Green Community Annual Report

GREEN COMMUNITY ANNUAL REPORT

In order for a municipality to maintain its Green Community Designation and be eligible for future Green Communities funding opportunities, annual reports must be submitted by **September 30** for the preceding period July 1 – June 30. Please be certain to address all areas in full. If certain requested information does not apply, then please note it as "N/A".

If you have any questions on these reporting requirements, please contact your DOER Green Communities Regional Coordinator (RC). ***The objective is to have a dialogue with Green Communities staff before the report is due so that minimal follow-up with the municipality after the due date is required.***

Please submit a signed copy of the completed annual report via email to your Regional Coordinator and to Green.communities@state.ma.us

Date of Annual Report Submission: 9/30/11

Name, Title and Municipality of Preparer of Annual Report:

Assorted staff for Town of Acton

I confirm that I have reviewed this report and verify all information is true.

Signature of Chief Administrative Officer:

CRITERION 1: As-of-Right Zoning and CRITERION 2: Expedited Permitting

Regulations (zoning & permitting):

1) Have any significant changes been made to the zoning district(s) for which the community received Green Communities designation? Significant changes would impact the ability to construct a qualifying clean energy use in the district such as the geographic extent of the district, allowed uses, and dimensional requirements. Overlay districts such as water protection districts that impose special permitting requirements count as significant changes.

   If yes, attach a letter from municipal counsel that describes the changes, outlines any potential impact on the siting of clean energy projects, and affirms continued compliance with the Green Communities As-of-Right Zoning and Expedited Permitting criteria.

   Circle Response: **NO** **YES (letter from municipal counsel attached)**

2) Have any significant changes been made to site plan, design, or other development review criteria or any permit review procedures that would impact the ability to permit qualifying clean energy uses as-of-right and in a timely manner? Significant changes would be anything that pertains to the "by-right" nature of the zoning or to the amount of time necessary to review required permits.

   If yes, attach a letter from municipal counsel that describes the changes, illustrates any potential impact on the siting of clean energy projects, and affirms continued compliance with the Green Communities As-of-Right Zoning and Expedited Permitting criteria.

   Circle Response: **NO** **YES (letter from municipal counsel attached)**

3) Does sufficient space remain for "As-of-right" development of a qualifying renewable energy facility or at least 50,000 square feet of research and development or manufacturing space in the district(s) for which the community received Green Community designation?

   If not, ***explain*** what has happened since the community applied for and received Green Community designation and any plans the community may have to make such development feasible again. Please note, if 50,000 square feet of space does not remain, this will not jeopardize your designation, but we do want to know about it.

   Circle Response: **YES** **NO (Please provide explanation in space below)**

Permitting:

Have any clean energy projects applied for approval under the zoning for which the community received Green Community Designation?

Circle Response: **NO** **YES (please complete table below)**

In the following table, list all clean energy projects that have applied for approval under the zoning for which the community received Green Community designation. In the appropriate box, list all required permits, the dates on which the permits were applied for, etc. In the "Other" box, provide any additional information necessary to confirm that the community has been permitting projects in conformance with Green Communities Criterion #2 – Expedited Permitting.

See example provided for guidance. PLEASE DELETE the example provided when filling out table, this is for your reference only. Please add additional lines to Table on a new page if required.

Table - Expedited Permitting Projects N/A

PROJECT NAME	Type (Generation (Capacity), R&D, and/or Manufacturing)	Applicant	Project Description	Permit(s) (use as many rows as required)	Status	Date Submitted	Decision Date	Other Pertinent Information
Hilltop Wind	*Renewable Energy (wind)* *9 MW*	*Peak Performance, LLC.*	*Six 1.5mw wind turbines on 16 acres of land*	*Site Plan Review*	*Approved*	*11/1/2010*	*1/21/2011*	*Modest design changes to conform to as-of-right bylaw*
				Wetlands (access road is in buffer zone)	*Approved*	*10/16/2010*	*12/2/2010*	

CRITERION 3: Energy Reduction Plan (ERP) Annual Report

ANNUAL ENERGY USE REPORTING REQUIREMENTS OVERVIEW

These reporting requirements have been designed to balance the level of effort with the amount of information needed to have assurance that a Green Community is on track to reach its goal of reducing its energy use by 20% in five years. To that end, Green Communities should notice that the reporting requirements for Criterion 3: Energy Reduction will vary by what year of their Energy Reduction Plan they have completed as follows:

Year 1 – Complete Section A: Provide energy use for the Baseline Year and Year 1.
Year 2 – Complete Section A: Provide energy use for the Baseline Year, Year 1 and Year 2.
Year 3 – Complete Section A and Section B, if required, as follows: Provide energy use for the Baseline Year, Year 1, Year 2 and Year 3 by completing Section A below. If a Green Community does not demonstrate a cumulative 12% reduction by the completion of Year 3 of its Energy Reduction Plan , it must provide more detailed information to demonstrate it is on track to reach its 20% reduction in 5 years by also completing Section B.
Year 4 – Complete Sections A and B: Provide energy use for the Baseline Year and Years 1-4 by completing Section A below and provide additional details as requested in Section B.
Year 5- Complete Sections A and B: Provide energy use for the Baseline Year and Years 1-5 by completing Section A below and provide additional details as requested in Section B.

SECTION A: COMPLETE FOR ALL YEARS

Please fill in the blank:

Baseline Year (include FY or CY): 2009
Energy Tracking Tool Used: EPA Portfolio mgr
% Energy Reduction to Date: 4.5 %

Reporting Energy Use

Provide separate tables of your municipal energy use, in both native units and in MMBtu, for each year that is the subject of this annual report, including the baseline year. You may use the sample Tables 1 and 2 provided below or may combine these tables if desired; an excel version of the combined table is also available separately for use. If using MassEnergyInsight, please note Table 1 is MassEnergyInsight Energy Reduction Plan Guidance Table 3 (Fuel Units) and Table 2 is MassEnergyInsight Energy Reduction Plan Guidance Table 3 (MMBtu).

Provide an overall breakdown per individual building, water and sewer treatment plants, and open space[1] facilities. Vehicles, streetlights, traffic lights and distribution and water/sewer distribution and collection pumping can be provided in the aggregate. Please insert additional columns for any other fuels and be sure to list their consumption in the correct units (Table 1: native fuel units, Table 2: MMBtu). Fuel use from all vehicles, including those characterized as exempt AND non-exempt under Criterion 4, must be included. Diesel and gasoline must be listed separately.

Renewable Energy is a fuel source and the amount of renewable energy generated by the Green Community should be included here. Please report the amount of renewable energy consumed by each building. For example, a solar PV system that supplies electricity only to the high school it is mounted on should be included under Renewable Energy -

[1] An open space category may be used for any facility or location where the primary purpose of the facility is outdoors or in exposed space, for example parks, cemeteries and athletic fields.

Electric for the high school. This includes renewable generation owned by a third party under a Power Purchase Agreement (PPA). For larger systems serving more than one building, please contact Aimee Powelka, (617)626-7356. For thermal Renewable Energy systems that do not have a flow meter to measure the actual amount of thermal energy generated, please report the projected thermal energy generation from the design study. See examples *in italics* below. Biomass and biofuels should be reported separately from other Renewable Energy types by reporting fuel consumption.

MassEnergyInsight does not currently break out gasoline and diesel vehicle fuel or record renewable energy as a fuel source, but these changes will be made prior to the September 15th due date.

