

## **Executive Summary**

An Energy Efficiency and Conservation Block Grant totaling \$881,200 was awarded to the City of Quincy in November 2009 by the United States Department of Energy. This federal Block Grant, funded through the American Recovery and Reinvestment Act of 2009, has provided the City of Quincy the opportunity to begin comprehensively addressing its energy efficiency and conservation challenges. With the strong leadership of Mayor Thomas P. Koch, Quincy has enacted policies and ordinances that encourage renewable energy and energy efficiency across all sectors. As detailed in the following report, nine (9) separate activities were chosen for EECBG funding ranging from transportation to consumer education to energy efficient retrofits. Policies have been adopted, staff hired and the foundation laid for comprehensive energy planning and action to move Quincy toward a more sustainable future.

As Quincy nears the 24-month mark of the EECBG program, all activities are currently underway or substantially complete. Through September 30, 2011, total expenditures of \$559,605.18 represent 64% of Quincy's \$881,200 grant allocation. Based on original estimates (utilizing the Department of Energy's 2009 estimated benefits calculator), Quincy can expect significant annual energy savings and GHG emissions reduction as a result of its various EECBG-funded projects. A priority during project close-out is to work with project engineers to better understand actual performance data from the equipment installed and/or measures implemented. Total job creation to date, utilizing the federal Office of Management and Budget formula for ARRA funded projects, is 6.2 Full Time Equivalent (FTE) jobs.

This report is organized according to the City of Quincy's approved Energy Efficiency and Conservation Strategy under the EECBG. Provided below each criteria is a summary of the City of Quincy's progress as of November 2011. Attached to this document are numerous materials including, plans, reports, news coverage, and outreach and educational materials. This report, in its entirety, is posted to the City of Quincy's website at <http://www.quincyma.gov/Government/PLANNING/EECBG.cfm>.

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**EECS Criteria 1:** *Describe your government’s proposed Energy Efficiency and Conservation Strategy. Provide a concise summary of your measurable goals and objectives, which should be aligned with the defined purposes and eligible activities of the EECBG Program. These goals and objectives should be comprehensive and maximize benefits community-wide. Provide a schedule or timetable for major milestones. If your government has an existing energy, climate, or other related strategy please describe how these strategies relate to each other.*

**GOAL 1:** Reduce energy consumption in all sectors by maximizing retrofit and recycling opportunities.

Quincy continues to be focused on reducing energy consumption in buildings throughout the city. The Energy Smart Quincy (ESQ) campaign and website (EnergySmartQuincy.org) was launched in July 2010 at a press event that included local, state and federal officials. Through June 2011, the program processed approximately 400 requests for home energy assessments through the utility-sponsored Mass Save program. Data provided by the local utility, National Grid, indicates a healthy increase in participation in energy audits and weatherization for Quincy from 2009 to 2010, with some of the increase likely attributed to the ESQ campaign. Education and outreach continue to be a primary objective. With the help of consultant Mass Energy Consumers Alliance (Mass Energy), the City has conducted a total of 34 workshops and information sessions reaching over 5,000 individuals. A marketing plan was submitted in June 2010 for the ESQ program and finalized in September 2010.

Three years after adoption of “Single-Stream” recycling in Quincy, initial increases to the recycling rates have stabilized around 13% of overall waste tonnage collected. The EECBG funded a recycling barrel pilot program that provided free barrels to a targeted trash collection route. An analysis of the impact of the free barrels to approximately 3,200 Quincy homeowners indicates that recycling rates for those homes climbed close to 18%. The potential cost savings, if the program was rolled-out City-wide, could top \$100,000 in reduced waste tonnage fees.

The Quincy Community Action Program Head Start regional facility is slated to open in early winter 2012. Grant funds were used to pay for an energy efficient heating ventilation and air conditioning (HVAC) system for this 32,000 square foot facility. Project engineers estimate that annual GHG emissions reduction for the new system will be 78.055 lbs carbon dioxide annually.

**GOAL 2:** Reduce fossil fuel consumption through traffic signal synchronization and energy consumption through installation of LED traffic signals.



LED traffic signals were installed at the Brewer’s Corner intersection as part of a comprehensive intersection improvement project. See photo of groundbreaking ceremony attended by local, state and federal officials at left. Solar street lights, to increase nighttime visibility in this high crime area, are to be installed in the spring of 2012. Traffic signal

synchronization is underway with project completion expected in the late fall 2011.

**GOAL 3: Make new construction high performance through adoption of “Stretch” Appendix to the Mass Energy Code and green building incentives.**

The “Stretch” Appendix to the Mass Energy Code was adopted by the Quincy City Council in June 2010 and became effective January 2011. Several members of the City’s Inspectional Services Department were trained on the new energy code prior to its implementation. The City’s Planning Department is exploring building permit data to begin a preliminary analysis of the impact of the more stringent energy code for new construction. Green building design guidelines were adopted in January 2011 by the Quincy Planning Board and will impact over one billion dollars in planned private investment in the Quincy Center Urban Redevelopment District. Mass Energy, through its sub-contractor The Green Roundtable, has completed a preliminary analysis of local green building initiatives with a summary of metrics for green building standards including LEED, Energy Star and the “Stretch” Appendix to the Mass Energy Code.

