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Andrew M. Cuomo - *Governor*

Governor Cuomo Announces Funding for Smart Grid Projects to Reimagine New York'S Electric Grid for a New Reality

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Projects to Add Resiliency and Efficiency to Electric Grid, Improve Power Delivery in New York, Assist State in Preparation for Severe Weather Events

Albany, NY (February 3, 2014)

Governor Cuomo today announced $4.3 million in awards to researchers seeking to develop or research new techniques that add resiliency and efficiency to the state's electric grid as part of the State's efforts to reimagine New York's vital infrastructure for a new reality. These "Smart Grid" technologies will help re-engineer the State's electric grid by providing innovative methods to add clean energy to the grid, enhance grid performance, reduce environmental impacts and energy consumption, and lower costs of transporting power to customers.

"The major storms over the past few years taught us the importance of improving the performance of utilities and strengthening the resiliency of our electric grid for the future," Governor Cuomo said. "As part of our efforts to reimagine the State's vital infrastructure for a changing climate, we are investing in smart grid projects to advance new and emerging technologies that will help make New York's electric grid more resilient and efficient. These improvements move our state one step closer in our effort to provide more reliable and affordable services and further reimagine New York's electric grid for a new reality."

The projects were awarded funding from the New York State Energy Research and Development Authority's (NYSERDA) Electric Power Transmission and Distribution Smart Grid Program.

In order to qualify for funding, recipients had to propose projects that improve the reliability, efficiency, quality, and overall performance of the electric power delivery system in New York State. Proposals were required to demonstrate significant statewide public benefit and quantify all energy, environmental and economic impacts.

"These technologically-advanced projects will further the state's effort to modernize the electric grid and reduce the cost of delivering power in New York State," said Richard Kauffman, Chairman of Energy and Finance for New York State and Chairman of NYSERDA. "By fostering innovative smart grid projects today, the state will help New Yorkers meet the energy and resiliency needs of tomorrow."

"New York is a hub for research and development, and these projects are all examples of how innovation can improve power transmission technology, as called for by Governor Cuomo," said John B. Rhodes, President and CEO, NYSERDA. "These projects will help make the grid stronger and more efficient while reducing the cost of energy."

Projects across the state include:

Capital Region

Recognizing the value of using phasor measurement units to improve grid performance, Rensselaer Polytechnic Institute plans to study methods to improve the power system state estimation, with focus on methods to improve accuracy of this measured data, to improve grid operations and controls. Phasor measurement units are devices to study detection and mitigation measures for improving the reliability of the state's power grid. Funding: $150,000

Central New York/North Country
In collaboration with Electric Power Research Institute (EPRI), NYPA and General Electric, Georgia Tech Research Corp. will demonstrate the use of a "setting-less" protection system at two major upstate power substations. Funding: $900,000

Long Island
Brookhaven National Laboratory, in collaboration with the EPRI and the Long Island Power Authority, will launch a study to characterize the grid impacts of utility-scale photovoltaic systems installed on transmission or sub-transmission networks simultaneously with other renewable generation on neighboring distribution networks. While a large solar power system presents opportunities for clean-energy power generation, the intermittent nature of solar power could cause problems with grid stability and control, particularly when other intermittent generation sources are installed on neighboring distribution networks. This study will aid New York State utility companies in deploying increased amounts of solar generation by understanding and being able to mitigate such grid impacts. Funding: $280,000

Mid-Hudson
NYPA, working with Hydro-Quebec, will study the use of grid control devices based on phasor and other advanced measurement and control technologies to improve grid management and reliability. Funding: $500,000

New York City
Con Edison, working with NYU-Poly, Smarter Grid Solutions Inc. and NYU-Center for Urban Science and Progress, will investigate a number of techniques and technologies to develop microgrid applications in the New York metro area that can operate in parallel with the electric grid or independent of the grid, such as a power outage. Such technology solutions could derive energy, environmental and economic benefits, as well as increased resiliency during a variety of potential contingencies and emergencies. Funding: $663,000

North Country
NYPA, working with EPRI, National Grid and the New York Battery and Energy Storage Technology Consortium (NY-BEST), will evaluate and install an advanced energy storage system at SUNY Canton to moderate and balance the shifts in power from a utility scale wind turbine on the SUNY campus, reducing the impact of power fluctuations on the local distribution network. This project will demonstrate new and innovative technology and will generate valuable learning and experience in the application of energy storage systems to support the integration of renewables into the New York State distribution grid. Funding: $425,000

Southern Tier
Bigwood Systems Inc, working with New York State Electric and Gas, is developing a software tool to be used by utilities to reduce the time and cost of interconnection studies necessary to connect new distributed energy resources, such as solar power, to the electrical grid. Funding: $90,000

Western New York
EPRI, working with National Grid, the University of Buffalo and the Buffalo Niagara Medical Campus, will study the feasibility of a microgrid system in that city. Funding: $335,000

Statewide
Additional funding was provided to EPRI, Georgia Tech Research Corp. and EnerNex LLC for multiple projects around the state. EPRI will also work with NYPA, Con Edison, and Clarkson University to test a new class of power line coating to reduce ice- and storm-related damage. Georgia Tech will develop techniques for measuring grid resiliency during severe weather. EnerNex will work with the New York State Reliability Council and the New York State Independent System Operator to utilize newly installed phasor measurement units. Total funding: $1 million.

To date, NYSERDA’s Smart Grid program has provided $24 million in awards for research, product development and demonstration projects, leveraging $31 million in private sector funding and $59 million in federal funding. For more information on NYSERDA's smart grid program, visit nyserda.ny.gov/smartgrid.

The development of smart grid technologies is a goal of the Energy Highway initiative, which was designed to ensure that New York's energy grid is the most advanced in the nation and promotes increased business investment in the state. The Blueprint also provides for as much as 3,200 megawatts in new generation and transmission capacity through such strategies as additional renewable energy production, modernizing power plants, and investing in transmission upgrades. For more information on the Energy Highway Blueprint, visit www.nyenergyhighway.com.