TABLE 1 AND 2

FY 2009

	Electricity		Natural Gas		#2 Distillate Fuel Oil		Propane		Gasoline		Diesel		Electric Renewable Energy		Thermal Renewable Energy		Total MMBtu
	kWh	MMBtu	Therms	MMBtu	Gallons	MMBtu	Gallons	MMBtu	Gallons	MMBtu	Gallons	MMBtu	kWh	MMBtu	Therms	MMBtu	
Acton Boxboro Junior High School	1,052,755	3,592	111,850	11,185		0		0		0		0		0		0	14,777
Acton Boxboro Regional High School	3,883,939	13,252	151,740	15,174		0		0		0		0		0		0	28,426
Conant Elementary School	388,042	1,324	33,140	3,314		0		0		0		0		0		0	4,638
Gates Elementary School	330,598	1,128	35,360	3,536		0		0		0		0		0		0	4,664
Parker Damon Elementary School	1,614,302	5,508	51,350	5,135		0		0		0		0		0		0	10,643
Douglas Elementary School	346,131	1,181	24,350	2,435		0		0		0		0		0		0	3,616
Maintenance Shed	28,136	96	0	0		0		0		0		0		0		0	96
School Administration Building	463,365	1,581	40,150	4,015		0		0		0		0		0		0	5,596
Center Fire Station	32,825	112	3,540	354		0		0		0		0		0		0	466
Citizens Library	6,155	21	980	98		0		0		0		0		0		0	119
Civil Defense	4,982	17	1,730	173		0		0		0		0		0		0	190
DPW Office	137,163	468	5,500	550		0		0		0		0		0		0	1,018
DPW Salt Shed	5,862	20	0	0		0		0		0		0		0		0	20
Library	553,048	1,887	15,190	1,519		0		0		0		0		0		0	3,406
Public Safety Building	478,312	1,632	14,440	1,444		0		0		0		0		0		0	3,076
Senior Center	40,739	139	2,710	271		0		0		0		0		0		0	410
South Fire Station	33,411	114	4,760	476		0		0		0		0		0		0	590
Town Hall	161,489	551	8,850	885		0		0		0		0		0		0	1,436
West Fire Station	32,532	111	4,540	454		0		0		0		0		0		0	565
Windsor Building	2,052	7	750	75		0		0		0		0		0		0	82
SUBTOTAL FOR BUILDINGS	9,595,838	32,741	510,930	51,093	0	0	0	0	0	0	0	0	0	0	0	0	83,834
Drinking Water/Wastewater Treatment Plant	734,760	2,507		0	5,590	777		0		0		0		0		0	3,284
Vehicles In Aggregate		0		0		0		0		0	138,633	19,270		0		0	19,270
Street and Traffic Lights In Aggregate	577,960	1,972		0		0		0		0		0		0		0	1,972
TOTAL ENERGY CONSUMPTION	10,908,558	37,220	510,930	51,093	5,590	777	0	0	0	0	138,633	19,270	0	0	0	0	108,360

FY 2010

	Electricity		Natural Gas		#2 Distillate Fuel Oil		Propane		Gasoline		Diesel		Electric Renewable Energy		Thermal Renewable Energy		Total MMBtu
	kWh	MMBtu	Therms	MMBtu	Gallons	MMBtu	Gallons	MMBtu	Gallons	MMBtu	Gallons	MMBtu	kWh	MMBtu	Therms	MMBtu	
Acton Boxboro Junior High School	1,267,585	4,325	117,930	11,793		0		0		0		0	51,290	175		0	16,293
Acton Boxboro Regional High School	3,101,407	10,582	118,580	11,858		0		0		0		0	52,169	178		0	22,618
Conant Elementary School	394,783	1,347	29,570	2,957		0		0		0		0		0		0	4,304
Gates Elementary School	350,821	1,197	43,460	4,346		0		0		0		0		0		0	5,543
Parker Damon Elementary School	1,057,151	3,607	49,360	4,936		0		0		0		0		0		0	8,543
Douglas Elementary School	274,033	935	22,200	2,220		0		0		0		0		0		0	3,155
Maintenance Shed	72,098	246	0	0		0		0		0		0		0		0	246
School Administration Building	1,149,179	3,921	27,800	2,780		0		0		0		0		0		0	6,701
Center Fire Station	35,170	120	3,100	310		0		0		0		0		0		0	430
Citizens Library	6,155	21	810	81		0		0		0		0		0		0	102
Civil Defense	4,982	17	1,320	132		0		0		0		0		0		0	149
DPW Office	150,352	513	4,230	423		0		0		0		0		0		0	936
DPW Salt Shed	5,275	18	0	0		0		0		0		0		0		0	18
Library	567,409	1,936	13,170	1,317		0		0		0		0		0		0	3,253
Public Safety Building	519,930	1,774	16,540	1,654		0		0		0		0		0		0	3,428
Senior Center	46,014	157	2,450	245		0		0		0		0		0		0	402
South Fire Station	37,515	128	3,910	391		0		0		0		0		0		0	519
Town Hall	177,022	604	6,930	693		0		0		0		0		0		0	1,297
West Fire Station	33,998	116	4,500	450		0		0		0		0		0		0	566
Windsor Building	1,465	5	840	84		0		0		0		0		0		0	89
SUBTOTAL FOR BUILDINGS	9,252,345	31,569	466,700	46,670	0	0	0	0	0	0	0	0	103,458	353	0	0	78,592
Drinking Water/Wastewater Treatment Plant	737,104	2,515		0	3,978	553		0		0		0		0		0	3,068
Vehicles in Aggregate		0		0		0		0		0	131,173	18,233		0		0	18,233
Street and Traffic Lights in Aggregate	363,423	1,240		0		0		0		0		0		0		0	1,240
TOTAL ENERGY CONSUMPTION	10,352,872	35,324	466,700	46,670	3,978	553	0	0	0	0	131,173	18,233	206,917	706	0	0	101,133

FY 2011

	Electricity		Natural Gas		#2 Distillate Fuel Oil		Propane		Gasoline		Diesel		Electric Renewable Energy		Thermal Renewable Energy		Total MMBtu
	kWh	MMBtu	Therms	MMBtu	Gallons	MMBtu	Gallons	MMBtu	Gallons	MMBtu	Gallons	MMBtu	kWh	MMBtu	Therms	MMBtu	
Acton Boxboro Junior High School	1,102,579	3,762	111,590	11,159		0		0		0		0	98,765	337		0	15,258
Acton Boxboro Regional High School	2,879,836	9,826	130,000	13,000		0		0		0		0	101,836	347		0	23,173
Conant Elementary School	409,437	1,397	37,210	3,721		0		0		0		0		0		0	5,118
Gates Elementary School	335,873	1,146	42,580	4,258		0		0		0		0		0		0	5,404
Parker Damon Elementary School	999,121	3,409	49,550	4,955		0		0		0		0		0		0	8,364
Douglas Elementary School	246,483	841	19,860	1,986		0		0		0		0	36,531	125		0	2,952
Maintenance Shed	72,098	246	0	0		0		0		0		0		0		0	246
School Administration Building	1,144,490	3,905	27,320	2,732		0		0		0		0		0		0	6,637
Center Fire Station	37,808	129	3,320	332		0		0		0		0		0		0	461
Citizens Library	6,741	23	900	90		0		0		0		0		0		0	113
Civil Defense	5,569	19	1,050	105		0		0		0		0		0		0	124
DPW Office	109,613	374	5,420	542		0		0		0		0	33,073	113		0	1,029
DPW Salt Shed	3,224	11	0	0		0		0		0		0		0		0	11
Library	579,719	1,978	14,010	1,401		0		0		0		0		0		0	3,379
Public Safety Building	533,411	1,820	18,060	1,806		0		0		0		0		0		0	3,626
Senior Center	50,117	171	3,060	306		0		0		0		0		0		0	477
South Fire Station	34,877	119	4,800	480		0		0		0		0		0		0	599
Town Hall	185,522	633	8,270	827		0		0		0		0		0		0	1,460
West Fire Station	36,049	123	6,320	632		0		0		0		0		0		0	755
Windsor Building	2,345	8	930	93		0		0		0		0		0		0	101
SUBTOTAL FOR BUILDINGS	8,774,912	29,940	484,250	48,425	0	0	0	0	0	0	0	0	270,205	922	0	0	79,287
Drinking Water/Wastewater Treatment Plant	736,518	2,513		0	5,353	744		0		0		0		0		0	3,257
Vehicles in Aggregate		0		0		0		0		0	142,029	19,742		0		0	19,742
Street and Traffic Lights in Aggregate	351,700	1,200		0		0		0		0		0		0		0	1,200
TOTAL ENERGY CONSUMPTION	9,863,130	33,653	484,250	48,425	5,353	744	0	0	0	0	142,029	19,742	540,410	1,844	0	0	103,486