**GOAL 4: Become a Green Community in the State of Massachusetts and reduce municipal energy consumption by 20% over five (5) years.**

Quincy is working steadily to meet the next application deadline for the Massachusetts Green Communities program on November 15, 2011. An energy use reduction plan that targets cutting municipal energy use by 20% over a five year period is being finalized. A vehicle procurement policy is also being finalized. Other criteria such as adoption of the “Stretch” Appendix to the Mass Energy Code and expedited permitting for renewable energy installations has been completed.

Please see attached timeline which summarizes EECBG accomplishments and milestones.

**EECS Criteria 2:** *Describe your government’s proposed implementation plan for the use of EECBG Program funds to assist you in achieving the goals and objectives outlined in the strategy describe in question #1. Your description should include a summary of the activities submitted on your activity worksheets, and how each activity supports one or more of your strategy’s goals/objectives.*

**Activity Title: Energy Manager**

**Goals Supported: GOAL 1, GOAL 3, and GOAL 4**

The City of Quincy created and filled the position of Manager of Energy, Waste and Recycling in January 2011. Mr. John Sullivan has been working primarily to complete the City’s energy use reduction plan and help the City meet the Green Communities designation requirements. Other Energy Manager initiatives include participation in the DOE’s Community Energy Strategic Planning Academy, analyzing public buildings and land for solar energy installations, working with National Grid on a “Whole Building

Assessment” energy audit for North Quincy High School, providing information and outreach on energy and recycling and working toward the goal of consolidating energy management responsibilities city-wide. The Energy Manager has also been tasked with helping to launch the Mayor’s Climate Change Committee. It is expected that this group will convene and establish a set of preliminary goals within the next few months.

**Activity Title: EE, Renewable Energy and Recycling Marketing and Education**



**Goals Supported: GOAL 1**

The City of Quincy hired Mass Energy in March 2010 to help educate the public about opportunities to save energy, increase recycling, purchase green power and adopt distributed energy resources such as solar. As detailed above and in the attachments to this document, the City of Quincy has made significant progress toward the goal of increasing public awareness of energy efficiency, renewable energy and recycling opportunities and impacts.

**Activity Title: Policy Development for Sustainable Energy Development**

**Goals Supported: GOAL 3**

This activity has included numerous policy initiatives including bringing the “Stretch” Appendix to the Mass Energy Code to the Quincy City Council for adoption in June 2010. The City’s consultant, Mass Energy, also provided a “Map of Environmental Initiatives,” to help inform comprehensive Climate Action Planning. Submitted for consideration to the Mayor of Quincy is a comparison of energy performance metrics which contrasts the “Stretch” code with LEED and ENERGY STAR standards. These resources are intended to inform development of policies to promote green building and sustainable practices. Finally, Mass Energy has provided a memorandum detailing the purpose, objectives and suggested composition of a Climate Action Committee.

**Activity Title: Energy Efficiency and Conservation Strategy Implementation**

**Goals Supported: GOAL 1, GOAL 2, GOAL 3, GOAL 4**

Mass Energy was retained to assist in the implementation of the EEC Strategy. Two deliverables were submitted for this activity. A model job description for the Energy Manager position was provided in April 2010. The consultant provided expert guidance on the credentialing and skills that the City might seek for this position. The second deliverable was an emerging opportunities memorandum, which coincides with the submission of this Annual Report on EEC Implementation. In addition to these policy

documents, Mass Energy has been providing extensive technical assistance to the City's Energy Manager.

**Activity Title: Energy Code Professional Development**

**Goals Supported: GOAL 3**

Building Inspectors in the City of Quincy Inspectional Services Department participated in training to help implement the "Stretch" Appendix to the Mass Energy Code as adopted by the Quincy City Council in June 2010.

**Activity Title: Energy Efficiency Retrofit - QCAP Head Start**

**Goals Supported: GOAL 1**



A competitive RFP process concluded with the awarding of grant funds to Quincy Community Action Program, a local non-profit agency, for the retrofit of a 1940's school building into a regional Head Start facility. Funds for an energy efficient HVAC system were awarded in September 2010 and project construction commenced in

December 2010. The project retains an existing building for educational use and includes other energy efficiency measures such as low e, insulated glass windows with double fin-type weather stripping; Energy Star appliances and thermally efficient R-11 rated insulation.

**Activity Title: Advanced Traffic Control System**

**Goals Supported: GOAL 2**

This project is currently underway with a completion date of Fall 2011. It is projected that traffic synchronization equipment and software will save motorists travelling on three main arterials in Quincy (Washington Street, Southern Artery and Willard Street) up to a 20% in time delay and gasoline. Based on data from the Massachusetts Department of Transportation, the project vicinity on Southern Artery experienced peak traffic counts of 31,400 in 2002; the Willard Street vicinity saw counts of 12,400 vehicles in 2008; and, the Washington Street vicinity had counts as high as 21,400 vehicles in 2002 as well.

**Activity Title: Purchase of Recycling Bins**

**Goals Supported: GOAL 1**



Thirty gallon recycling containers were procured in September 2011 and distributed by the City's waste and recycling contractor, Capitol Waste, to homes on the "Monday" route. Fridge magnets and literature on the City's Recycling programs were distributed with the barrels. An analysis of the recycling rate on the Monday route, performed by Mass Energy, found that recycling tonnage increased by 21%. The City's Energy Manager is exploring ways to expand the program city-wide.

