

# McGlynn Elementary & Middle School

**Location** Medford, Massachusetts

**Description** Municipality owned turbine sited at an urban elementary and middle school complex

**Annual electrical consumption**  
1,000,000 kWh

**Major load center** HVAC

**Average wind speed** 12 mph

**Wind incentives** Massachusetts Renewable Energy Trust LORI grant, Massachusetts Energy Consumers Alliance grant, Clean Energy Choice grants through National Grid Green-up Program, Annual Renewable Energy Credits, State Appropriation General Laws, Chapter 312 of the Acts of 2008

**Current utility rate** 15 cents

## Mayor gives the gift of wind power to a local school

Medford, Massachusetts is a thriving residential and business community with the Boston skyline as its backdrop. This small city is home to over 55,000 residents and a university.

In 2004, Mayor Michael McGlynn created the Medford Clean Energy Committee in an effort to become a municipal leader in the use of clean power. Through this effort, the city identified a wind turbine as an ideal solution to meet its 21st century goals of energy independence.

**“People have been calling from around the country—Michigan, Washington and California—to hear about our success story of installing a community sized turbine at our city’s school.”**

—PATRICIA BARRY, DIRECTOR OF ENERGY AND ENVIRONMENT FOR MEDFORD, MASSACHUSETTS

The enthusiasm for the project became widespread when the community identified McGlynn Elementary and Middle School as the beneficiary of the proposed wind turbine. City councilmen, business owners, school administrators, parents, and students alike were excited about the cost benefits and learning opportunities that a wind turbine could bring.



### The right fit for Medford: Northern Power™ 100

The Medford Clean Energy Committee held public information and planning sessions and invited over 600 residents whose properties abutted the school grounds, and there were no vocal opponents to the project. Medford chose the Northern Power 100 for the schools because it had:

**AN APPROPRIATE DESIGN** The low height profile, elegant design, and quiet operation ensures that the school's neighbors would not be adversely affected.

**EDUCATIONAL OPPORTUNITIES** The Northern Power 100's SmartView web monitoring program tracks energy output, carbon emission offsets, cost savings, and other historical data that can be accessed through the web in classrooms or in students' homes. Medford's teachers can use the information to help children learn about the powerful technology in their own backyard.

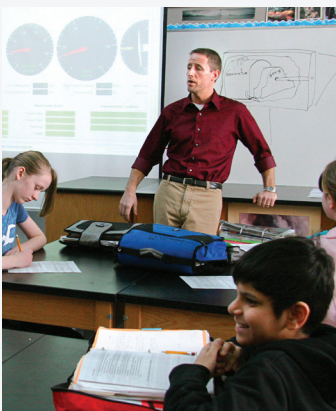
#### Results\*

Energy produced per year	170,000 kWh
Percentage of electrical needs met	10%
Electricity savings	\$25,000
Economics	5-to 7-year payback
Carbon emissions offset	110 tons per year**

\*These are projected results based on average wind speeds in a specific area. Wind speeds vary and therefore, actual results may vary.  
 \*\*CO<sub>2</sub> offset estimated by using EPA's eGRID 2007

#### The whole community celebrates

Although it was a smooth planning and quick construction process once the project was underway, Patricia Barry, the MCEC, Mayor McGlynn, and the whole community couldn't wait to see their turbine installed. The schools held a large and celebratory assembly featuring student essays about the environment and renewable energy in honor of the ribbon cutting as reporters and camera crews from around Massachusetts chronicled the momentous occasion. With his eye to the future, Mayor McGlynn is confident that this event was just the beginning of the turbine's success story.



**“The opportunity with wind for schools is not only to educate tomorrow’s leaders about energy and the environment, but also to gain real savings that can translate to teacher positions, arts programs, and facility improvements and even other renewable energy projects.”**

—MICHAEL J. MCGLYNN, MAYOR OF MEDFORD, MASSACHUSETTS



Feasibility and engineering services for the Medford installation were performed by Sustainable Energy Developments (SED). Installation services were provided by Cullen Electric.

CS-0910