TABLE 4

Table 4

Energy Conservation Measures Data

Measure		3	Energy Data						Financial Data					Reference Data	
Category/Building	Energy Conservation Measure	Status (Completed with month/year or planned Qtr/year)	Projected Annual Electricity Savings (kWh)	Projected Annual Natural Gas Savings (therms)	Projected Annual Oil Savings (gallons)	Projected Annual Propane Savings (gallons)	Projected Annual Gasoline Savings (gallons)	Projected Annual Diesel Savings (gallons)	Projected Annual Cost Savings ($)	Total Installed Cost ($)	Green Community Grant ($)	Utility Incentives ($)	Net Cost ($)	Funding Source(s) for Net Costs	Source for Projected Savings
Acton Boxboro Regional High School	LED Exit Signs	Completed 7/2008	35,000						$6,825	$20,000			$20,000	School Operating Budget	http://www.energystar.gov/index.cfm?c=exit_signs.pr_exit_signs
Acton Boxboro Regional High School	Flat Screen Monitors	Planned Q3-Q4 2014	86,000						$16,770	$30,000			$30,000	School Operating Budget	http://www.energystar.gov/index.cfm?c=monitors.pr_crit_monitors
Acton Boxboro Regional High School	Occupant Behaviour Program	Ongoing	386,000	7,587					$84,754	$7,857	$4,664		$3,193	School Operating Budget	Estimate Based on Success to Date
Acton Boxboro Regional High School	Lighting Upgrades	Ongoing	154,400						$30,108	$75,000			$75,000	School Operating Budget	http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=LB
Acton Boxboro Regional High School	VFDs on Pumps and Fans		38,800						$7,566	$70,000			$70,000	School Operating Budget	Assumed 1% of baseline electricity costs
Acton Boxboro Regional High School	Solar Hot Water for Pool Heating			1,000					$1,250	$39,000			$39,000	School Operating Budget	Based on 390 sf of solar thermal collector required
Acton Boxboro Regional High School	Vending Machine Controls		4,000						$780	$1,000			$1,000	School Operating Budget	Tufts University Office of Sustainability
Acton Boxboro Regional High School	Vending Machine Reduction		5,000						$975	$0			$0	School Operating Budget	Tufts University Office of Sustainability
Acton Boxboro Regional High School	Motion Sensors/ Lighting Controls for Gymnasium/Auditorium		1,560						$304	$4,000			$4,000	School Operating Budget	1.5 w/sf 10 hours/wk
Acton Boxboro Junior High School	LED Exit Signs	Completed 3/2009	35,000						$6,825	$20,000			$20,000	School Operating Budget	http://www.energystar.gov/index.cfm?c=exit_signs.pr_exit_signs
Acton Boxboro Junior High School	Flat Screen Monitors	Planned Q3-Q4 2014	86,000						$16,770	$30,000			$30,000	School Operating Budget	http://www.energystar.gov/index.cfm?c=monitors.pr_crit_monitors
Acton Boxboro Junior High School	Occupant Behaviour Program	Ongoing	105,200	5,593					$27,505	$7,857	$4,664		$3,193	School Operating Budget	Estimate Based on Success to Date
Acton Boxboro Junior High School	Lighting Upgrades	Ongoing	68,800						$13,416	$30,000			$30,000	School Operating Budget	http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=LB
Acton Boxboro Junior High School	Control Upgrades	Ongoing	105,200						$20,514	$70,000			$70,000	School Operating Budget	http://www.changeair.com/downloads/Energy_Savings_Case_study.pdf
Acton Boxboro Junior High School	Boiler Replacement	Proposed 2014		20,000					$25,000	$55,000			$55,000	School Operating Budget	Energy Use of Malfunctioning Boiler
Acton Boxboro Junior High School	Split hall lighting into more zones (currently 3) so building can be lit in smaller zones during evening hours		1,040						$203	$5,000			$5,000	School Operating Budget	Based on 2000 sf @ 1w/sf turned off an additional 10 hrs/wk
Acton Boxboro Junior High School	VFDs on Pumps and Fans		10,500						$2,048	$20,000			$20,000	School Operating Budget	Assumed 1% of baseline electricity costs
Acton Boxboro Junior High School	Vending Machine Controls		2,000						$390	$500			$500	School Operating Budget	Tufts University Office of Sustainability
Acton Boxboro Junior High School	Vending Machine Reduction		2,500						$488	$0			$0	School Operating Budget	Tufts University Office of Sustainability
Acton Boxboro Junior High School	IT Closet HVAC Replacement		17,500						$3,413	$12,000			$12,000	School Operating Budget	2 Ton load reduction, 24/7/365 operation

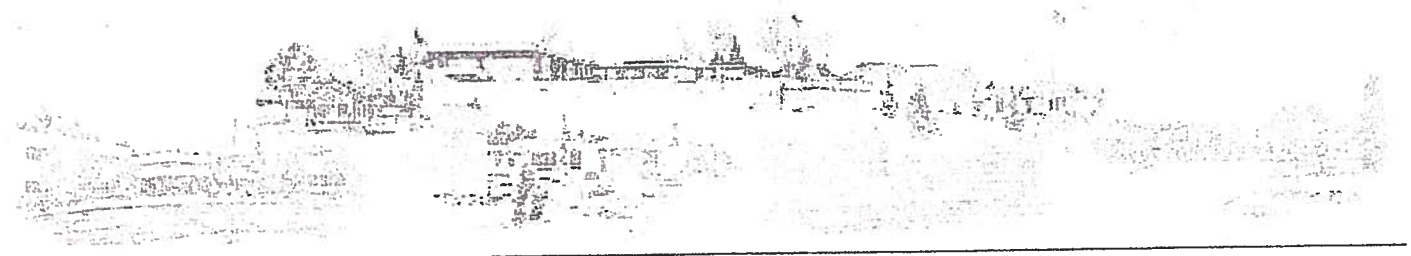
Acton Boxboro Junior High School	Motion Sensors/ Lighting Controls for Gymnasium/Auditorium		1,170						$228	$3,000			$3,000	School Operating Budget	1.5 w/sf 10 hours/wk
Conant Elementary School	LED Exit Signs	Completed 3/2009	8,800						$1,716	$4,000			$4,000	School Operating Budget	http://www.energystar.gov/index.cfm?c=exit_signs.pr_exit_signs
Conant Elementary School	Flat Screen Monitors	Planned Q1-Q2 2014	17,200						$3,354	$6,000			$6,000	School Operating Budget	http://www.energystar.gov/index.cfm?c=monitors.pr_crit_monitors
Conant Elementary School	Occupant Behaviour Program	Ongoing	38,800	1,657					$3,706	$7,857	$4,664		$3,193	School Operating Budget	Estimate Based on Success to Date
Conant Elementary School	Lighting Upgrades	Planned Q3-Q4 2012	44,800						$8,736	$20,000			$20,000	School Operating Budget	http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=LB
Conant Elementary School	Boiler Upgrade	Completed 7/2008		3,314					$4,143	$700,000		$6,000	$694,000	School Operating Budget	http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=BO
Conant Elementary School	Motion Sensors/ Lighting Controls for Gymnasium/Auditorium		390						$76	$2,000			$2,000	School Operating Budget	1.5 w/sf 5 hours/wk
Douglas Elementary School	LED Exit Signs	Completed 5/2009	8,800						$1,716	$4,000			$4,000	School Operating Budget	http://www.energystar.gov/index.cfm?c=exit_signs.pr_exit_signs
Douglas Elementary School	Flat Screen Monitors	Planned Q1-Q2 2014	17,200						$3,354	$6,000			$6,000	School Operating Budget	http://www.energystar.gov/index.cfm?c=monitors.pr_crit_monitors
Douglas Elementary School	Occupant Behaviour Program	Ongoing	30,305	1,220					$7,434	$7,857	$4,664		$3,193	School Operating Budget	Estimate Based on Success to Date
Douglas Elementary School	Lighting Upgrades	Ongoing	37,860						$7,383	$18,000			$18,000	School Operating Budget	http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=LB
Douglas Elementary School	Boiler Upgrade	Completed 7/2008	2,440						$3,050	$450,000		$6,000	$444,000	School Operating Budget	http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=BO
Douglas Elementary School	Motion Sensors/ Lighting Controls for Gymnasium/Auditorium		390						$76	$2,000			$2,000	School Operating Budget	1.5 w/sf 5 hours/wk
Parker Damon Elementary School	LED Exit Signs	Completed 7/2008	17,600						$3,432	$6,000			$6,000	School Operating Budget	http://www.energystar.gov/index.cfm?c=exit_signs.pr_exit_signs
Parker Damon Elementary School	Flat Screen Monitors	Planned Q1-Q2 2014	17,600						$3,432	$6,000			$6,000	School Operating Budget	http://www.energystar.gov/index.cfm?c=monitors.pr_crit_monitors
Parker Damon Elementary School	Occupant Behaviour Program	Ongoing	161,430	2,851					$35,043	$7,857	$4,664		$3,193	School Operating Budget	Estimate Based on Success to Date
Parker Damon Elementary School	Updated Controls	Completed 6/2011	48,400	1,710					$11,576	$40,000			$40,000	School Operating Budget	http://www.changeair.com/downloads/Energy_Savings_Case_study.pdf
Parker Damon Elementary School	Lighting Upgrades	Completed 6/2011	14,000						$2,730	$7,000			$7,000	School Operating Budget	http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=LB
Parker Damon Elementary School	Motion Sensors/ Lighting Controls for Gymnasium/Auditorium		1,170						$228	$3,000			$3,000	School Operating Budget	1.5 w/sf 10 hours/wk
Gates Elementary School	LED Exit Signs	Completed 5/2009	8,800						$1,716	$3,000			$3,000	School Operating Budget	http://www.energystar.gov/index.cfm?c=exit_signs.pr_exit_signs
Gates Elementary School	Flat Screen Monitors	Planned Q1-Q2 2014	17,600						$3,432	$6,000			$6,000	School Operating Budget	http://www.energystar.gov/index.cfm?c=monitors.pr_crit_monitors
Gates Elementary School	Occupant Behaviour Program	Ongoing	33,053	1,768					$8,655	$7,857	$4,664		$3,193	School Operating Budget	Estimate Based on Success to Date