**Activity Title: Intersection Safety and Efficiency Improvement**

**Goals Supported: GOAL 2**



LED traffic signals were installed and operational as of August 2011. The project is substantially complete and, prior to project closeout, data on estimated energy savings and GHG reductions will be obtained from the project contractors. See attached press coverage of Brewer's Corner ground breaking

**EECS Criteria 3:** *Describe how your government is taking into account the proposed implementation plans and activities for use of funds by adjacent units of local government that are grant recipients under the Program (response not mandatory for Indian Tribes).*

Quincy has ensured cooperation with neighboring communities through a number of efforts including coordinating the Energy Smart Quincy (ESQ) campaign with those consumer education programs supported by the Massachusetts State Energy Program. Mass Energy works closely with the City of Boston, Quincy's immediate neighbor to the north, and has experience with and contacts within several municipalities in the Boston regional area.

Another source of regional cooperation has been through the efforts of Quincy's new manager of Energy, Waste and Recycling who meets regularly with his counterparts in the neighboring towns of Braintree and Weymouth. Quincy participates in a regional waste management contract with those towns and has shared the success of the recycling barrel pilot, including procurement and recycling rate analysis. Future meetings will include a comprehensive review of the Energy Smart Quincy campaign, including marketing and promotional efforts and technical advice on the Green Communities designation process.

Finally, initiatives sponsored by the Metropolitan Area Planning Council and the Metropolitan Planning Organization on projects related to energy efficiency and sustainability have provided Quincy with several opportunities to coordinate with neighboring communities. Beginning from a broad perspective, Quincy participates in the MetroFuture Regional Plan which is based on the understanding that Metro Boston is an interconnected system: regional trends shape local conditions and every local decision has a broader impact on the regional well-being. On October 15, 2010, HUD Regional Administrator Richard Walega announced a \$4 million award of Sustainable Communities Grant to the Metropolitan Area Planning Council on behalf of the Metro Boston Consortium for Sustainable Communities, of which Quincy is a member. The grant supports implementation of MetroFuture goals and strategies, through local planning efforts, state and regional policy work, development of tools and data, and capacity building for local residents and leaders.



In October 2009, Quincy took advantage of the Massachusetts Area Planning Council's (MAPC) Bike Rack reimbursement program and purchased 34 bicycle racks. All 34 bicycle racks have been installed on public properties throughout the City. In August 2010, the City purchased an additional 44 bicycle racks through this program installing them throughout the City including parks and beaches. The City also partnered with the Quincy Chamber of Commerce and the Health, Beauty, and Wellness League to increase the number of bicycle racks that would serve the business community.

On July 12, 2010, the Planning Department in partnership with the Quincy Chamber of Commerce, and the Boston Metropolitan Planning Organization held a "Walkable Communities" workshop to discuss pedestrian issues in the Wollaston Business District and the surrounding neighborhood. The workshop consisted of a presentation from the Boston MPO staff, a community "walking audit" of the neighborhood, and follow-up brainstorming session to discuss possibilities for improvements.

Annual Report to the Department of Energy

Quincy's Planning Department will submit a letter interest to MAPC in November 2011 to seek further technical assistance for Energy Action Planning through the Metro Boston Consortium for Sustainable Communities.

**EECS Criteria 4:** *Describe how your government will coordinate and share information with the state in which you are located regarding activities carried out with grant funds to maximize energy efficiency and conservation benefits (response not mandatory for Indian Tribes).*

Quincy's strategy continues to be focused on working with state government on energy efficiency and renewables. As stated above, Quincy is working to gain the "Green Communities" designation and will be working very closely with the state Department of Energy Resources on this effort.

The City's Manager of Energy, Waste and Recycling will continue to work with state officials (particularly in the Energy Efficiency Division) and National Grid, the utility serving Quincy. A major component of the job is to identify the most beneficial measures, implement the measures, and receive utility rebates and state incentives.

The City's consultant, Mass Energy, also continues to promote energy efficiency and renewables by educating residential and commercial consumers in Quincy. Mass Energy has been and continues to be an important liaison between the state's Energy Efficiency Division, the utility and the public.

**EECS Criteria 5:** *Describe how this plan has been designed to ensure that it sustains benefits beyond the EECSBG funding period.*

The City of Quincy hired an energy manager in January 2011. This position is critical to helping the City reduce its energy consumption by 20% within 5 years, a reduction that will have positive impacts well into the future. The energy manager is tasked, in part, with quantifying energy savings and helping persuade local decision makers to fund an energy manager long term.

The City has also used grant funds to create permanent savings in its energy/recycling infrastructure that will continue beyond the grant period, such as the recycling barrel pilot program and traffic signal synchronization. The non-profit building retrofit and LED traffic signals will also reap benefits past the grant period.

The educational aspects of the strategy, specifically the Energy Smart Quincy campaign, will serve the City well long term. It is hoped that state energy programs will provide support for outreach and education after the block grant has been closed out.

Finally, a Climate Action Committee and Energy Action Plan remain on the agenda for Quincy. The process of reaching out to various stakeholder groups and devising goals and strategies for addressing climate change will keep energy efficiency and sustainability on the local political agenda and help sustain education and outreach to the general public.

**EECS Criteria 6:** *The President has made it clear that every taxpayer dollar spent on our economic recovery must be subject to unprecedented levels of transparency and accountability. Describe the*

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*auditing or monitoring procedures currently in place or that will be in place (by what date), to ensure funds are used for authorized purposes and every step is taken to prevent instances of fraud, waste, error, and abuse.*

The grant has been managed by the City's Department of Planning and Community Development (PCD). A Subrecipient Monitoring Plan and Schedule were finalized in June 2011. On-site Subrecipient monitoring is currently underway. A team from the Department of Energy conducted its own on-site monitoring in August 2011. It was noted during this visit that Quincy's grant management systems and Subrecipient monitoring efforts were a best practice model.

