August 6, 2009

NYSTAR Sci ☆ Tech News Bytes

Dear Friends,

The announcements below continue to show that New York State is a leader in advanced energy projects. These projects are also important for the future of economic development in our State. As always, feel free to contact us with your ideas. Write to: contact@nystar.state.ny.us

*—**Ed Reinfurt**, Executive Director of NYSTAR*

*Inside this issue:*



## Two NY Companies Receive Funding for Advanced Battery and Electric Drive Projects

President Barack Obama recently announced 48 new advanced battery and electric drive projects that will receive $2.4 billion in total funding under the American Recovery and Reinvestment Act. Two of these companies are located in New York State. Honeywell International in Buffalo and Pyrotek in Sanborn will receive money under this program.

Honeywell facilities in Buffalo and in Metropolis, IL will receive $27.2 million for production of electrolyte salt (lithium hexafluorophosphate (LiPF6)) for lithium-ion batteries.

Pyrotek will receive $11.3 million for production of carbon powder anode material for lithium-ion batteries.

According to the Department of Energy's press release: "These projects, selected through a highly competitive process by the Depart of Energy, will accelerate the development of U.S. manufacturing capacity for batteries and electric drive components as well as the deployment of electric drive vehicles, helping to establish American leadership in creating the next generation of advanced vehicles."

"If we want to reduce our dependence on oil, put Americans back to work and reassert our manufacturing sector as one of the greatest in the world, we must produce the advanced, efficient vehicles of the future," said President Obama.

http://www.energy.gov/news2009/7749.htm

## Con Edison Launches Smart Grid Pilot Program in Queens

*CNN Money*

Consolidated Edison Company of New York, Inc. announced that it is launching a $6 million smart grid pilot program in northwest Queens that will test how various technologies support efforts to modernize the electric grid. It will provide customers with more information about their energy usage, and help customers use energy more efficiently and save on their electricity bills.

Smart grids integrate information and communication technology into electricity generation, delivery, and consumption, making systems cleaner, safer, more reliable and efficient. Con Edison's 18-month demonstration project combines cutting edge technology with existing innovations that allow, for example, the utility to test and evaluate the company's response to customer use and power interruptions.

"New York City will be a model showing how smart grid technologies can work together in dense urban areas," said Kevin Burke, Chairman and CEO of Con Edison. "Smart grids will change the way we manage the grid, and can change the way customers manage their energy usage. Our vision is to identify grid innovations that can be reliable and cost effective, and provide increased flexibility for customers in the ways they make energy choices."

One of the innovations involves a distributed generation project with the CUNY to study how solar energy can be integrated into the NYC electric grid. The solar energy will be obtained from a photovoltaic system on the roof of LaGuardia Comm. College.

"With this 'smart grid' agreement, CUNY is partnering with Con Edison to create a roadmap for New York and an example for the nation as we move toward energy independence," said Chancellor Matthew Goldstein. "The University's faculty and researchers will continue to work closely with Con Edison to identify new solar and renewable energy opportunities."

http://money.cnn.com/news/newsfeeds/articles/marketwire/0524758.htm

NYSTAR's internationally recognized programs spur the development, design and manufacture of new technologies in a wide range of areas, including nanotechnology, electronics, life sciences, information technology, materials processing, and many others.

www.nystar.state.ny.us

## Spotlight on NY's Facilities

The **Ceramics Processing Facilities and Pilot Plant** at Alfred Univ. has "equipment for slurry preparation includes ball mills, high-intensity mixers, and ultrasonicators. The ceramics pilot-plant includes a high-pressure filter press, spray drier, pug mill, jigger, ram press, low-pressure injection molding machine, tape caster, slip casting facilities, and an automated dry press.

Numerous furnaces and kilns are available for heating parts in ambient conditions, under controlled atmosphere and at high pressure. Larger-scale equipment includes a roller-hearth tunnel kiln, a HP630 hot isostatic press, a commercial-grade six-burner, pressure-controlled combustion kiln, and a Bickley furnace.

