-to-install hybrid-electric engine for buses and trucks using ultracapacitors manufactured by Ixus in Oneonta. The devices would capture regenerative braking energy to accelerate the vehicle from a stop, and will be tested by Verizon. The company reports that each bus that uses this system could displace approximately 500 gallons of diesel fuel per year and 6.5 tons of greenhouse gases.
- **Eos Energy Storage (Manhattan), \$250,000** – Eos is seeking to scale-up and commercialize a novel zinc battery technology whose low-cost, energy-dense and inherently safe design will reduce customer energy costs, defer expensive distribution system upgrades, and enhance power quality and grid resiliency. NYSEERDA funding will support field testing of Eos' first full-scale sub-module, the basic building block of its larger 1MW/6MWh Aurora battery. The project will take place in New York City in partnership with Con Edison, with the goal of demonstrating the benefits of various distributed energy storage applications.
- **Watt Fuel Cell Corp. (Port Washington), \$250,000** – Watt is building a prototype system capable of providing electricity and heat from a portable solid-oxide fuel cell. The project has applications for use in the military and for combined heat and power projects, including backup power during outages.

About NYSEERDA

NYSEERDA, a public benefit corporation, offers objective information and analysis, innovative programs, technical expertise and funding to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce their reliance on fossil fuels. NYSEERDA professionals work to protect our environment and create clean-energy jobs. NYSEERDA has been developing partnerships to advance innovative energy solutions in New York since 1975.

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