Quincy has reported quarterly to the Office of Management and Budget, via the FedReporting System, and to the Department of Energy, via the PAGE reporting system, in a timely manner since program inception. Copies of EECBG quarterly reports have been, and will continue to be, provided to the state's Department of Energy Resources.

The city has posted copies of this report to the City of Quincy's EECBG web page @ <http://www.quincyma.gov/Government/PLANNING/EECBG.cfm>

**Attachments**

1. Timeline of EECBG Accomplishments and Milestones
2. EECBG Budget, Total Expenditures through September 30, 2011
3. EECBG Recycling Program Report, Mass Energy Consumers Alliance, dated June 30, 2011
4. Energy Smart Quincy Participation, Mass Energy Consumers Alliance, dated June 17, 2011,
5. Marketing Plan for Energy Smart Quincy, Mass Energy Consumers Alliance, dated September 29, 2010
6. Energy Smart Quincy Marketing Materials
7. ESQ Outreach/Curriculum to Quincy Public Schools
8. 'Brewer's Corner Neighborhood Project Breaks Ground, Quincy Sun, April 28, 2011
9. "Quincy Helps Homeowners Reduce Energy Consumption," The Boston Globe South, July 29, 2010
10. "\$880,000 Federal Grant Goes to "Energy Smart Quincy" Campaign," The Patriot Ledger, July 13, 2010
11. ESQ Follow-up Survey
12. City of Quincy, Map of Environmental Initiatives, Nexus, a project of the Green Roundtable, March 2011
13. Climate Change Committee Mission and Composition, Mass Energy Consumers Alliance, dated March 28, 2011
14. Traffic Synchronization Project Locus Maps, Google Maps, July 2011
15. DOE On-site Visit Presentation, Quincy PCD, August 2011
16. Links to Energy Smart Quincy website and Video Clips On-Line

<http://www.energysmartquincy.org>

<http://www.qatv.org/videoclip/energy-smart-quincy-energy-savings-offers>

<http://www.qatv.org/videoclip/library-energy-smart-quincy-clean-energy>

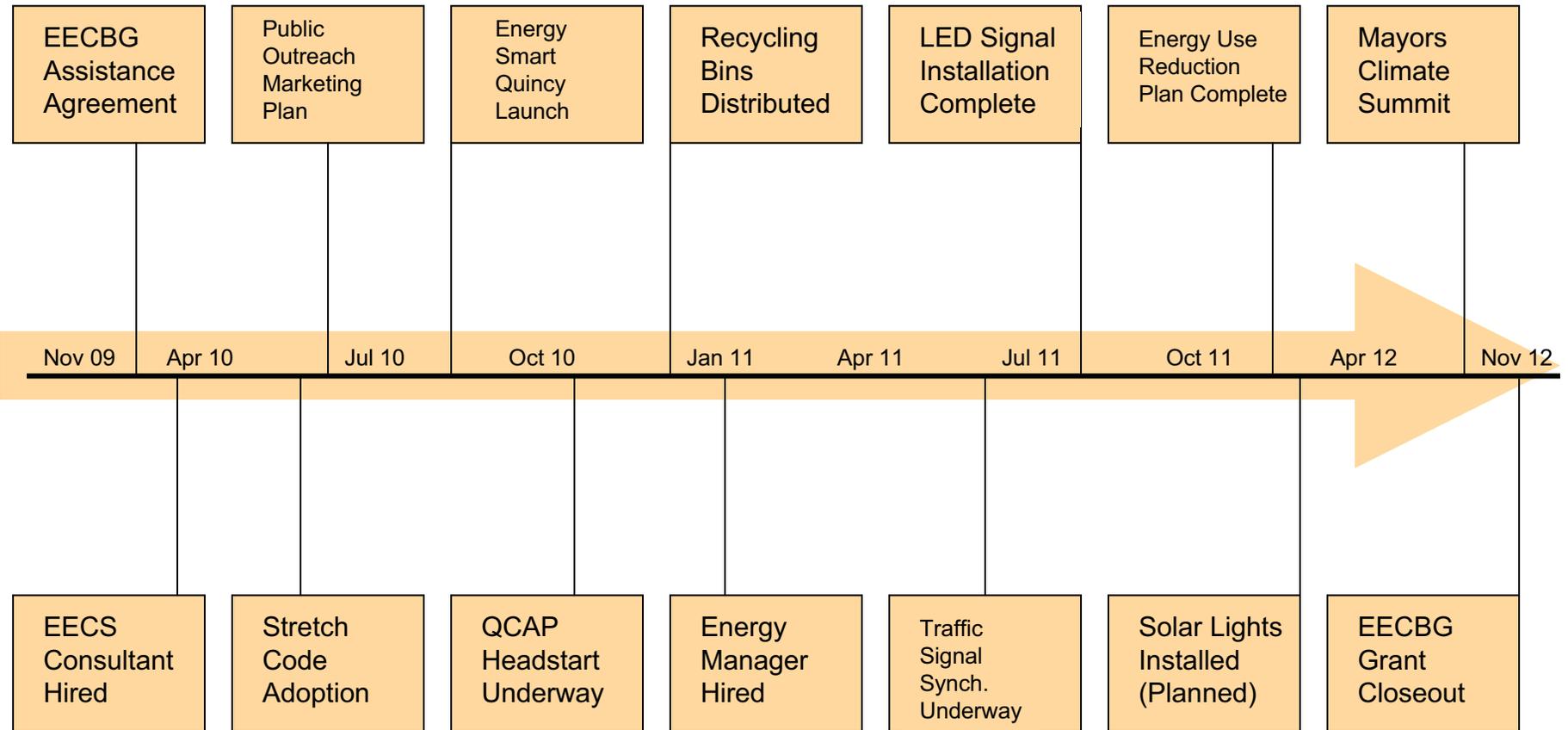
<http://www.qatv.org/videoclip/energy-smart-quincy-renewable-energy>

