Christine Joyce

From: Dean Charter
Sent: Thursday, October 31, 2013 2:58 PM
To: Manager Department
Cc: Pamela Cady; Andrea Ristine; Information Technology Department
Subject: Power Point slides for BOS 11/4 meeting
Attachments: 6% x 6-14 Program.pptx

Greetings,

Attached is the Power Point for the presentation GAB will be making to the Board on Monday night. This item is already on the agenda. Can IT load it into the computer for us?

Thanks

Dean

Board of Selectmen Meeting
Nov 4, 2013

Green Advisory Board
6% by 6/14
Behavioral Change Program

Green Communities Agreement:

√ Criterion 1 : Zone for renewable energy generation

√ Criterion 2 : Permitting for energy facilities

(√) Criterion 3 :

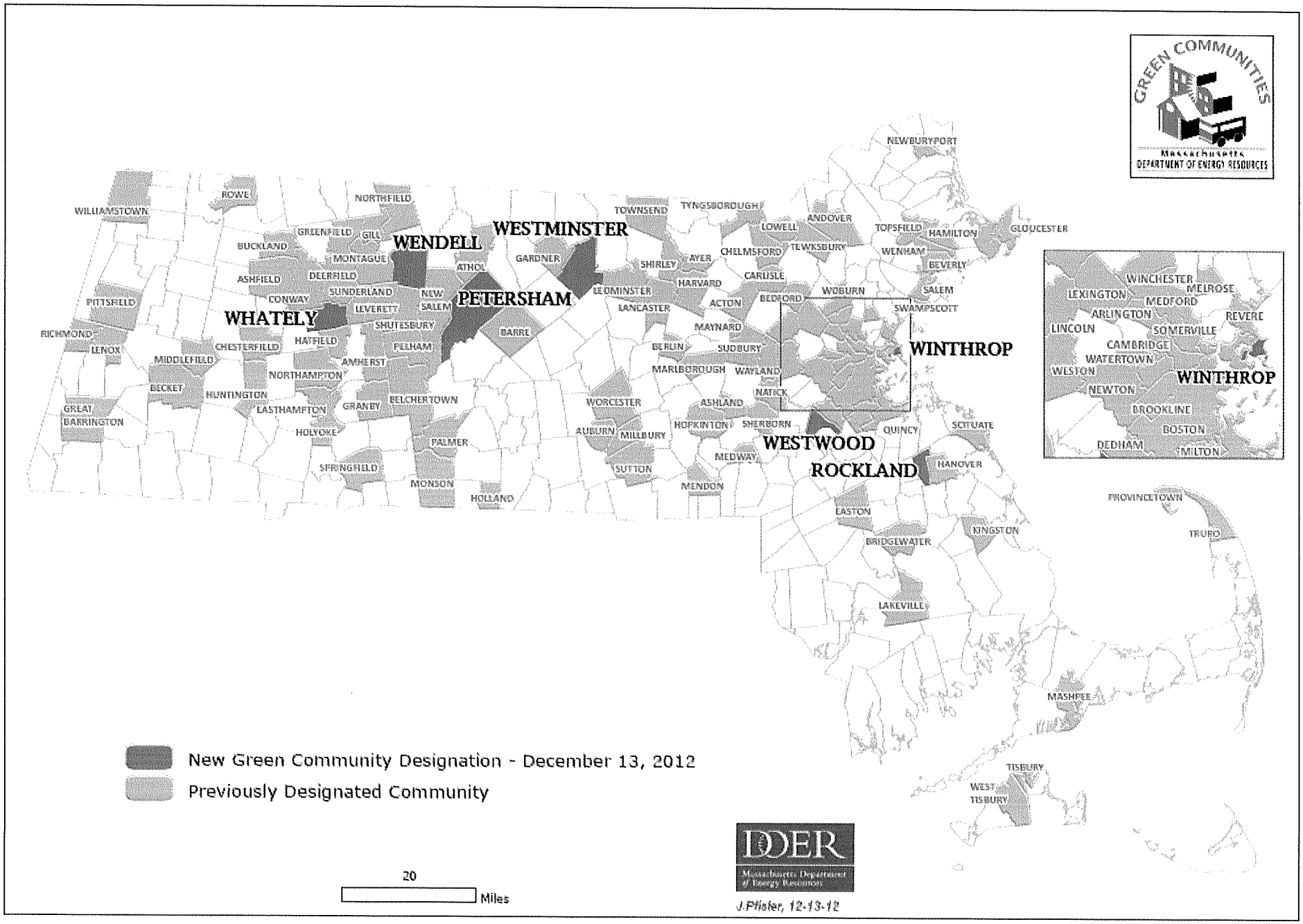
- √ Establish an energy use baseline
- √ Develop a plan for energy reduction
- ☐ Reduce energy use by 20% in 5 years