Gates Elementary School	Lighting Upgrades	Ongoing	43,200						$8,424	$20,000			$20,000	School Operating Budget	http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=LB
Gates Elementary School	Boiler Upgrade	Completed 7/2008		3,536					$4,143	$700,000		$6,000	$694,000	School Operating Budget	http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=BO
Gates Elementary School	Motion Sensors/ Lighting Controls for Gymnasium/Auditorium		390						$76	$2,000			$2,000	School Operating Budget	1.5 w/sf 5 hours/wk
School Administration Building	Lighting Retrofit	Completed 5/2009	117,000						$22,815	$50,000			$50,000	School Operating Budget	http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=LB
School Administration Building	LED Exit Signs	Completed 7/2008	8,800						$1,716	$3,000			$3,000	School Operating Budget	http://www.energystar.gov/index.cfm?c=exit_signs.pr_exit_signs
School Administration Building	Flat Screen Monitors	Planned Q1-Q2 2014	17,600						$3,432	$6,000			$6,000	School Operating Budget	http://www.energystar.gov/index.cfm?c=monitors.pr_crit_monitors
School Administration Building	Occupant Behaviour Program	Ongoing	46,324	2,000					$11,533	$7,857			$7,857	School Operating Budget	Estimate Based on Success to Date
All School Buildings	Lighting Assessment, delamping		80,000						$15,600	$0			$0	School Operating Budget	4% reduction in installed LPD
All School Buildings	Exterior Retrofit	Planned Q1-Q2 2012	120,000	4,479					$30,599	$90,000		$60,000	$30,000	Municipal Operating Budget	http://www.energystar.gov/index.cfm?c=home_sealing.hm_improvement_methodology - assumes 1% heating savings
Library	Sterling Engineering Energy Study	Completed 6/2011								$9,800	$9,800		$0		Sterling Engineering Study
Library	Indoor Lighting Upgrades	Completed 6/2011	16,400						$3,200	$32,326		$10,603	$21,723	Municipal Operating Budget	Sterling Engineering Study
Library	Outdoor Lighting	Ongoing	20,000						$4,400	$12,374	$9,947	$2,427	$0	Municipal Operating Budget	Sterling Engineering Study
Library	Heating Pumps	Completed 6/2011	3,800						$740	$3,600	$3,600		$0	Municipal Operating Budget	Sterling Engineering Study
Library	Miscellaneous Electric Heating	Planned Q3-Q4 2013	9,300	320					$1,300	$12,000			$12,000	Municipal Operating Budget	Sterling Engineering Study
Library	Supply Fans	Planned Q1-Q2 2014	15,200						$2,950	$15,600			$15,600	Municipal Operating Budget	Sterling Engineering Study
Library	Exhaust Fans	Planned Q1-Q2 2014	-2,469	1,750					$2,200	$17,000			-$53,300	Municipal Operating Budget	Sterling Engineering Study
Library	Library PCs	Completed 2/2011	8,600						$1,650	$3,000			$3,000	Municipal Operating Budget	Sterling Engineering Study
Library	Data Center AC Compressor	Planned Q3-Q4 2012	12,200	1,900					$5,300	$12,500			$12,500	Municipal Operating Budget	Sterling Engineering Study
Library	DHW	Planned Q1-Q2 2013	4,100						$800	$700			$700	Municipal Operating Budget	Sterling Engineering Study
Library	Occupant Behaviour Program	Ongoing	27,000	750					$6,211	$1,000			$1,000	Municipal Operating Budget	Sterling Engineering Study
Library	Rewire Economizer	Planned Q3-Q4 2012	3,844						$750	$2,000			$2,000	Municipal Operating Budget	Sterling Engineering Study
Library	LED Exit Signs	Planned Q3-Q4 2012	3,504						$684	$1,200			$1,200	Municipal Operating Budget	Sterling Engineering Study
Library	Drycooler	Planned Q1-Q2 2014	5,400						$1,054	$20,000			$20,000	Municipal Operating Budget	Sterling Engineering Study
Library	HVAC Upgrades	Completed 6/2011	25,000						$4,875	$70,300	$70,300		$0	Municipal Operating Budget	Estimate Based on Energy Bills

Town Hall	RDK Energy Feasability Study	Completed 5/2011								$25,107	$25,107		$0		RDK Engineering Study
Town Hall	Rehab Historic Windows Phase 1	Completed 7/2010		440					$550	$5,000			$5,000	Historic Preservation Project	RDK Engineering Study
Town Hall	Rehab Historic Windows Phase 2	Ongoing		440					$550	$5,000			$5,000	Historic Preservation Project	RDK Engineering Study
Town Hall	Hot Water Pumps	Planned Q1-Q2 2014	3,750						$731	$3,000			$3,000	Municipal Operating Budget	RDK Engineering Study
Town Hall	LED Exit Signs	Completed 7/2010	3,504						$683	$1,200			$1,200	Municipal Operating Budget	RDK Engineering Study
Town Hall	HVAC Control Upgrades	Planned Q3-Q4 2013	4,845						$945	$5,000			$5,000	Municipal Operating Budget	RDK Engineering Study
Town Hall	Flat Screen Monitors	Completed 10/2010	17,200						$3,354	$6,000			$6,000	Municipal Operating Budget	RDK Engineering Study
Town Hall	DHW on Timer	Planned Q1-Q2 2013		88					$110	$500			$500	Municipal Operating Budget	RDK Engineering Study
Town Hall	Daylight Dimming in Faulkner	Planned Q3-Q4 2012	2,500						$488	$2,000			$2,000	Municipal Operating Budget	RDK Engineering Study
Town Hall	Vending Machine Controls	Planned Q3-Q4 2012	2,000						$390	$500			$500	Municipal Operating Budget	RDK Engineering Study
Town Hall	Occupant Behaviour Program	Ongoing	8,000	442					$2,113	$1,000			$1,000	Municipal Operating Budget	RDK Engineering Study
Town Hall	Lighting Upgrades	Completed 2/2011	32,000						$6,240	$20,000			$20,000	Municipal Operating Budget	RDK Engineering Study
Town Hall	Pressure Balance	Planned Q1-Q2 2013	15,000						$2,925	$15,000			$15,000	Municipal Operating Budget	RDK Engineering Study
Town Hall	Condensing Water Heater	Completed 6/2011		800					$1,000	$8,840	$8,840		$0		RDK Engineering Study
Town Hall	Radiant Floor	Proposed 2014	2,700	884					$1,600	$100,000			$100,000	Municipal Operating Budget	Elimination of Electric Heaters and Reduced Hot Water
Town Hall	Wood Chip Boiler	Proposed 2014		8,850					$5,525	$40,000			$40,000	Municipal Operating Budget	Energy Use of Current Boiler
DPW Office	Vending Machine Controls	Completed 4/2011	1,000						$195	$250	$250		$0	N/A	http://www.energyfederation.org/consumer/default.php/cPath/39_4721
DPW Office	Occupant Behaviour Program	Ongoing	6,800	275					$1,640	$1,000			$1,000	Municipal Operating Budget	Estimate Based on Success to Date
Public Safety Facility	Retro-Commisioning	Planned Q1-Q2 2014	47,000	1,444					$10,970	$30,000			$30,000	Municipal Operating Budget	AECOM Energy Audit
Public Safety Facility	LED Exit Signs	Planned Q1-Q2 2014	3,504						$683	$1,200			$1,200	Municipal Operating Budget	AECOM Energy Audit
Public Safety Facility	LCD Monitors	Planned Q1-Q2 2014	17,200						$3,354	$6,000			$6,000	Municipal Operating Budget	AECOM Energy Audit
Public Safety Facility	Drycooler	Planned Q1-Q2 2014	10,000						$1,950	$20,000			$20,000	Municipal Operating Budget	AECOM Energy Audit
Public Safety Facility	Lighting Upgrades	Planned Q1-Q2 2014	57,000						$11,115	$30,000			$30,000	Municipal Operating Budget	AECOM Energy Audit
Public Safety Facility	Occupant Behaviour Program	Planned Q1-Q2 2014	24,000	722					$5,583	$2,000			$2,000	Municipal Operating Budget	AECOM Energy Audit
Center Fire Station	Boiler Replacement	Planned Q1-Q2 2013		1,400					$1,750	$20,000			$20,000	Municipal Operating Budget	http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=BO
South Fire Station	Boiler Replacement	Planned Q1-Q2 2013		952					$1,190	$15,000			$15,000	Municipal Operating Budget	http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=BO

