

Long Island Power Authority Long Island Smart Energy Corridor

Project Description

The Long Island Power Authority (LIPA) is teaming with Stony Brook University and Farmingdale State College to create a Smart Energy Corridor located along Route 110 in Melville, South Farmingdale, and Huntington, New York. The demonstration project will integrate advanced metering infrastructure (AMI) technology with automated substation and distribution systems to reduce peak demand and energy costs while improving the ability to identify and respond to outages. AMI will be installed at 500 consumer locations, 250 will be residential. Data collectors will be installed along the Corridor to facilitate network communications. LIPA will install digital control and communications devices on 25 capacitor banks and will also install devices that automate monitoring and control of 18 underground feeders. A key aspect of this project is to evaluate the impact of a range of variables on customer behavior and consumption, including alternative tariff structures, provision of varying levels of information and analytical tools, and outreach and energy automation for a sample of participating customers. Demonstration projects at the Farmingdale campus will include live residential and commercial models showing how intelligent devices can enable customers to understand and control their usage and integrate distributed renewable energy. SUNY Stony Brook will investigate cyber security issues and develop mechanisms to leverage data from smarter devices.

Goals/Objectives

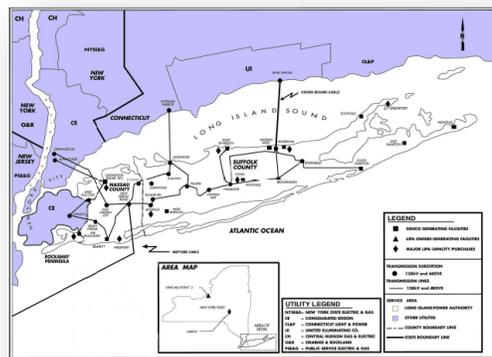
- Facilitate the transition from current power transmission and distribution system technologies to advanced technologies
- Reduce peak demand, operation and maintenance costs, and the frequency of power interruptions
- Improve system performance, reliability, and power flow control

Key Milestones

- Underground pad mounted switchgear implemented (October 2012)
- Parking lots with solar photovoltaic panels and plug-in hybrid electric vehicle charging stations installed (February 2013)
- Construction of commercial and residential models completed (February 2013)

Benefits

- Energy costs reduced
- Greenhouse gases reduced
- Power quality improved
- Dependence on foreign oil reduced



CONTACTS

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PARTNERS

Farmingdale State College
SUNY Stony Brook

PROJECT DURATION

2/5/10-2/4/15

BUDGET

Total Project Value
\$25,293,735

DOE/Non-DOE Share
\$12,496,047/\$12,797,688

EQUIPMENT

Residential and commercial meters
Capacitor controllers
PMHs

DEMONSTRATION STATES

New York
CID: OE0000220

Managed by the National Energy Technology Laboratory for the Office of Electricity Delivery and Energy Reliability



U.S. DEPARTMENT OF
ENERGY

Office of Electricity Delivery and Energy Reliability



American Recovery and Reinvestment Act
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Smart Grid Demonstration Program