√ Criterion 4 : Adopt fuel-efficient vehicle policy

√ Criterion 5 : Adopt Building Stretch Code

20% energy reduction by 6/14

GREEN COMMUNITIES
MASSACHUSETTS
DEPARTMENT OF ENERGY RESOURCES


GREEN COMMUNITIES
MASSACHUSETTS DEPARTMENT OF ENERGY RESOURCES
WENDELL
WESTMINSTER
PETERSHAM
WHATELY
WINTHROP
WESTWOOD
ROCKLAND
WILLIAMSTOWN
ROWE
NORTHFIELD
GREENFIELD
GILL
BUCKLAND
MONTAGUE
ASHFIELD
DEERFIELD
SUNDERLAND
CONWAY
LEVERETT
PITTSFIELD
RICHMOND
LENOX
CHESTERFIELD
HATFIELD
SHUTESBURY
PELHAM
MIDDLEFIELD
AMHERST
NORTHAMPTON
BECKET
HUNTINGTON
EASTHAMPTON
GRANBY
BELCHERTOWN
GREAT BARRINGTON
HOLYOKE
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SALEM
SWAMPSCOTT
MAYNARD
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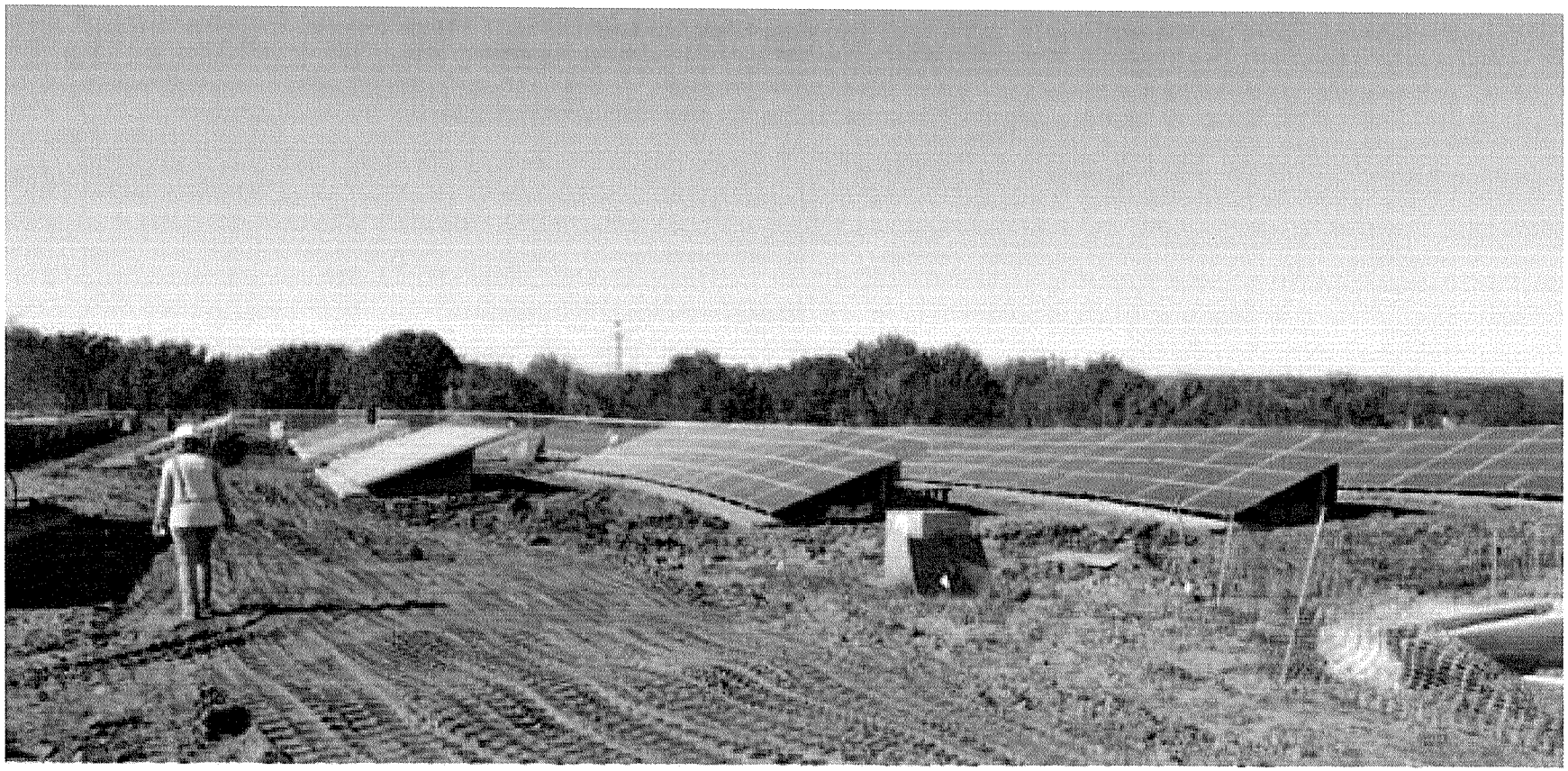
WAYLAND
NATICK
WORCESTER
ASHLAND
HOPKINTON
SHERBORN
AUBURN
MILLBURY
MEDWAY
SUTTON
MENDON
QUINCY
SCITUATE
HANOVER
EASTON
BRIDGEWATER
KINGSTON
LAKEVILLE
MASHPEE
PROVINCETOWN
TRURO
TISBURY
WEST TISBURY
WINCHESTER
LEXINGTON
MELROSE
MEDFORD
ARLINGTON
REVERE
LINCOLN
SOMERVILLE
CAMBRIDGE
WATERTOWN
WELSTON
NEWTON
BROOKLINE
BOSTON
DEDHAM
MILTON
New Green Community Designation - December 13, 2012
Previously Designated Community
20
Miles
DOER
Massachusetts Department of Energy Resources
J.Pfister, 12-13-12