<http://www.qatv.org/videoclip/energy-smart-quincy-home-energy-assessments>

<http://www.qatv.org/videoclip/energy-smart-quincy-recycling>

# City of Quincy Energy Efficiency and Conservation Strategy Implementation

## Key Accomplishments and Milestones



**Total Expenditures to date DE-SC0003078 EECBG Award \$881,200.00**

Project Number	1	2	3	4	5	6	7	8	9	
EECBG Attachment	2a	2b	2c	2d	2e	2f	2g	2h	2i	
Project Description	QCAP Headstart	Adv. Traffic Control Syst.	Intersection Safety & Eff. Improvement	Energy Manager	Engy Eff. Ren Engy and Recycl Education	Energy Code Professional Development	Policy Develop. For Sustainable Engy Devel.	Purchase of ReCycling Bins	EEC Strategy Implementation	
Object Class Categories	5. Energy Eff. Retrofits	7. Transportation	12. Lighting	6. EE&C for Bldgs and Fac.	6. EE&C for Bldgs and Fac.	8. Codes and Enforcement	8. Codes and Enforcement	10. Material Recycling	2. Tech Consultant Svcs	Total

**EECBG Total Expenditure through-6/30/11**

Personnel	\$0.00	\$0.00	\$0.00	\$43,846.30	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43,846.30
Fringe Benefits	\$0.00	\$0.00	\$0.00	\$2,492.32	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,492.32
Travel	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Equipment	\$0.00	\$0.00	\$140,487.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$140,487.00
Supplies	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$53,148.41	\$0.00	\$53,148.41
Contractual	\$186,121.00	\$0.00	\$12,191.00	\$0.00	\$64,893.75	\$0.00	\$16,561.25	\$0.00	\$19,048.61	\$298,815.61
Construction	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total Direct Charges</b>	<b>\$186,121.00</b>	<b>\$0.00</b>	<b>\$152,678.00</b>	<b>\$46,338.62</b>	<b>\$64,893.75</b>	<b>\$0.00</b>	<b>\$16,561.25</b>	<b>\$53,148.41</b>	<b>\$19,048.61</b>	<b>\$538,789.64</b>
Indirect Charges	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Administrative Costs	\$3,937.49	\$1,047.57	\$4,322.10	\$1,759.45	\$2,246.30	\$297.04	\$1,231.52	\$1,301.10	\$4,672.97	\$20,815.54
<b>Totals</b>	<b>\$190,058.49</b>	<b>\$1,047.57</b>	<b>\$157,000.10</b>	<b>\$48,098.07</b>	<b>\$67,140.05</b>	<b>\$297.04</b>	<b>\$17,792.77</b>	<b>\$54,449.51</b>	<b>\$23,721.58</b>	<b>\$559,605.18</b>



**To:** City of Quincy Planning and Community Development  
**From:** Mass Energy Consumers Alliance – Larry Chretien, Maura O’Gara, and Stephan Wollenburg  
**CC:** Chris Walker & John Sullivan  
**Date:** June 30, 2011  
**Re:** EECBG Recycling Program Report for Quincy, MA

**Program Summary:**

The City of Quincy has had a curbside recycling program in place since 1988, but on July 1, 2008 adopted a "single stream" program that has resulted in a higher recycling rate. In most communities with single stream, residents are offered a large recycling bin capable of handling a mix of paper, glass, metal, and plastics. In Quincy, many residents have small blue recycling bins and many do not. The city used EECBG funds to purchase approximately **3,200 32-gallon recycling barrels** as part of a pilot program to see if the larger barrels further increased participation in the city's recycling program. Near the end of November 2011, the new recycling barrels were distributed mostly to single-family homes whose waste and recycling were collected on Mondays. This route was selected because it had the greatest number of single-family homes. There are approximately 6,615 households served on the Monday route, with approximately 3,000 single-family homes. With all 3,200 barrels distributed, 48% of the households on the Monday route received barrels. The barrels were distributed by Capital Waste, the company that collects the city's waste and recycling.

**Program Data, Analysis, and Conclusions:**

*Definitions and Formulas:*

**Municipal Solid Waste (MSW)** = waste from households served (1–8 units and public housing), public schools, and municipal buildings weighed at transfer station in Braintree, MA

**Recycling** = recyclable materials from households served (1–8 units and public housing), public schools, and municipal buildings weighed at recycling center in Avon, MA

*NOTE:* Construction debris, hazardous waste, yard waste, and white goods are not included in MSW or recycling.