For assistance in using this facility contact: Jason Doling at NYSTAR at 518-292-5700.

**www.nystar.state.ny.us**

NYSTAR's **Funding Opportunity Newsletter** (FON) provides information on funding opportunities for high-technology academic research and economic development in NYS. To see the newsletter: http://www.nystar.state.ny.us/fon/funding.htm

## Students Work to Make 100 mpg Car a Reality

*Cornell Chronicle*

By summer's end, what looks like several pieces of a car on the floor of Upson Hall's GM Laboratory will become a full-size, fuel-efficient, plug-in hybrid vehicle.

A group of Cornell students are working day and night to make that happen. They're part of Cornell's 100+ MPG Team, participating in the international Progressive Automotive X Prize Competition to design, build and race a car that gets the equivalent of 100 miles to the gallon. The winners will share a $10 million prize.

About 15 students, including team leader Matt Robison '10, are staying in Ithaca over the summer to hit a Sept. 1 goal of getting the car, named Redshift, built and running for on-road testing. Just a few weeks ago, they submitted a final report to Automotive X Prize organizers that details the design of their competition vehicle, and a plan showing the feasibility of manufacturing and selling 10,000 units of the car in its final, marketable form -- a key component of the competition. By Aug. 20, the Cornell team will receive word whether their written report has been accepted -- then off to the races they go in 2010.

The X Prize Foundation announced its list of 111 teams accepted into the contest. The Cornell entry will be judged in the mainstream class, meaning the car must meet such specifications as seating at least four people, having four wheels and performing 0-60 mph in 15 seconds. —Anne Ju

http://www.news.cornell.edu/stories/July09/AXPCar.html

## Upcoming Events

**August 13, 2009 - Albany, NY**
Tech Valley Energy Forum: National Grid CEO Steve Holliday
http://cnse.albany.edu/

## ☆ NYSTARS ☆

NYSTAR salutes our own **Breanna Day**, a NYSTAR intern and a rising sophomore at Dartmouth College pursuing a degree in Engineering Sciences with a minor in Anthropology. In the fall she will be going to Barcelona for ten weeks to participate in a Language Study Abroad program at the University of Barcelona to improve her Spanish language skills. She was a member of the executive board of Dartmouth's chapter of the National Society of Black Engineers. Breanna was also a member of Habitat for Humanity where she helped research grants to raise the $100,000 needed for the chapter to build their next house which has a sustainable design. She is currently working to create a link between those performing life science research and companies which need researchers throughout New York State.

**YOUNG INNOVATORS**

## Rochester Students Study Beach Closings

*Democrat and Chronicle*

Wading between the swimming area and the pier at Ontario Beach Park, the lake water was above Lyric Price's knees when the smell started to get to her.

Price, 12, was one of about 30 Rochester middle-school students testing the water, in hip-waders and by rowboat, as part of the weeklong Get Real! Science Action Camp put on by the University of Rochester's Warner School of Education. UR graduate students worked with the children, who came from the Harley School's Horizons Student Enrichment Program for city students and the Carlson MetroCenter YMCA.

Price was testing the temperature, pH balance and dissolved oxygen levels while collecting samples to test for algae and bacteria concentrations later in the week.

But for a moment, Price was more concerned with scent than with science. Relaying a reading to another student on the beach, she stopped to catch her breath.

"I've dissected pig intestines and this was way worse," said Carli Moochler, a master's student who waded in with two middle-schoolers.

Water quality measurements have forced the county health department, which relies on a formula and daily testing, to close the swimming area about 70 percent of the season so far, University of Rochester doctoral student Michael Occhino said.

The project asks the students a simple question, he said: Why is this beach closed so often and what can we do about it?

—Nestor Ramos

http://www.democratandchronicle.com/article/20090729/NEWS01/907290351/Rochester+students+study+beach+closings

**Ed Reinfurt**
*Executive Director*
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