West Fire Station	*Boiler Replacement*	*Planned Q1-Q2 2013*		908					$1,135	$15,000			$15,000	*Municipal Operating Budget*	*http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=BO*
Senior Center	*Lighting Upgrades*	*Planned Q3-Q4 2013*	3,350						$653	$1,500			$1,500	*Municipal Operating Budget*	*http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=LB*
Citizens Library	*Envelope Upgrades*	*Completed 10/2009*	615	98					$240	$132,000			$132,000	*Municipal Operating Budget*	*http://www.energystar.gov/index.cfm?c=home_sealing.hm_improvement_methodology*
All Town Buildings	*Lighting Assessment, delamping*		15,000						$2,925	$0			$0		*4% reduction in installed LPD*
BUILDINGS SUBTOTAL			2,534,469	79,178	0		0		$586,158	$3,418,997	$155,828	$91,030	$3,101,839		
STREET AND TRAFFIC LIGHTS SUBTOTAL			0	0	0		0		$0	$0	$0	$0	$0		
Nstar owned Street Lights 10% reduction			48,212												
WATER/SEWER/PUMPING SUBTOTAL			48,212	0	0		0		$0	$0	$0	$0	$0		
Efficient Vehicle Policies - Aggregate		*Ongoing*						6,932							*Assumes 5% reduction*
VEHICLES SUBTOTAL			0	0	0		0	6,932	$0	$0	$0	$0	$0		
TOTAL Projected Savings			2,582,681	79,178	0		0	6,932	$586,158	$3,418,997	$155,828	$91,030	$3,101,839		
TOTAL MMBtu SAVINGS		17693.40757	8812.107572	7917.8	0	0	0	963.5							

OPTIONAL ENERGY REDUCTION NARRATIVE



ACTON PUBLIC SCHOOLS ❖ ACTON-BOXBOROUGH REGIONAL SCHOOL DISTRICT
16 Charter Road Acton, MA 01720-2995 *Phone:* 978-264-4700 *Fax:* 978-264-3340

Acton-Boxborough Regional School District, Acton Public Schools
Energy Conservation Outreach Program

"Power Down Project" Narrative

We've had a tremendous year raising awareness about energy conservation in the Acton-Boxborough schools! The engagement of students and staff in the "Power Down Project" led to a significant increase in energy-conserving behaviors, and the result was a 4.4% district-wide cut in electricity and a savings of $65,000 in avoided energy costs. The Power Down Project raised awareness throughout the schools, and reached every member of the school community in this kick-off year, a total population of 5,500 students and 500 adults.

At Acton-Boxborough Regional High School, students joined the Power Down team and began using Kill-a-Watt meters to assess all equipment in the building, taking note of whether equipment was left on during evening and weekend hours and whether it drew a phantom load. Once the building was assessed and problem areas identified, the Power Down team proceeded with these projects over the course of the year:

- Created "Power Down Friday" events several times during the year, with extensive publicity (posters, announcements, verbal reminders to adults) culminating in student-designed doortags being hung on every classroom and office door on a Thursday afternoon. Starting on Friday afternoon and continuing through the weekend, students and the Energy Advisor evaluated every classroom and office at the high school, and left personalized notes at each site describing what additional steps were needed to cut energy use. For those rooms that fully met the Power Down criteria, a star was placed on the classroom or office door. These stars accumulated over the course of the school year. Those rooms that received a star at each Power Down event received a certificate of appreciation at the end of the school year.
- More than 100 original pieces of "switchplate artwork" were created by students in art classes and installed as prompts to draw attention to the importance of turning off lights when exiting a space.
- A "Lightbulb Exchange" was organized in the front lobby of the high school over two days. Staff were encouraged to turn in incandescent lightbulbs in exchange for a free CFL bulb. More than 100 lightbulbs were culled from the high school, netting over $1,000 in reduced energy costs per year. A

second Lightbulb Exchange was set up at a nearby elementary school, and more Lightbulb Exchanges are in the plans for FY2012.

- Power strips were distributed to all staff who expressed an interest in one, in order to make it easier to Power Down as the weekend began. Over 50 power strips were delivered by students; students also provided information about how best to power down various pieces of classroom equipment, and assisted with setting up the power strips.
- Two groups of students went on field trips to the HS roof to learn about HVAC equipment and energy consumption
- An Energy Fair was created in May 2011, featuring eight original student-designed exhibits. The Fair ran during the school day and was visited by 125 6th graders who were studying energy as part of their science curriculum.

At R.J.Grey Junior High School, a Climate Club was formed with a science teacher and the Energy Advisor as club advisors. Students benefited from the leadership of high school students, and initiated some projects based on the high school success as well as some ideas of their own:

- Publicized Power Down Fridays with door tags, posters, announcements
- Distributed power strips to faculty who requested them, provided information about phantom power
- Created a "solar spinner" exhibit in the cafeteria which is variable in speed and is powered by a 10-watt solar panel. This project serves to raise awareness of the substantial solar array on the roof of R.G.Grey.
- Traveled to the Blackstone power plant in Cambridge for a guided tour of a working power plant.
- Attended an Alliance for Climate Education assembly about the links between energy consumption and climate change.

At Acton's five elementary schools, the Energy Advisor made presentations about energy conservation and renewable energy at all-school assemblies and all-6th grade meetings. Sixth grade classes were a special focus, as energy is part of the academic curriculum for this age group. A special lab class providing hands-on experience with Kill-a-Watt meters was designed and delivered in nine 6th grade classes, along with practice in calculating the energy load over a year's time of a variety of appliances. Students also had the opportunity to learn about the technology of lightbulbs and assessed the differences in power consumption and efficiency of incandescent, CFL and LED lamps.

The Power Down program has delivered a winning combination of substantial cost savings, a reduced environmental footprint, and a significant educational experience for students who use their newfound knowledge to help influence staff to adopt energy-conserving behaviors. The Kill-a-Watt meters and other equipment & materials purchased with Green Communities funding have enriched the program and broadened its appeal. Even more importantly, the Green Communities funding has been critical in supporting essential staff time to

foster the social interaction and educational gains that provide momentum to the program.

Power Down is underway again for the 2011-2012 school year. High school students have begun to organize for a lighting assessment in order to implement de-lamping as an energy reduction strategy. They will be exploring infrared technology with an infrared camera that was donated to the Power Down Project by the Fluke Corporation. And they are learning about how energy conservation fits within a general framework of sustainability principles. Projects are also being developed within the junior high and elementary schools. We look forward to building on last year's successes and finding new ways to promote the opportunity represented by energy conservation. The support of the Department of Energy Resources over the past year has been essential to the program's success and is very much appreciated.

Kate Crosby
Energy Advisor
September 29, 2011

GREEN COMMUNITIES ANNUAL REPORT

ENERGY CONSERVATION OUTREACH PROGRAM

"POWER DOWN PROJECT"

ACTON-BOXBOROUGH REGIONAL SCHOOL DISTRICT,
ACTON PUBLIC SCHOOLS

SUPPLEMENTARY MATERIALS

SEPTEMBER 30, 2011

Acton-Boxborough Regional High School
Student testimonial

Despite all of the activities that I'm involved in, Power Down has the most powerful impact on my life. Power Down is the club that literally means the world to me because it is protecting the world. This is no longer a club, but rather a movement at our school which has united the school community in a way unlike any other.

Through Power Down I have gotten to know members of the school that I would not have forged relationships with otherwise. I can now genuinely say that I am close friends with janitors, teachers I have never had, the Principal... For our school, Power Down has brought spirit that we could not amass from sports games or academic pride. This is a different type of movement that connects teenagers of our school, our community, and our world.

Power Down is always on my mind.

-S.P., 11th grade student

DOUGLAS ELEMENTARY SCHOOL, ACTON, MA

Name _____ Date 5/11/11

Kill-A-Watt Activity Reflection
Due Monday, 5/16/2011

Write a one-to-two-paragraph reflection about what you learned in science on Wednesday. Consider the article about energy consumption as well as our activity measuring electrical appliances with the Kill-A-Watt meters. Be thorough. Will you choose electrical appliances and light bulbs any differently in the future? Astound me with your comprehension!

I think that wednesday's science class was one of the most important science classes of the year. I learned how I can help save energy. Ms. Crosby demonstrated three diferent light bulbs. The original light bulb, the "swirly" light bulb, and the LED light bulb. I will persuade my parents to buy swirly light bulbs because They are much more efficient than the type we currently use in my house. I also Had fun using the Kill-A-Watt meter to measure how much energy certain machines use. I learned that hairdryers and toasters use much more energy than I thought before.

ACE
MACHINE
NO CLUTCH
MACHINE
NO CLUTCH
MACHINE
NO CLUTCH

POWER DOWN

PLEASE REMEMBER TO

TURN OFF LIGHTS!

