

NYSERDA grants helping two companies with energy plans

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The state's energy research agency is awarding \$700,000 to two Buffalo-area companies that are developing environmentally friendly technology to generate electricity while reducing the use of fossil fuels that produce pollution, officials said today.

The New York State Energy Research and Development Authority announced two grants to ENrG Inc. of Buffalo and TAM Ceramics of Niagara Falls for their development of clean energy power systems.

ENrG is working on fuel cell components, and is also working together with TAM on a project to convert waste heat to electricity.

The projects and awards are part of a larger program of \$7 million in incentives to 17 companies statewide for clean energy power. Projects that received funding include fuel cells, solar panels, wind turbines, energy storage systems, waste-heat-to-electric facilities, biogas systems and hydropower.

Nearly 40 companies applied for the competitive funding, but winning applicants had to show how the products improved on existing technology.

NYSERDA was created in 1975 to help New Yorkers increase energy efficiency, save money, use renewable energy and reduce their need for fossil fuels like oil. The state public benefit corporation offers information and analysis, programs, technical expertise, and grants, and also develops partnerships to promote innovative solutions.

"By investing in clean energy power technologies, we are not only helping to improve power reliability and reduce electricity costs, but we are also helping to grow the state's clean-energy economy," said Francis J. Murray Jr., president and CEO of NYSERDA.

"These promising projects can lead to new technologies that produce important economic and environmental benefits."

The larger of the two grants, for \$500,000, went to ENrG alone to pursue more manufacturing capacity and improve the performance of the ceramic parts it makes for fuel cells and other products. The company itself will invest another \$770,000 toward the project, for a total of nearly \$1.3 million.

The second grant, for \$200,000, will be shared by ENrG and TAM on an unrelated effort to improve the performance of a high-tech ceramic material that helps turn exhaust from an engine or other waste heat from manufacturing into electricity.

Founded in 2003, ENrG employs 14 in three Western New York sites, and uses technology licensed from Corning Inc. to make ceramic components for fuel cells.

Its primary product today, Thin E-Strate, is an ultra-thin but dense ceramic layer that works as a membrane for solid-oxide fuel cell makers, to keep materials separate and enable the conversion of electrochemical energy to generate power. It can also be used for a range of military and commercial purposes, such as superconductors, sensors and solar heaters.

"ENrG's typical customer knows they need a flexible thin ceramic membrane but face many challenges in acquiring it because of performance issues, cost and amount of time it takes to secure the product," said John A. Olenick, ENrG's president and CEO. "These two NYSERDA awards will permit ENrG to address all of these issues... and significantly grow this business."

Founded in 1906 in Niagara Falls, TAM Ceramics makes zirconia, titanate and zircon powders for high-temperature furnace linings, brake pads, protective coatings for molten metal casting and welding "consumables." It also offers processing services through its advanced materials business.

The company is developing a ceramic powder that can be used to create power, at hot temperatures, from waste heat from generators, cars or manufacturing processes. It's collaborating with ENrG to test whether TAM's material could be used in porous ceramic structures made by ENrG to make parts that help produce electricity from heat.

"The award from NYSERDA complements TAM Ceramics' pursuit of new renewable energy material technologies based on its successful history of advanced material developments," said George Bilkey, TAM's president and managing partner. "TAM Ceramics is able to take on this new project as we are able to leverage our installed ceramic processing equipment capacity to manufacture these materials in large volumes."

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George Bilkey, TAM Ceramics president and managing partner speaking at NYSEDA ceremony



George Bilkey, TAM Ceramics