**Recycling Rate** =  $\text{Recycling} / (\text{Recycling} + \text{MSW}) \times 100$

**Average Recycling Rate** =  $\text{Total Recycling (for specified period)} / (\text{Total Recycling (for specified period)} + \text{Total MSW (for specified period)}) \times 100$





**Percent Increase in Average Recycling Rate** = Average Recycling Rate (for specified period) – Average Recycling Rate (for other specified period)/ Average Recycling Rate (for other specified period) x 100

**Percent Increase in Recycling Tonnage** = Total Recycling (for specified period) – Total Recycling (for earlier specified period)/Total Recycling (for earlier specified period) x 100

*Monday Route Municipal Solid Waste and Recycling Tonnage FY 10 (Jul –Apr) and FY 11 (Jul – Apr)*

<b>FY 10</b>	<b>MSW (tons)</b>	<b>Recycling (tons)</b>	<b>FY 11</b>	<b>MSW (tons)</b>	<b>Recycling (tons)</b>
<i>Jul '09</i>	451.49	62.24	<i>Jul '10</i>	435.73	50.48
<i>Aug '09</i>	490.49	78.3	<i>Aug '10</i>	499.17	90.1
<i>Sep '09</i>	498.33	78.41	<i>Sep '10</i>	400.03	78.61
<i>Oct '09</i>	396.24	70.74	<i>Oct '10</i>	402.91	63.12
<i>Nov '09</i>	531.29	87.6	<i>Nov '10</i>	524.48	84.64
<i>Dec '09</i>	390.42	68	<i>Dec 10*</i>	336.66	77.95
<i>Jan'10</i>	433.95	60.63	<i>Jan '11</i>	392.55	88.01
<i>Feb '10</i>	419.84	52.44	<i>Feb '11</i>	330.97	77.75
<i>Mar'10*</i>	512.00	78.22	<i>Mar '11</i>	384.65	70.96
<i>Apr'10</i>	470.46	75.64	<i>Apr '11</i>	399.60	90.68
<b>Total</b>	<b>4594.51</b>	<b>712.22</b>	<b>Total</b>	<b>4106.75</b>	<b>772.3</b>

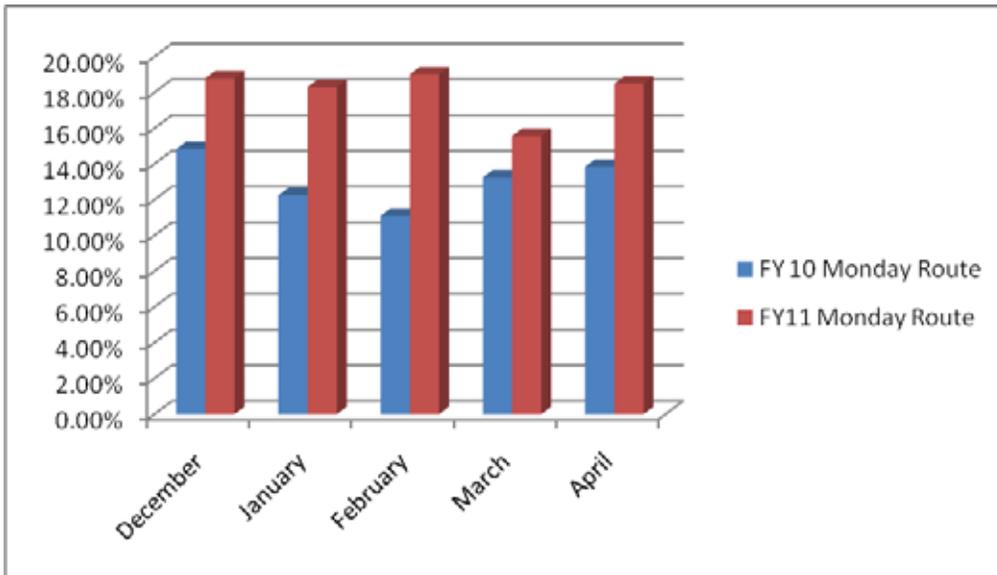
*\* In March 2010 there was a significant increase in citywide MSW and Recycling due to flood damage, but homes on this route were less affected than those on some other routes. December 2010 marked the first full month with the new recycling barrels.*



Comparison of Monday Route FY 10 (Dec – Apr) to FY 11 (Dec – Apr)\*

\*months of Recycling Barrel Project

*Average Recycling Rates Monday Route FY 10 (Dec – Apr) and FY 11 (Dec – Apr)*



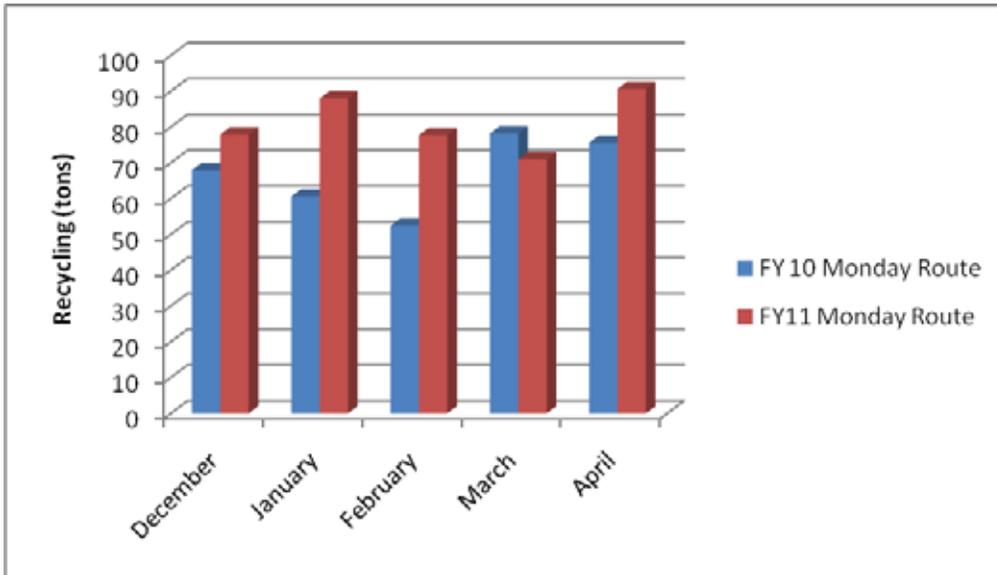
**Average Recycling Rate (Monday Route Dec '09 – Apr '10)** =  $334.93 / (334.93 + 2,226.67) \times 100 = 334.93 / 2,561.6 \times 100 = 13.08\%$