TURN OFF COMPUTER

UNPLUG

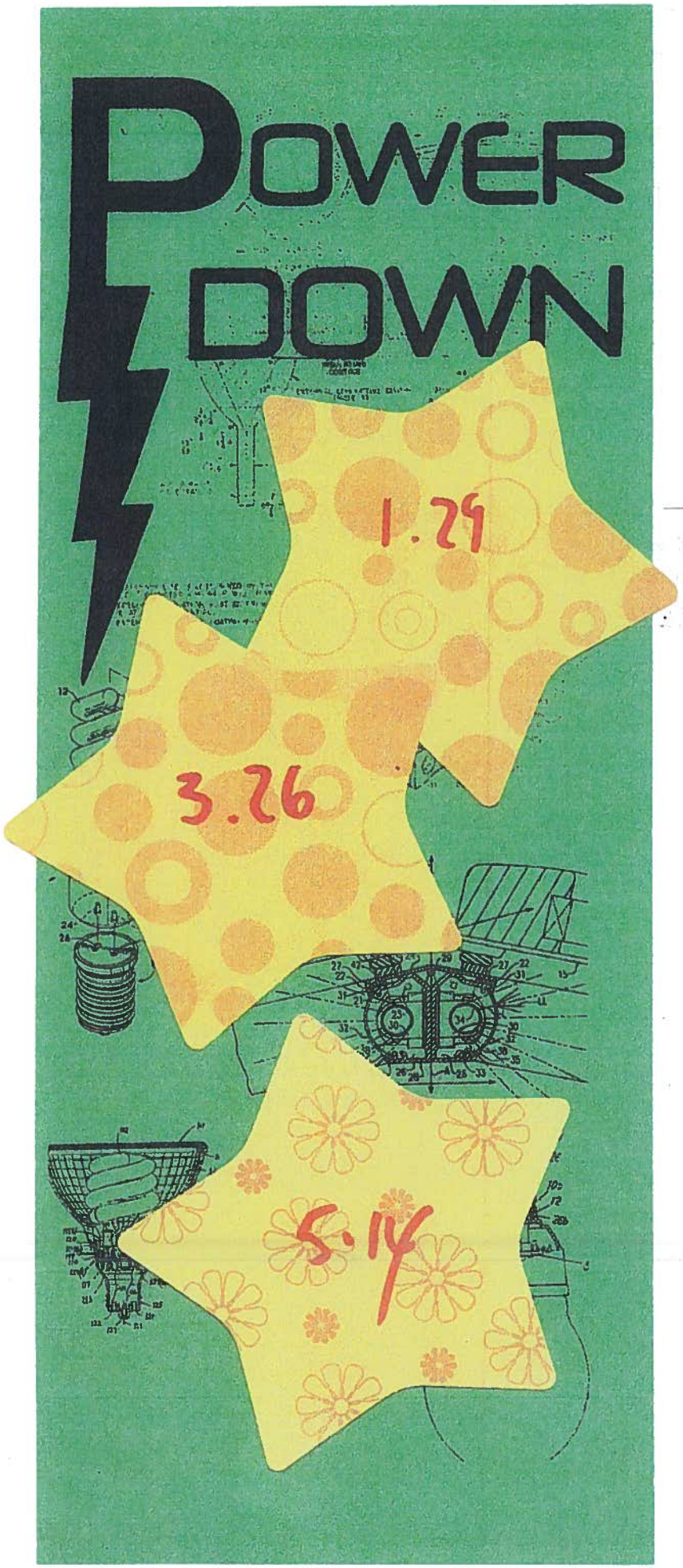
TUR
PRI
A

I AM POWERED DOWN!

THANK YOU!

HANG-TAGS CREATED BY HIGH SCHOOL STUDENTS at ACTON-BOXBOROUGH REGIONAL HS

ACTON · BOXBOROUGH
REGIONAL SCHOOL DISTRICT



STARS
AWARDED
and
POSTED ON
HIGH SCHOOL
CLASSROOM
DOORS

SWITCHPLATE
ART PROJECT

ACTON - BOXBOROUGH
REGIONAL HIGH SCHOOL

POWER DOWN

SWITCHPLATE
ART PROJECT
ACTON-BOXBOROUGH
REGIONAL HIGH SCHOOL

Power Down

ACTON-BOXBOROUGH
REGIONAL HIGH SCHOOL
CERTIFICATE AWARDED
for "POWERING DOWN"

Congratulations

and thanks for

aiding the Power Down
team this past school year.

Keep CHANGING the world

FUEL EFFICIENT VEHICLES

Municipal

VEHICLE/EQUIPMENT LIST SEPTEMBER 2011

NO.	DESCRIPTION	DEPARTMENT	LICENSE #	VIN #	MILES	HOURS
1	00 CHEVY K-1500 PICKUP	HWY	M64203	1GCEK14V1YZ277937	95800	
2	99 FORD TAURUS	ENG	M18638	1FAFP52U8XA182124	41600	
3	2011 FORD ESCAPE	HEALTH	M84520	1FMCU4K36BKA09398	1800	
4	99 FORD CONTOUR	BUILDING	M61360	1FAFP66L3XK152160	59200	
5	95 FORD CONTOUR	BUILDING	M52910	1FALP65L5SK221816		
6	08 FORD F450	NATURAL RESOURCES	M81043	1FDXF47Y38EC58605	26000	
7	04 FORD PKUP F-150	MUN. PROP	M62396	2FTRX18W34CA70091	42600	
8	00 FORD VAN	RECREATION	M53849	1FMRE11L5YHB09683	21900	
9	06 EXPEDITION	NATURAL RESOURCES	M84510	1FMPU16546LA75444	56200	
10	08 FORD F350	HWY	M38332	1FDWF31508EB93989	37900	
11	02 CHEV. 1500 PKUP	HWY	M55039	1GCEK14T22Z327248	101900	
12	94 FORD E-150 VAN	ENG	M1877	1FTEE14NXRHB67306	36000	
13	08 TOYOTA PRIUS	HEALTH	M30880	JTDKB20U987699150	13000	
14	10 FORD RANGER	DPW DIRECTOR	M55035	1FLR1FE2APA60267	1200	
16	02 FORD F-350 DUMP	NATURAL RESOURCES	M57807	1FDWF37S72ED10682	68100	
17	00 CHEV PKUP C-2500	HWY	M61739	1GCGC24R3YF432293	135900	
44	2010 MACK GU712	HWY	M84870	1M2AX01CBM001514	1000	48
45	85 DODGE W-300	HWY	M78924	1B7MW34W8FS613982	22400	
46	06 MACK 713 (GREEN)	HWY	M73416	1M2AG11C66M034942	16300	1448
47	08 FORD F-550	HWY	M77555	1FDAF57Y58EC58584	17300	
48	07 FORD F550 DUMP (GREEN)	HWY	M75813	1FDAF57Y77EA84645	?	
49	98 MACK RD694P	HWY	M35596	1M2P334C3WM001037	44800	4525
50	93 MACK CS 250 CABSN	HWY	M47323	VG6BA08B1PB600306	40900	
51	05 MACK CHN613	HWY	M73417	1M1AJO6Y85N001390	98950	3500
52	00 MACK RD690S	HWY	M61883	1M2P264C3YMO31114	106600	7733
53	02 MACK CH613	HWY	M38368	1M1AA18Y02W146397	129400	4850
54	99 MACK RD690P	HWY	M60002	1M2P288C0XM028076	73200	7070
55	98 MACK RD690P	HWY	M55099	1M2P260C5WM025074	63000	5530
56	74 MACK DM607 (YARD TRACTOR)	HWY	M55027	DM607X8455		
57	87 MACK RD685P	HWY	M37770	1M2P129C8HA011916	67200	6187
58	87 MACK RD685P	HWY	M70898	1M2P129CXHA011917	63600	7065
59	90 MACK RD690P	HWY	M70897	1M2P194C7MN008336	79900	6129
60	87 MACK RD685P	HWY	M55100	1M2P129C1HA011918	96600	8365
61	2010 MACK GU712	HWY	M84519	1M2AX01C6BM001489	700	22
62	95 MACK RD690P	HWY	M70896	1M2P260C2TM020538	62500	5888
63	99 CAT 938G LOADER	HWY	M38351	4YS01089		7082
64	08 CAT 938GII LOADER	HWY	M51149	CAT0938GJCRD02711		1907
65	96 JD 710D BACKHOE	HWY	M19898	T0710DJ822562		8472
66	89 JD 310 BACKHOE	NATURAL RESOURCES	M38358	CF755549		6683
67	73 JD 350B SHOVELDZR	HWY		186565T		2418
68	92 MOBIL SWEEPER M-9B	HWY	M1858	1A9T15DB2NR059013		5385
69	04 ELGIN PELICAN	HWY	M71772	S9211S	6000	1462
70	04 CAT IT38G LOADER	HWY	M35595	CATIT38GVCSX00561		8224
71	95 CAT D6H BULLDOZER	HWY		3ZF06111		3023

