

**NATIONAL GRID  
SMART GRID PROPOSED PILOT  
FACT SHEET – March 2009**

A smart grid is an ‘intelligent’ electricity distribution network that uses two-way communications, advanced sensors, and specialized computers that can help reduce customers’ energy use, facilitate the connection of distributed generation facilities to the system, assist in the integration of renewables onto the electricity system and enhance system reliability.

National Grid has been working on implementing Smart Grid technology for more than six months. Its proposal is more robust and innovative in scope than most in New England as it calls into play electricity distribution line automation, smart meters, customer appliances, new pricing, billing options, and web-based information.

This pilot gives National Grid an opportunity to partner with customers to assess new energy technologies and their capacity to help create a more efficient, environmentally responsible and cost-effective modern grid that will put customers in the driver’s seat by giving them more and better energy information, automation, savings and control over how they use energy.

**FACTS**

- National Grid’s two-year pilot to implement and study smart grid applications in Worcester, Mass. is largest and most comprehensive in New England involving 15,000 customers
- The project covers 30 square miles in the Webster Square and Tatnuk Square, Airport Hill, and Northwest area of Worcester covering approximately 540 streets.
- The project will cost \$57 million and is subject to approval by the Massachusetts DPU.
- More than 100 National Grid employees, contractors, vendors will be involved in the pilot
- 165 miles of electricity distribution lines are engaged for the pilot
- Approximately 15,000 smart meters will be installed involving 45,000 residents

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- More than 1,000 home display units to be installed in customers' houses.
- 66 percent of electricity distribution transformers will be monitored
- 30 existing capacitor banks -- used to control voltage -- will have updated controls added ;12 new capacitor banks with controls will be added
- 17 existing reclosers will have updated controls added;7 new reclosers with controls will be added. A recloser is a switch that works much like an automatic circuit breaker that protects main lines from an outage. A recloser can automatically restore service in the event of a minor or temporary fault, such as a tree limb falling onto a line.
- 9 new tie switches – connects electrical circuits or lines together to help restore power using electricity from an adjacent line
- 15 feeder (power line) monitors will be added