



NSTAR ELECTRIC *ENERGY STAR® Benchmarking Initiative*

The Company

NSTAR is an investor-owned electric and gas utility in Massachusetts serving 1.3 million customers. NSTAR was recognized by the U.S. Environmental Protection Agency (EPA) in 2005 as an ENERGY STAR® Partner of the Year for Excellence in Promoting Superior Energy Performance through its Benchmarking Initiative.

Goals and Objectives

NSTAR has a successful 20-year track record of delivering energy efficiency programs in the commercial and industrial (C&I) market, including the Business Solutions Program which provides technical assistance, prescriptive incentives, and custom incentives to promote efficiency improvement.

NSTAR developed the ENERGY STAR Benchmarking Initiative to explore how benchmarking using EPA's energy performance rating system in Portfolio Manager could be leveraged to drive greater participation in existing programs. The goal was to shift customer focus from one-time efficiency upgrades toward ongoing, measured improvements in building energy performance. It began as a pilot initiative and has continued because of its success in increasing participation in existing incentives programs.

Portfolio Manager is used as a tool for engaging customers in developing a strategic approach to energy management by considering a whole-building approach to facility energy consumption and savings opportunities. It is also a tool for NSTAR to work collaboratively with its customers for sustained energy efficiency improvements since customers agree to re-benchmark, tracking energy consumption and savings opportunities over time.

Description

The ENERGY STAR Benchmarking Initiative serves 15-25 customers each year and provides:

- Training and technical assistance in using Portfolio Manager to measure facility energy performance and track ongoing improvements.
- Technical assistance to identify and select cost-effective energy efficiency opportunities.

- Guidance to match selected projects with NSTAR incentives that are available through the existing thirteen different C&I programs.

There are three key elements to NSTAR's successful program delivery:

- The program is delivered as a turn-key operation by two implementation contractors, with oversight management provided by NSTAR staff. Implementation contractors contact the customers, conducting training for customer staff, produce a facility assessment, identify savings opportunities and identify appropriate incentives.
- NSTAR ensures cost-effective use of program resources by providing a one-time detailed training and technical assessment for each participating customer. One explicit goal is for customers to apply their new skills to conduct assessments of other facilities in their portfolio.
- The ENERGY STAR Benchmarking Initiative complements NSTAR's existing incentive programs matching projects with incentive offerings.

▶ Target Customers

NSTAR targets mid-size customer facilities (over 200 kW) that are eligible to receive an EPA energy performance rating. While mid-size customers are targeted, other customer classes, both large and small, may also participate in the program. Program administrators focus on customers whose billing records indicate efficiency opportunities, and who have historically had limited participation in NSTAR's energy efficiency programs. To encourage participation program administrators work with a variety of contacts at the facilities including the customer's business manager, building engineers, and facilities maintenance staff.

▶ Marketing/Outreach

Recruitment is initiated by NSTAR Account Executives and Program Managers who encourage their customers to participate. Telephone outreach is conducted to targeted customers by the implementation contractors, sometimes following an initial contact by the NSTAR program manager. Specially developed marketing materials facilitate recruitment efforts. Customer participation guidelines were developed to outline program offerings and customer responsibilities.



► Process

This ENERGY STAR Benchmarking Initiative uses the EPA energy performance rating as a means for motivating customers to undertake whole building performance improvement. Under NSTAR's management, implementation contractors provide a variety of services for participants.

The services provided include customer recruitment, benchmarking training for customers, and on-site customer training that includes data entry to produce a report of their facility. The program process follows these steps:

Measure Energy Performance

Customers receive a one-time in-depth training in using Portfolio Manager to benchmark their facility. Customers are then trained on-site with their own facility data so that their staff is equipped to continue benchmarking, and apply lessons learned to their other facilities.

Identify Opportunities

An Energy Efficiency Opportunity Assessment (EEOA) is developed by the implementation contractor and provided to the customer. The assessment identifies operations and maintenance measures and capital improvement measures to reduce energy costs for the building. The EEOA includes all potential measures and analysis of all fuel sources. The EEOA presents an Action Plan and reports a customized strategy to assist the end-user in prioritizing improvements. It presents savings and estimated payback by measure. Next steps are identified for the customer, including identification of available NSTAR incentives to offset customer costs for implementing projects. Incentives are offered through the following programs:

- Business Solutions offers comprehensive incentives covering up to 75% of total project cost, prescriptive incentives covering a variety of common energy-efficient technologies, engineering services and commissioning.
- Small Business Solutions offers upgrades to light fixtures & controls, HVAC tune-ups, and refrigeration controls for NSTAR C&I customers with a demand of less than 200 kW.
- Custom Program for high-efficiency gas technologies offers incentives for the incremental cost for dehumidification, boilers and furnaces, water heaters, combustion controls, chillers and waste heat recovery.

- Other programs provide prescriptive incentives for premium efficiency motors, fryers, infrared heating equipment, and water heaters.

Provide Ongoing Support

NSTAR provides ongoing support to customers to motivate them to participate in the existing incentive programs. NSTAR supports implementation by working with contractors to monitor the impact of efficiency improvements, and suggests continuous energy management system improvements.

Track Energy Use

NSTAR encourages re-benchmarking using Portfolio Manager to track energy performance over time and document the results of this holistic approach to efficiency improvements.

Results

NSTAR continues to promote this initiative to work with its customers to increase utilization of its existing incentive programs through benchmarking.

Achievements to date (2003-2008):

- 107 buildings totaling 20.4 million square feet have been benchmarked across all eligible space types.
- 70% of participants have taken action to improve performance by proceeding with an in-depth assessment, changing operational practices, or implementing an efficiency upgrade.
- 52% of participants implemented at least one measure identified in the in-depth assessment.
- 21% of participants have applied for incentives from the Business Solutions Program.
- 19% have implemented comprehensive improvements.
- 27% of participants have re-benchmarked their facilities.

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