

NEWS RELEASE



Governor Bob Taft

TAFT HAILS OHIO AS NATIONAL LEADER IN FUEL CELL TECHNOLOGY

Governor participates in dedication of Westerville Project and awards five Ohio companies with \$3.5 million in Third Frontier Fuel Cell Program grants

WESTERVILLE, OH. (November 15, 2004) – Governor Bob Taft today joined local officials and fuel cell industry experts to dedicate one of the nation’s first utility-scale fuel cell power plants, located at a substation in Westerville. The AMP-Ohio/City of Westerville Commercial Fuel Cell Demonstration project, a 2003 Third Frontier Project grant recipient, is a fuel cell power plant substation designed to feed power directly into a local distribution for general consumption, which will provide enough electricity to power more than 180 homes in the City of Westerville.

While at the ceremony, Taft also pledged to keep Ohio at the forefront of fuel cell technology, awarding nearly \$3.5 million in Third Frontier Fuel Cell Program (TFFCP) funds to five Ohio companies: NexTech Materials, Ltd. of Lewis Center; GrafTech International Ltd. of Parma; The Edison Materials and Technology Center of Dayton; Velocys, Inc. of Plain City; and MetaMateria Partners, LLC of Columbus.

“Ohio has been on the leading edge of fuel cell technology for several years, and with today’s installation in Westerville, the Buckeye State has jumped ahead and established its leadership as an industry pioneer,” Taft said. “Today’s event signifies that our Third Frontier investments in the fuel cell industry are succeeding and directly benefiting Ohio citizens. I am pleased to take part in this historic event and to award the next round of Third Frontier investments and keep Ohio at the forefront of fuel cell research, development and commercialization.”

Third Frontier Fuel Cell Program grants support the growth of Ohio’s fuel cell industry through collaborations that involve Ohio higher education institutions, non-profit research organizations and Ohio companies. The 2005 TFFCP award recipients, projects and collaborators include:

- **NexTech Materials, Ltd .** (Lewis Center, Delaware County) was awarded \$898,137 for its *Auxiliary Power for Transportation: High Power Density Solid Oxide Fuel Cells* project in which it will develop a self-supporting fuel cell for use in solid oxide fuel cells that is expected to achieve up to 5 times the power density of today’s state of the art cells. This fuel cell is intended for use in transportation and aerospace auxiliary power units. By 2009, sales of this product are estimated at \$12 million with the creation of over 100 jobs. Thereafter the market penetration of fuel cells is expected to increase rapidly and by 2015 sales could reach \$200 million. Collaborators on this project include SOFCo-EFS

Holdings, LLC; Edison Materials Technology Center; and NASA Glenn Research Center.

- **GrafTech International Ltd.** (Parma, Cuyahoga County) was awarded \$602,044 for its *Development of a Unique Graphite Gas Diffusion Layer for PEM Fuel Cells* project in which it will develop new permeable gas diffusion layer components based on natural graphite materials for use in PEM fuel cells. These components will be lower cost and higher performance and will improve the competitiveness of PEM fuel cells for use in automotive applications. Sales are expected to reach \$100 million by 2010 creating 125 to 150 new manufacturing and management jobs, growing to \$170 million and 250 jobs by 2015. Collaborators on this project include Chemsultants; Ballard Power Systems; and Battelle Memorial Institute.
- **Edison Materials Technology Center** (Dayton, Montgomery County) was awarded \$719,200 for its *Enabling Low Cost MEA Manufacturing for PEM Fuel Cells in Ohio* project in which it will develop and commercialize an improved manufacturing process for membrane electrode assemblies (MEA) for PEM fuel cells, rendering them thinner, more efficient and higher performing. Faraday Technologies developed the process technology. Edison Materials Technology Center (EMTEC) will provide market entry support and commercialization assistance. The market for MEAs is expected to be \$9 million in 2009 and \$40 million shortly thereafter. The EMTEC team expects to capture thirty percent of that market, which would lead to the creation of 100 to 150 jobs. Collaborators on this project include Faraday Technologies; PIA Group; and Case Western Reserve University.



Governor Bob Taft presents EMTEC with Third Frontier Award

- **Velocys, Inc.** (Plain City, Union County) was awarded \$899,068 for its *Microchannel Hydrogen Generator for Fuel Cells* project in which it will develop and commercialize a low cost fuel processor for fuel cell applications that will lower capital costs by reducing the size of process equipment as well as reduce operating costs. Initial market applications will be to the military and by 2009, revenue is expected to be on the order of \$40 million per year creating around 100 jobs. Collaborators on this project include Case Western Reserve University; Centennial Associates; Gibbard Research and Development; and Battelle Memorial Institute.
- **MetaMateria Partners, LLC** (Columbus, Franklin County) was awarded \$346,913 to develop a solid oxide fuel cell for SOFCo-EFS Holdings, an Ohio fuel cell system developer, and other fuel cell system integrators. The advanced cell will have twice the power output and lower manufacturing costs of cells being used today. MetaMateria Partners and The Ohio State University will use their nanotechnology expertise and will leverage work being funded by the U.S. Army to achieve the program goals. Initial sales will start in 2007 and are expected to reach \$1 to \$3 million by 2009. They also expect to add 20 new employees by 2009.

In 2003, AMP-Ohio and City of Westerville were awarded a Third Frontier grant of \$839,016 to install an advanced fuel cell power plant and demonstrate the viability and benefits of a utility fuel cell at a local electric utility substation. The 250-kilowatt fuel cell, manufactured by FuelCell Energy, Inc. and distributed by Caterpillar, generates power by converting hydrogen-rich fuel such as natural gas into electricity through an electrochemical process. The fuel cell does not combust fuel, thereby virtually eliminating harmful emissions from the plant, and its lack of moving parts make it a more reliable and secure power source.

Taft points to this project as an outstanding example of the Third Frontier's principles in action. "Two key tenets of the Third Frontier Project are to promote innovation and drive collaboration among private- and public-sector entities. AMP-Ohio and the City of Westerville, along with their corporate partners, have worked together to conceive, design, develop and execute a technological breakthrough that will revolutionize how power is delivered to Ohio citizens, and eventually, the American population at large."

Unveiled by Governor Taft in February 2002, the Third Frontier Project is a ten-year, \$1.1 billion initiative to expand high-tech research capabilities, promote innovation, encourage company formation and create high-paying jobs in the State of Ohio. It is the State's largest-ever, technology-based economic development investment, awarding more than \$220 million to Ohio-based companies, universities and research organizations to date.

Contacts: Jennifer Bartko (614.466.4133) or Bill Teets (614.466.2382), ODOD; or Orest Holubec, Governor's Office, at 614.644.0957.