Municipal Accomplishments:

Energy Conservation Measures (ECMs):

- 30 Improvements:
  - lighting, computing, HVAC, variable frequency drives
    - Libraries
    - Town Hall
    - PSF
    - Fire Stations
    - DPW
    - Sr Center
    - Street Lights
- Projected savings:
  - Electricity: ~ 550,000 kWh / yr (= 1,875 mmbtu / yr)
  - Natural Gas: > 2,500 therms / yr (= 250 mmbtu / yr)
  - over $100,000 / yr

Acton Landfill Solar Project

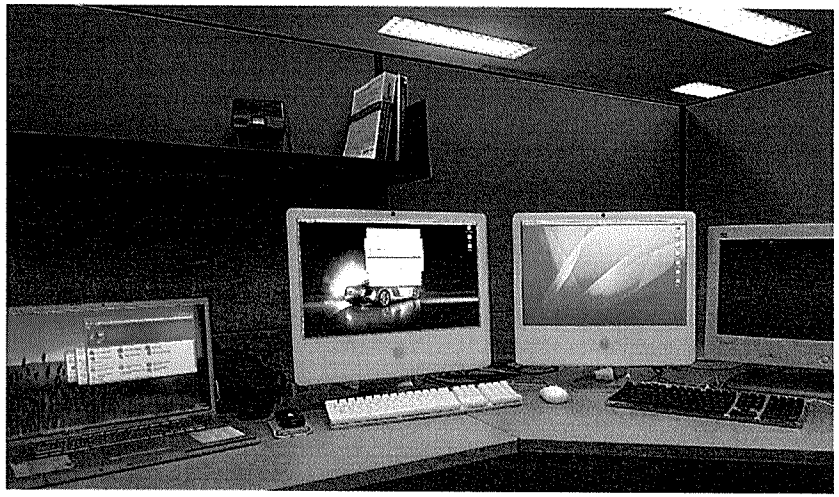


- Will power 75-90% of electricity needs of 12 town bldgs + WWTP + street lights
- Renewable energy production does <u>not</u> count towards 20% energy reduction goal

Results

- Energy use reduction:
  - compare with baseline year (FY2009) in MMBtu
- Maximum:
  - Town: FY2012: 8% reduction
  - Town + Schools: FY2012: 18% reduction
- Most recent results:
  - Town + Schools: FY2013: 14% reduction

