



# Massachusetts Technology Collaborative

Green Schools Initiative

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## Massachusetts Green Schools Initiative

- Pilot Initiative
  - Partnership with Mass. Dept. of Education
  - 16 pilot schools selected to participate
    - Broad geographic distribution
    - New schools and major renovation/addition projects
    - Variety of school types (elementary, middle, high school, voc. tech.)
    - MTC funding for pilot schools
      - Up to \$130,000 in design funding
      - Up to \$500,000 in construction funding
    - Dept. of Ed. to add 2% to total facilities grant
    - Requirements
      - Exceed state energy code by 20%
      - Use Mass-CHPS as a design guide
      - Maximize utility energy-efficiency rebates
      - Basic commissioning
  - 38 Feasibility study grantees





## Preliminary Data

- Energy modeling predicts that on average pilot projects will be 34% more efficient than code compliant schools
- Projected savings per project average \$66,000/year
- Utility rebates average \$119,000 per project



Woburn High School  
Architect: Tappe Associates



# Somerville – Michael E. Capuano Early Childhood Center

- Classroom day-lighting**
- Efficient HVAC system**
- 35 kW PV system installed on roof  
and small wind turbine**
- Use of spray-foam insulation**
- Improved indoor air quality**
- 43% reduction in electrical use**
- 24% reduction in natural gas use**
- 39% annual energy cost reduction  
(about \$60,000 saved annually)**
- 26% building water use reduction**
- 56% site water use reduction**





# Whitman-Hanson Regional High School

- School expected to save 39% over the State Energy Code
- Over \$400,000 in utility rebates anticipated
- Projected annual operating costs savings of \$100,160
- Projected annual electrical savings attributed to renewables and energy efficiency measures to be 820,439 kwh/year.
- Will install roughly 59 kW of renewable energy capacity (PV and wind).
- Graywater recycling (using a 20,000 gallon underground storage tank that will collect rainwater). Zero potable water to be used for sewage conveyance.
- Overall 62% potable water use reduction
- Cool roof



# For More Information...

Go to:

Massachusetts Technology Collaborative website:

**[www.masstech.org](http://www.masstech.org)**