**Average Recycling Rate (Monday Route Dec '10 – Apr '11)** =  $405.35 / (405.35 + 1,844.43) \times 100 = 405.35 / 2,249.78 \times 100 = 18.02\%$

**Percent Increase in Average Recycling Rate** =  $18.02 - 13.08 / 13.08 \times 100 = 4.94 / 13.08 \times 100 = 37.77\%$

*Note: March 2010 flood damage affected MSW and recycling tonnage*

*Recycling Tonnage Monday Route FY 10 (Dec – Apr) and FY 11 (Dec – Apr)*



**Total Recycling Tonnage FY 10 (Dec – Apr) = 334.93**

**Total Recycling Tonnage FY 11 (Dec – Apr) = 405.35**

**Percent Increase in Recycling Tonnage =  $405.35 - 334.93 / 334.93 = 21.03\%$**

*Note: March 2010 flood damage affected MSW and recycling tonnage*



Comparison of Monday Route to Citywide (without Monday Route)

Comparison of Average Recycling Rates for Monday and Citywide routes FY 11 (Dec – Apr):

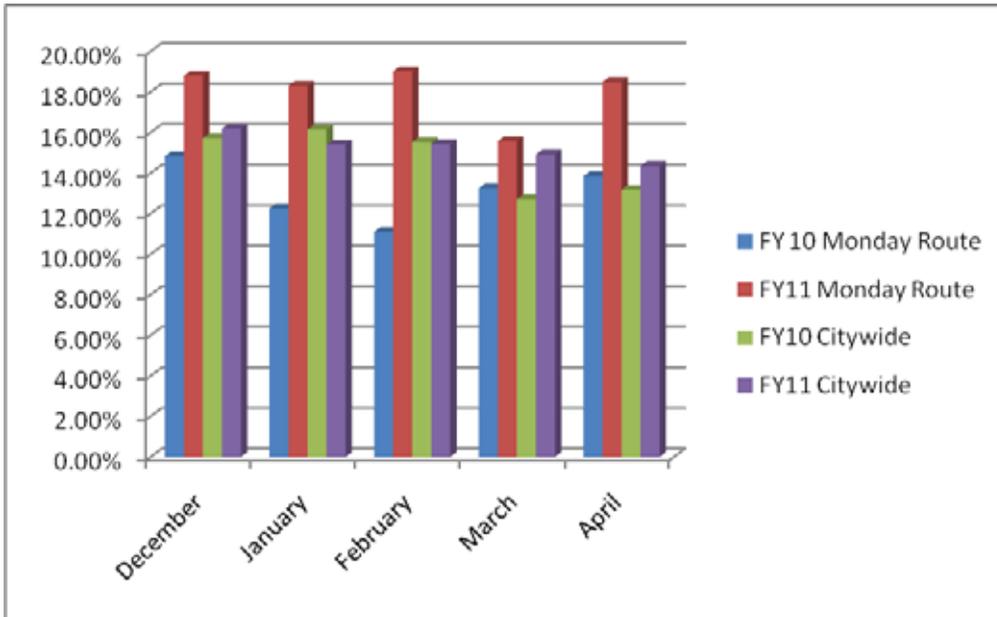
Monday Route				Citywide (without Monday Route)			
FY 11 (Dec – Apr)	MSW (tons)	Recycling (tons)	Recycling Rate	FY 11 (Dec – Apr)	MSW (tons)	Recycling (tons)	Recycling Rate
Dec'10	336.66	77.95	18.80%	Dec'10	2028.76	392.32	16.20%
Jan'11	392.55	88.01	18.31%	Jan'11	1783.98	324.8	15.40%
Feb'11	330.97	77.75	19.02%	Feb'11	1715.03	312.91	15.43%
Mar'11	384.65	70.96	15.57%	Mar'11	2027.90	355.85	14.93%
Apr'11	399.60	90.68	18.50%	Apr'11	1,995.05	334.6	14.36%
<b>Total</b>	<b>1,844.43</b>	<b>405.35</b>	<b>Average Recycling Rate: 18.02%</b>	<b>Total</b>	<b>9,550.72</b>	<b>1,720.48</b>	<b>Average Recycling Rate: 15.26%</b>

Comparison of Percent Increase in Average Recycling Rates for Monday and Citywide routes FY 10 (Dec – Apr) and FY 11 (Dec – Apr):

	Recycling Rates		
	FY 10 (Dec – Apr) Recycling Rate	FY 11 (Dec – Apr) Recycling Rate	% Increase
<b>Monday Route</b>	13.08%	18.02%	<b>37.77%</b>
<b>Citywide (without Monday route)</b>	14.49%	15.26%	<b>5.31%</b>