"6% x 6/14" Program



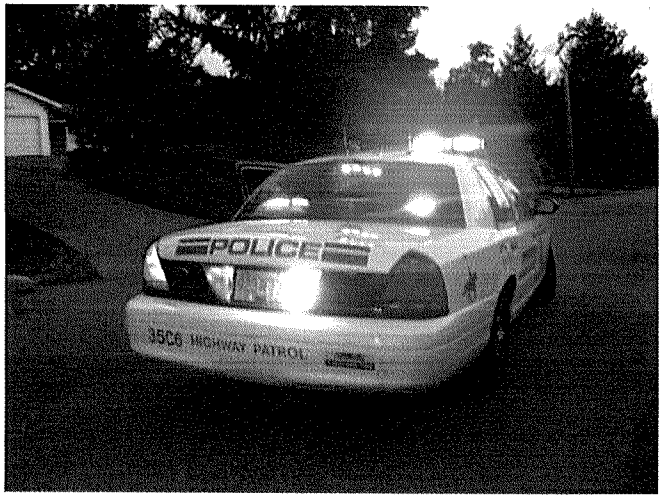
- 9 teams by dept / building
- Team captains
- Reduce personal energy use at work
- from kick-off until June, 2014
- Monthly feedback from utility bills
- Prize winners

Anti-idling campaign

I Care About Clean Air.

I run my engine only when necessary.

is a project of the Executive Office of Environmental Affairs with support by the Massachusetts Departman



Potential Achievement

- Acton Schools: 15% electricity drop over 2 yrs almost entirely due to behavioral change
- Municipal goal: 4,314 MMBtu reduction
- 4,314 MMBtu =
  - 1,264,000 kWh of electricity (83% of our annual total)
    OR
  - 43,140 therms of natural gas (68% of our annual total)
    OR
  - 31,260 gallons of diesel fuel (80% of our annual total)

BoS Role

We need your support and leadership

Encourage employees to apply their intelligence and creativity to this challenge!

Specifics for BoS

GAB and Town requests that the BoS:

1 - Write formal correspondence declaring support for 6% x 6-14 Behavior Shift Program

2 - Formally request that Town Manager also declare his support

3 - Join Town Manager in team meetings on program kick-off to emphasize your support and involvement

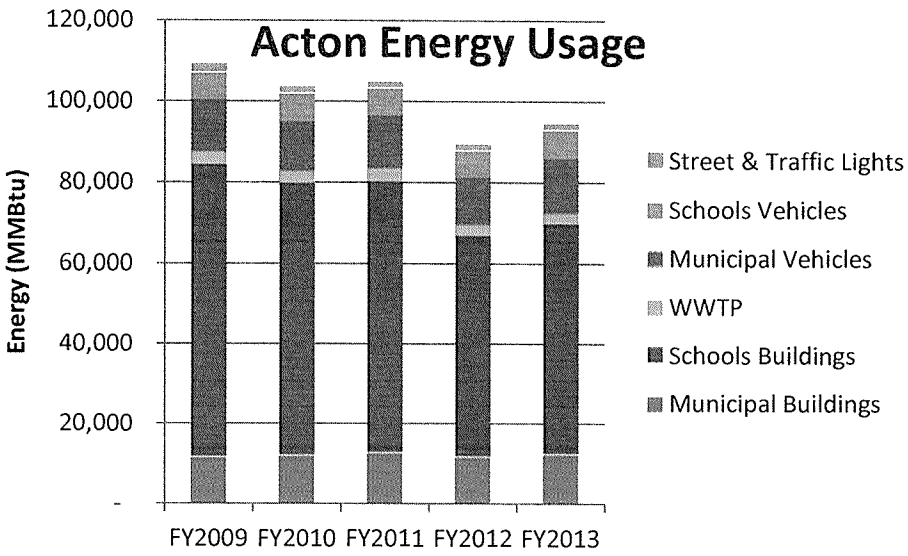
Thank You!