Highway Dept. (Rev. Sept 2011)

Note No New vehicles are planned at this time

NO.	DESCRIPTION	DEPARTMENT	LICENSE #	VIN #	MILES	HOURS
72	00 CAT DP 30K FORKLIFT	HWY		AT14C35464		990
73	97 BOBCAT 763H	HWY	M55034	512221312		2672
74	08 JD TRACTOR	NATURAL RESOURCES	M80731	LV4320P430355		545
75	73 KLAUER SNOWBLOWER	HWY	M82608	14672CHA15447		975
76	08 HOLDER C9.88H	HWY	M77554	52410549		395
77	09 MB MSV SW TRACTOR	HWY	M78353	1M9AC13229H849007		137
78	04 BOBCAT S160	HWY	M72322	526715183		1863
79	02 JD 5420 TRACTOR	MUN. PROP.	M55036	LV5420P246020		1720
80	CAT M313D EXCAVATOR	HWY	M82624	CATM313DCW3H00894		384
81	96 READ CV90D	HWY	M52931	CV90D1439		2287
82	98 MQ POWER DCA 25SSIU GENERATO	HWY	M74111	4GNFU1010NB000676		1980
83	08 938H CAT LOADER	HWY	M76328	CAT0938HEMJC00388		731
84	04 CONTRAIL C-10	HWY	M70899	4KNUC16244L161681		
85	88 IR 160 COMP 160	HWY	M38352	167734U88178		1036
86	07 MCCLOSKEY 512R SCREENER	HWY	M76349	MIL512RG12909		182
87	08 BANDIT RECYCLER 1680	HWY	M78354	4FMUS30228R001020		153
88	SEWER JETTER	BOH	M74112	1S9KU15145C381594		55
89	98 FORD F350	HWY	M60724	1FDWF37SIXEC67075	82600	
90	90 BRUSH BANDIT-100	NATURAL RESOURCES	M44281	3945		2155
91	95 HUDSON TRAILER	HWY	M41470	10HHBC102S1000226		
92	97 HUDSON TRLR HS-10	HWY	M55037	10HHS1002V1000012		
93	2011 STECO TRAILER	HWY	M84507	5EWWA4828B1254742		
94	84 ROGERS TRAILER	HWY	M46501	1RBH40202EAR19983		
95	73 CENTERVILLE TRL	HWY	M19899	15156HK		
96	08 J&J DUMP TRAILER	HWY	M79883	1S92S26208M006013		
97	99 SOMERSET TRL.ALF04	HWY	M61350	1S94A4828YM006491		
98	01 SOMERSET TRL.ALF0	HWY	M65719	1S94A48201M006825		
99	00 SOMERSET TRL.ALFO4	HWY	M35393	1S94A4824YM006553		
100	07 FORD F550 (GREEN)	MUN. PROP	M76216	1FDAF57Y97EA84646	18000	
101	08 CARLTON BRUSH CHIPPER	MUN. PROP	M77676	1J9PG011381167063		228
102	10 DEERE	MUN. PROP	M24242	LV3720H622158		185
103	00 FORD F-350	MUN. PROP	M57355	1FDWF37S1YED93468		
104	08 FORD F-350	NATURAL RESOURCES	M66718	1FTWF31518ED98676	14000	
105	80 HUDSON TRAILER	MUN. PROP	M35797	HS108148		
106	09 GIANT VAC	MUN. PROP.	M82603			
107	93 JACOBSEN HR-5111	NATURAL RESOURCES	M46521	691162022		
108	07 CHEV K2500	MUN. PROP.	M79327	1GCHK24KX7E573389	16600	
109	10 FORD 350	MUN. PROP.	M60724	1FDWF3HYXAEA95316	2000	
110	05 BIG TEX TRAILER	MUN. PROP.	M72474	16VPX182X52E46407		
111	65 WATER TANK TRL	MUN. PROP.	M46522	GC3087		
112	01 FORD F-350	NATURAL RESOURCES	M81042	1FDWF37S61ED14740	77900	
113	98 CHEV. K 1500	NATURAL RESOURCES	M55045	1GCEK14M6WZ103379		

NO.	DESCRIPTION	DEPARTMENT	LICENSE #	VIN #	MILES	HOURS
117	04 WELLS CARGO TRAILER	CD/EM	M70895	1WC200E1648003595		
118	87 CHEV K30 BRUSH	CD/EM	M67654	1GBJV34J6HS157255		
119	TRAILER	HWY				
120	88 CHEVY C-30 VAN	CEM	M79346	2GCGG31J7J4135287	50300	
121	09 FORD F-350 PICK UP	C D	M82614	1FTWF31518ED67038		
122	2000 FORD EXPEDITION	CD/EM	M79873	1FMPU16L8YLB37512		
123	1952 JEEP	C D/EM	M34726	835-8352	43327	
124						
125						
126						
127						
128						
129						
130						
131	93 FORD F350 (CREW CAB)	HWY	M73900	2FTJW35H4PCA97032	94200	
132						
133	11 CARMA Utility Trailer	HWY	M87916	5A3C612S9BL001639		
134						
135						
136	04 FORD EXPEDITION	IT	23YE67	1FMPU16L54LA17273	80000	
137	03 FORD EXPEDITION	IT	M77369	1FMPU16L23LA08612	41400	
138	08 SNOGO MP-3D 08284	HWY		CO8284		
140						
141	08 BIG T UTITLITY TRAILER (BLACK)	NATURAL RESOURCES	M77699	16VNX182782D07105		
142	97 UTILIMASTER TRAILER (GREEN)	NATURAL RESOURCES	M55936	88555		
143	89 AMERICAN TRAILER (RED)	NATURAL RESOURCES	M4030	46RFA1627KM002492		
OTHER EQUIPMENT UNDER THE CEMETERY DEPARTMENT						
2007 JACOBSEN HR5111		NATURAL RESOURCES		6911607618		
1994 GIANT VAC		NATURAL RESOURCES	M16551	220131		
2005 3001-CHW GIANT VAC		NATURAL RESOURCES	M76217	50263271		
JOHN DEERE MX6 ROTARY CUTTER		NATURAL RESOURCES		W00MX6X027310		
LIGHT TOWERS & MESSAGE BOARDS						
06 ALLMAND LIGHT TOWER		HWY	M75812	1791PR006		
06 ALLMAND LIGHT TOWER		HWY	M75425	1790PR006		
06 ALLMAND NIGHT LIGHT PRO		HWY	M75417	1793PR006		
ALLMAND NIGHT LIGHT PRO		HWY	M75416	1792PRO06		
TRAFFIC SIGN BOARD #1		HWY	M75418	0706AD55806		
TRAFFIC SIGN BOAD #2		HWY	M79419	0706AD55805		
07 TRAFFIC SIGN BOARD #3		HWY	M79876	1T9BM101X6M893141		
ORANGE TRAFFIC SIGN BOARD #4		HWY		S3345017		
92 DIETZ LIGHT BOARD		HWY	M48645	1915-4200029AC1		
04 IR LIGHT TOWER		CD/EM	M71756	4FVLSBDA74U343718		
04 IR LIGHT TOWER		CD/EM	M71757	4FVLSBDA54U343720		

A TRUE COPY, ATTEST:
TOWN CLERK, ACTON, MA

ABSTRACT OF THE ANNUAL TOWN MEETING HELD
MONDAY, APRIL 4, 2011, 7:00 P.M.
ACTON-BOXBOROUGH REGIONAL HIGH SCHOOL AUDITORIUM
WITH ADJOURNED SESSIONS HELD APRIL 5, 2011
NUMBER OF REGISTERED VOTERS ATTENDING TOWN MEETING
APRIL 4, 2011 – 294 AND APRIL 5, 2011 - 191

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TOWN OF ACTON
472 MAIN STREET
ACTON, MASSACHUSETTS, 01720
TELEPHONE (978) 929-6620
FAX (978) 929-6340
clerk@acton-ma.gov

TOWN CLERK

ABSTRACT OF THE ANNUAL TOWN MEETING HELD
MONDAY, APRIL 4, 2011, 7:00 P.M.
ACTON-BOXBOROUGH REGIONAL HIGH SCHOOL AUDITORIUM
WITH ADJOURNED SESSIONS HELD APRIL 5, 2011
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ARTICLE 14 **PERSONNEL, CAPITAL EQUIPMENT AND IMPROVEMENTS**
(Majority vote)

To see if the Town will raise and appropriate, transfer and/or appropriate from available funds, a sum of money to be expended by the Town Manager for the purchase, replacement or improvement of vehicles, equipment or infrastructure or funding positions as listed below, including related incidental costs, or take any other action relative thereto.

