

Long Island Power Authority Long Island Smart Energy Corridor

Project Description

The Long Island Power Authority (LIPA) is creating a Smart Energy Corridor located along Long Island, New York business Route 110. The Corridor work includes the 1) installation of smart meters; 2) upgrade and enhancement of monitoring equipment at three Corridor substations; and 3) the installation of additional distribution automation equipment. The project will evaluate the impact on customer behavior and consumption with alternative tariff structures, information and analytical tools provided. The project will demonstrate how distribution automation could reduce the number and duration of unplanned interruptions at reduced cost and with increased reliability. Stony Brook University is developing expert systems software in support of LIPA's automation thrust, with cybersecurity capabilities. Farmingdale State College is supporting the project with public outreach through on-campus demonstration of small-scale wind, solar, plug-in hybrid vehicles (PHEV) and fuel cells. An energy efficient model home is under construction and will be open to public tours to attract visitors to the campus and to promote energy efficiency concepts.

Goals/Objectives

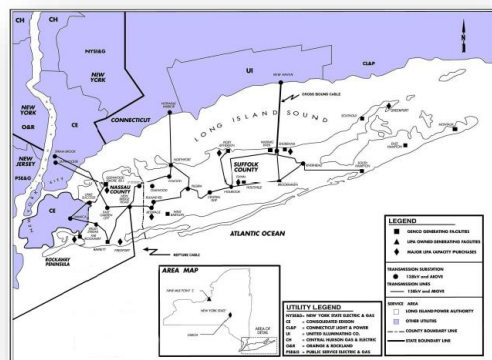
- Facilitate the transition from current power transmission and distribution system technologies to advanced technologies
- Reduce peak demand, operation and maintenance costs, and the frequency of power interruptions
- Improve system performance, reliability, and power flow control

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)
- General advanced metering infrastructure (AMI) design and installation completed (March 2013)
- Interim Technology Performance Report Submitted (June 2014)
- Cybersecurity testing/modeling completed (January 2015)
- Data Collection & Analysis completed (January 2015)
- Stony Brook cybersecurity modeling completed (January 2015)

Benefits

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



CONTACTS

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PARTNERS

Research Foundation of SUNY at Farmingdale
The Research Foundation of SUNY at Stony Brook

PROJECT DURATION

2/5/2010–2/4/2015

BUDGET

Total Project Value
\$25,293,801

DOE/Non-DOE Share
\$12,496,047/\$12,797,754

EQUIPMENT

Residential and commercial meters
Capacitor controllers
Padmounted housing gear
Switches
Central Control Units
Radios and Antennas
In-home display devices and gateways

DEMONSTRATION STATES

New York

CID: OE0000220

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