

MIT Efficiency Forward exceeds electricity reduction goal



All-day forum at MIT to promote regional energy efficiency objectives

January 11, 2011

Contact

Jessica Holmes, MIT News Office

holmesj@mit.edu

617-253-2702

Jessica Holmes, MIT News Office

holmesj@mit.edu

617-253-2702

CAMBRIDGE, Mass — Through diligence and effective collaboration with NSTAR, MIT has exceeded the first-year energy savings goal of Efficiency Forward by 30 percent. [Efficiency Forward](#) is a ground-breaking, multi-million dollar energy conservation and efficiency initiative launched by MIT and NSTAR in 2010 with a first-year goal of achieving campus-wide energy savings of 10 million kilowatt-hours. The actual reduction amount for the first year came in at an impressive 13 million kilowatt-hours.

“When MIT launched Efficiency Forward last year, they set aggressive goals for confronting climate change and establishing energy efficiency as their ‘first fuel’,” said Tom May, NSTAR Chairman, President and CEO. “MIT surpassed the program’s first-year goal by taking aggressive action across their campus and utilizing every NSTAR energy-saving tool available to them.”

MIT Efficiency Forward is a first-of-its-kind program with a utility company and is the single largest energy efficiency program NSTAR has developed with a customer. The program is investing nearly \$14 million over three years, with an innovative funding strategy that leverages funds from MIT, NSTAR incentive payments, and reinvestment of energy savings.

“We’re delighted with today’s announcement of our strong progress towards MIT’s energy efficiency goals,” said Susan Hockfield, MIT President. “Efficiency Forward is demonstrating the rapid efficiency gains we can achieve by inspiring broad participation across our community. In this effort, NSTAR has been a vital partner, and we hope the model of our on-going collaboration will spur other organizations to seize the opportunities of energy efficiency.”

MIT has committed to a goal of reducing annual electrical use on campus by at least 34 million kilowatt-hours within three years – equal to 15 percent of MIT’s current electricity use and approximately the same amount of electricity used by more than 4,500 Massachusetts home a year. The total estimated savings over the lifetime of the efficiency measures is estimated in excess of \$50 million. MIT and NSTAR designed Efficiency Forward to create a new model for enhanced utility efficiency programs to support the Massachusetts Green Communities Act and the state’s desire to make efficiency competitive with new-source generation.

In the first year of the Efficiency Forward initiative, MIT undertook numerous steps toward reducing energy use

on campus. Since May, when the program was initiated, MIT has created a campus-wide lighting retrofit project, implemented a project to reduce a dorm's fan energy by 40 percent and completed two high-performance, low-energy-use capital projects. The Koch Institute for Integrative Cancer Research and the new Sloan School of Management incorporate innovative heat-recovery strategies, high-efficiency building envelopes and heating and cooling methods that significantly reduce energy consumption.

The Sloan School is estimated to use 45 percent less energy than a similar building and the Koch Institute is estimated to use 30 percent less energy than a typical lab building. Both are candidates for a Leadership in Energy and Environmental Design (LEED) Gold rating. The next phase of Efficiency Forward will include projects in the areas of demand control ventilation, compressed air, vacuum systems, data-based commissioning, and additional fume hood face-velocity reduction.

Today, MIT President Susan Hockfield and NSTAR CEO Tom May are hosting "Efficiency Forward: Partnering for Success," a forum to recognize the important role energy efficiency plays in Massachusetts's clean energy economy and to celebrate the strong progress of the MIT and NSTAR collaboration. A key feature of the Forum being held on the MIT campus is a workshop for local business, community, and university leaders to support broader adoption of large-scale, energy efficiency programs in Massachusetts.

Our approach has been recognized and strengthened by two generous gifts from MIT alumni totaling \$1.5 million to enable implementation of key pilot energy conservation measures. Their gifts are an innovative investment in MIT that allows the impact of the initial gifts to grow for years to come. Jeffrey Silverman '68 GM of Chicago has donated \$1 million, creating the Silverman Evergreen Energy Fund. The fund will enable energy conservation projects focusing on building lighting and ventilation measures that offer substantial impacts on reducing energy use, costs, and greenhouse gas emissions on MIT's campus. The Silverman gift is a true investment in MIT. Investing \$1 million in three projects is estimated to save MIT approximately \$350,000 annually in reduced energy use, thereby providing a payback on that investment in approximately three years. Via the Silverman Evergreen Energy Fund, MIT will be able to re-invest and leverage the measured and verified savings from this round of projects into additional energy conservation measures. David Desjardins '83 SB — also passionate about campus energy issues — has donated an additional \$500,000 for strategic energy conservation and efficiency investments on campus. These early gifts were catalytic in establishing the foundation for our successful partnership with NSTAR and the establishment of MIT Efficiency Forward.

About NSTAR and MIT

NSTAR is the largest Massachusetts-based, investor-owned electric and gas utility. The company transmits and delivers electricity and natural gas to 1.4 million customers in Eastern and Central Massachusetts, including more than one million electric customers in 81 communities and 300,000 gas customers in 51 communities. For more information, visit www.nstar.com.

The Massachusetts Institute of Technology is dedicated to advancing knowledge and educating students in science, technology and other areas of scholarship to serve the nation and world. MIT's commitment to innovation has led to a host of scientific breakthroughs and technological advances, and the Institute is presently engaged in a major effort to address the global challenges of climate and energy. For more information, visit web.mit.edu.