A.	Geographic Information System/Database Coordinator	$ 91,000	
B.	Engineering Van - 2011 FORD 15 PASSENGERS *	$ 26,000	
C.	Assessor's Department Hours	$ 12,000	
D.	Digitize Microfilmed Records	$ 60,000	ACTUAL
E.	Building Department Inspectional Vehicle - FORD ESCAPE-HYBRID	$ 29,875	→ $30,563
F.	NARA Park Parking Lot Extension	$ 75,000	
G.	Highway Department Salt Shed	$ 300,000	
H.	Permit Tracking System	$ 200,000	
I.	Cemetery Department Heating System	$ 20,000	
J.	Emergency Management Plan and Training	$ 60,000	
K.	Council on Aging Air Conditioning System	$ 25,000	
	Total	**$ 898,875**	

MOTION: **Mrs. Rosenzweig Morton** moves that the Town appropriate $898,875 to be expended by the Town Manager for the purposes set forth in the article, and to raise such amount,

$ 177,036 be raised from taxation,
$ 147,839 be transferred from Free Cash and
$ 574,000 be transferred from North East Solid Waste Committee Enterprise Fund retained earnings,

And that the Town authorize the Town Manager to sell, trade or dispose of vehicles and equipment being replaced and to expend any proceeds so received.

MOTION CARRIES UNANIMOUSLY

A TRUE COPY, ATTEST:

Ann K Sykaradek

TOWN CLERK, ACTON, MA

ACTON PUBLIC SCHOOLS
ACTON-BOXBOROUGH REGIONAL SCHOOL DISTRICT

September 29, 2011

Ms. Kelly Brown
Regional Coordinator
Green Communities Division
Massachusetts Department of Energy Resources
627 Main Street
Worcester, MA 01608

Dear Kelly:

The fuel-efficient vehicle policy that was adopted in the spring of 2010 by the Acton-Boxborough Regional School District and the Acton Public Schools remains in effect.

The school districts do not plan to replace any vehicles at this time.

The current vehicle inventory is included with this annual report. As you will likely recall, the school districts' bus fleet is rented, and so is not included in the vehicle inventory, per the protocol we discussed previously.

Sincerely,

Kate Crosby

Kate Crosby
Energy Advisor

16 Charter Road Acton, MA 01720 Phone: 978-264-4700 Fax: 978-264-3344

VEHICLE INVENTORY SEPTEMBER, 2011 Acton Public Sch

Model	Make	Model Year
1997 Ford F-350 Dump	F-350 XLT	1997
2006 Ford F-450 Dump	F-450 XLT	2006
2007 Chevy 3500 Dump	Silverado 3500 XL	2007
2007 Chevy 3500 Utility	Silverado 3500 XL	2007
2007 Chevy 3500 Pick-up	Silverado 3500 XL	2007
2007 Chevy Colorado	Colorado	2007

ools & Acton-Boxborough Regional School District

Year Purchased	Drive System	Weight Class	MPG	Annual Miles Driven
1997	Diesel	1 Ton	17 mpg	5461
2006	Gas	1 Ton	11 mpg	4500
2007	Gas	1 Ton	16 mpg	4666
2007	Gas	1 Ton	16 mpg	3333
2007	Gas	1 Ton	16 mpg	6666
2007	Gas	1/2 Ton	18 Mpg	6666

Total Fuel Consumption Estimated	Vehicle Function
7000 Gallons	Grounds Maintenance and Snow Plowing
2125 Gallons	Grounds Maintenance and Snow Plowing
1000 Gallons	Grounds Maintenance and Snow Plowing
714 Gallons	Diesel Mechanic and Snow Plowing
1428 Gallons	Grounds Maintenance and Snow Plowing
1200 Gallons	Grounds and General Maintenance

STRETCH CODE ADOPTION

Frank Ramsbottom

From: John Murray
Sent: Thursday, September 29, 2011 3:26 PM
To: Frank Ramsbottom
Subject: Stretch Code

Frank, I sent you a copy of this page before, I need to file it tomorrow morning. Have you completed it ?

John

CRITERION 5: Stretch Code Adoption

Please note below the dates when the Stretch Code concurrency period begins/began and when the Stretch Code becomes/became the sole energy building code in the municipality. Please list in Table below all residential and commercial projects for which building permits have been issued since the Stretch Code became the sole energy code along with accompanying information noted below.

DATE STRETCH CODE CONCURRENCY PERIOD BEGINS: 1/1/2011

DATE STRETCH CODE BECOMES SOLE ENERGY CODE: 6/1/2011

Stretch Code Table

Address of Building	New Residential (NR), Residential Retrofit (RR) or Commercial (C)?	Date Building Permit Issued	Dated Certificate of Occupancy Issued	Notes on Cert of Occupancy: If New Residential, provide final HERS Rating
3 Farmstead Way	6/1/2011	Residential	New House	30935	7/13/2011	Frank Melon
8 Beacon Court	6/23/2011	Residential	New House	30971	7/22/2011	Centennial Homes
232 Arlington Street (Unit 4)	5/13/2011	Residential	New House	30995	7/29/2011	West Acton Trio LLC
19 Spruce Street (Unit 6)	5/13/2011	Residential	New House	30996	7/29/2011	West Acton Trio LLC
230 Arlington Street (Unit 5)	5/13/2011	Residential	New House	30997	7/29/2011	West Acton Trio LLC
17 Spruce Street (Unit 7)	5/13/2011	Residential	New House	30998	7/29/2011	West Acton Trio LLC
28 Forest Road	5/27/2011	Residential	New House	31014	8/3/2011	Modular America Construction Corp
10 Patriots Rd	7/11/2011	Residential	New House	31026	8/5/2011	Paul Gaboury
231 Main St	6/1/2011	Residential	New House	31031	8/8/2011	Richfield Co., LLC
21 Spruce Street (Unit B)	5/13/2011	Residential	New House	31059	8/2/2011	West Acton Trio LLC
23 Spruce Street (Unit B)	5/13/2011	Residential	New House	31061	8/2/2011	West Acton Trio LLC
25 Spruce Street (Unit B)	5/13/2011	Residential	New House	31063	8/2/2011	West Acton Trio LLC
6 Sullivan Lane	8/31/2011	Residential	New House			Bently Building Corp
2 Sullivan Lane	8/31/2011	Residential	New House			Bentley Building
82 Charter Road	9/6/2011	Residential	New House			Mike Jeanson

None of the projects started since 6/1/2011 have received a C.O.

experienced (e.g. local banks loaning more to people purchasing stretch code homes, satisfied homeowners, frustrated builders, etc.)

TOWN OF ACTON
472 Main Street
Acton, Massachusetts, 01720
Telephone (978) 264-9632
Fax (978) 264-9630

Building Department

September 30, 2011

Re: Additional Information

As none of the projects have yet to be finished I have not heard any feedback from homeowners about the houses. I have heard from some builders frustrated with a new process. Also some of the HERS raters have been frustrated and surprised with having to supply documentation substantiating the proposed rating. Also we require that the values used by the HERS rater i.e. insulation R values, window U values heating equipment used to achieve the proposed HERS rating are reflected in the proposed building plans which are approved for construction.

Also not all of the HERS raters seem to fully understand the stretch code.

More training for both the building inspectors and the HERS raters would probably be helpful.

Lastly it appears that in most if not all of the cases the HERS rating is achieved primarily by calling out a high efficiency heating and cooling equipment while imply maintaining the requirements of the 2009 IECC for the building itself. This seems to a big loophole in the Stretch Code because it does not actually improve the efficiency of the building, the heat loss or heat gain of the building remains the same. State building code is not allowed to regulate the efficiency of heating equipment because it is a federal regulation and we cannot stop someone from changing to a less efficient heating or cooling system at a later date.

Frank Ramsbottom

Building Commissioner

BIG BELLY

Lili Early

From: Catherine Fochtman
Sent: Thursday, September 29, 2011 4:42 PM
To: John Murray
Cc: Lili Early
Subject: BIG BELLY Solar Compactors

Mr. Murray,

Two Big Belly compactors have been installed at NARA Park for approximately two years. I've consulted with my staff about their performance and it appears that they do not compact the trash deposited in them. They are attractive, keep trash contained, and keep bees and animals out. They are serving a useful purpose at the park and I would like to retain them, but they are not performing well as compactors.

Regards,
Cathy

Cathy Fochtman, CPRP, CPSI
Recreation Director
Town of Acton
472 Main Street
Acton, MA 01720
978-929-6640 ext. 0
978-929-6340 fax