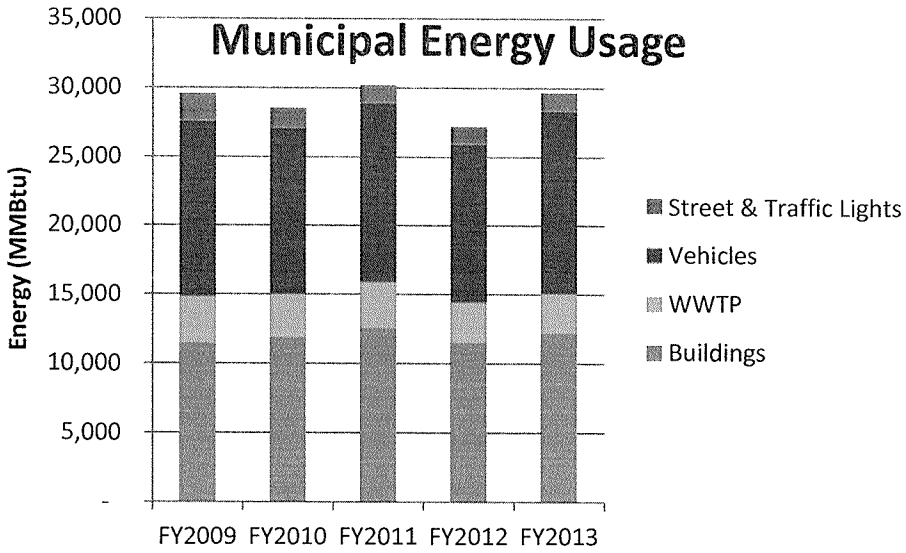
Questions?

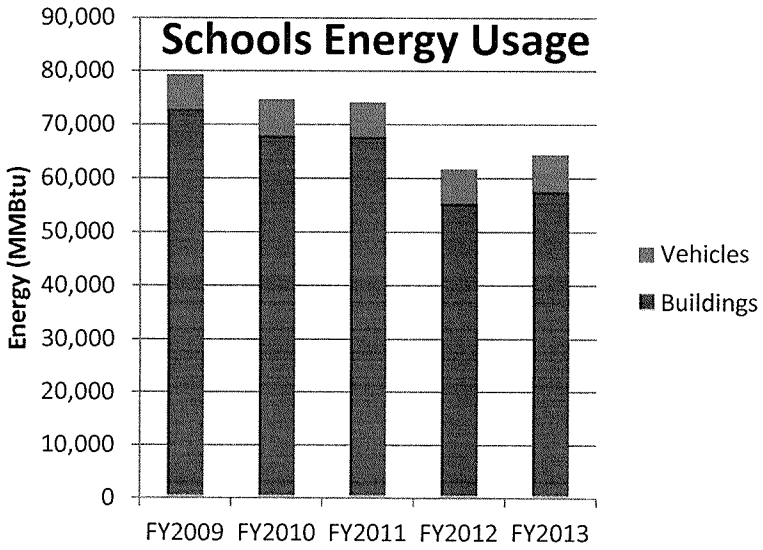
"Once [Facilities] was putting out the graphs showing how much we were saving each month, I think that was really key. People could see that last month we went down $12,000 from the previous year, and all that we're doing is turning our lights out when we leave the room. So it made a big difference that people could see the changes."

-Faculty member, Laguna Creek High School

Potential - Behavioral Change







Other Towns

- Cambridge: 5% electricity reduction in 1st year
- Winchester: 1% reduction per year from behavioral change

Criterion 1 √

Provide as-of-right siting in designated locations for renewable/alternative energy generation, research & development, or manufacturing facilities.

Criterion 2 √

Adopt an expedited application and permit process for as-of-right energy facilities.

Criterion 3 (√)

Establish an energy use baseline and develop a plan to reduce energy use by twenty percent (20%) within five (5) years.

Criterion 4 √

Purchase only fuel-efficient vehicles.

Criterion 5 √

Set requirements to minimize life-cycle energy costs for new construction; one way to meet these requirements is to adopt the new Board of Building Regulations and Standards (BBRS) Stretch Code.

MA Green Communities	Designation Date	Designation Grant Award / Competitive Grant Award	Grant Project Summary	100% Done
Acton	05/25/10	$150,794	to fund energy conservation measures and lighting upgrades at the Memorial Library, an HVAC analysis of Town Hall and installation of a tankless hot water heater and vending misers; lighting retrofits with LED technology at the Public Safety Facility building and Davis Memorial; and an energy education outreach program in the Acton-Boxborough Regional School District.	X
		$141,498	To fund the following energy efficiency measures in municipal school buildings: in the RJ Grey School, installation of demand control ventilation, resetting the unit ventilator controls, air sealing with caulking, and re-commissioning of boiler and rooftop unit; and air sealing with caulking at Conant, Douglas, Gates Elementary schools and the Administration building.	X