*Average Recycling Rates Monday Route and Citywide FY 10 (Dec – Apr) and FY 11 (Dec – Apr)*





Citywide Municipal Solid Waste and Recycling Tonnage July 2007 – April 2011

FY08	MSW (tons)	Recycling (tons)	FY09	MSW (tons)	Recycling (tons)	FY10	MSW (tons)	Recycling (tons)	FY11	MSW (tons)	Recycling (tons)
Jul '07	2922.00	317.00	Jul '08*	2833.93	372.00	Jul'09	2933.90	420.92	July'10	2502.60	384.6
Aug '07	2970.00	353.00	Aug '08	2568.89	363.00	Aug'09	2480.22	362.27	Aug'10	2512.93	393.87
Sep '07	2551.00	316.00	Sep '08	2679.40	438.00	Sep '09	2664.21	430.33	Sept'10	2534.00	453
Oct '07	2886.00	381.00	Oct '08	2597.07	406.26	Oct '09	2572.98	384.99	Oct'10	2366.05	413.24
Nov '07	2846.00	364.00	Nov '08	2206.17	369.05	Nov '09	2407.99	403.54	Nov'10	2433.12	442.76
Dec '07	2457.00	333.00	Dec '08	2641.97	491.85	Dec '09	2581.60	476.75	Dec'10	2365.42	470.27
Jan '08	2682.00	360.00	Jan '09	2240.22	381.29	Jan'10	2279.81	416.25	Jan'11	2176.53	412.81
Feb '08	2229.00	321.00	Feb '09	2060.46	344.10	Feb '10	1999.16	342.81	Feb'11	2046.00	390.66
Mar '08	2429.00	315.00	Mar '09	2293.08	374.08	Mar'10*	3116.88	457.53	Mar'11	2412.55	426.81
Apr '08	2755.00	336.00	Apr '09	2675.26	405.36	Apr'10	2790.37	427.59	Apr'11	2394.65	425.28
May '08	3112.00	320.00	May '09	2823.65	375.14	May'10	2553.18	395.53	<b>Total</b>	<b>23,743.85</b>	<b>4,213.30</b>
Jun'08	2871.00	314.00	Jun'09	2717.87	409.08	June'10	2877.57	452			
<b>Total</b>	<b>32,710.00</b>	<b>4,030.00</b>	<b>Total</b>	<b>30,337.97</b>	<b>4,729.21</b>	<b>Total</b>	<b>31,257.87</b>	<b>4,970.51</b>			

\* Single Stream Recycling begins

\*Increase in tonnage corresponds with March flood damage

**Average Recycling Rate Citywide FY 08** =  $4,030 / (32,710 + 4,030) \times 100 = 4,030 / 36,740 \times 100 = 10.97\%$

**Average Recycling Rate Citywide FY 09** =  $4,729.21 / (30,337.97 + 4,729.21) \times 100 = 4,729.21 / 35,067.18 \times 100 = 13.49\%$

**Average Recycling Rate Citywide FY 10** =  $4,970.51 / (31,257.87 + 4,970.51) \times 100 = 4,970.51 / 36,228.38 \times 100 = 13.72\%$

**Average Recycling Rate Citywide FY 10 (Jul '09 – Apr '10)** =  $4122.98 / (4122.98 + 25827.12) \times 100 = 4122.98 / 29950.1 \times 100 = 13.76\%$

**Average Recycling Rate Citywide FY 11 (Jul '10 – Apr '11)** =  $4213.30 / (4213.30 + 23743.85) \times 100 = 4213.30 / 27957.15 \times 100 = 15.07\%$



Cost Savings from Larger Barrel Distribution

	Recycling (Tons)	Increase in recycling tonnage %	Savings - \$101.3/Ton*	
Monday FY10-11 Recycling tonnage increase (Dec-Apr)	70.42	21.03%	\$7,133.55*	<i>*Not a full year</i>
Non-Monday FY10-11 Recycling tonnage increase (Jul-Apr)	30.24	0.89%	\$3,063.31*	<i>*Not a full year</i>
FY10-FY11 Citywide tonnage increase, assuming Monday % increase	1,045.06	21.03%	\$105,864.99	
FY10-FY11 Citywide tonnage increase, assuming non-Monday % increase	44.07	0.89%	\$4,464.17	
Estimated savings attributable to city-wide distribution of barrels	-	-	\$101,400.82	

*\*We assume that for every ton recycled, one less ton of waste is created. Therefore, a 1 ton increase in recycling yields a savings of the cost of waste removal plus the value of recyclables, or \$91.3 + \$10/ton.*



**Conclusions:**

Quincy's average recycling rate citywide is improving. After the adoption of single stream, Quincy's average recycling rate for the year increased by 18.68%. The average recycling rate for FY 2010 was slightly less than the previous year due to the increase in total tonnage caused by March flood damage. The current average recycling rate for FY 2011 (Jul '10 – Apr '11) is 15.07%, which is a 9.52% increase to the average recycling rate of the previous year for the same months (Jul '09- Apr '10).

Quincy's EECBG Recycling Barrel Program is successfully increasing participation in the City's recycling program for the Monday route. In FY 10 (Jul '09 – Apr '10) and FY 11 (Jul '10 – Nov '11), before the program was implemented, the average recycling rates for the Monday route were in line with or below the citywide average recycling rates since the adoption of single stream recycling. The barrels have been in full use for the last 5 months (Dec '10 – Apr '11). When comparing those specific months for FY 10 and FY 11, the average recycling rate for the Monday route increased from 13.08% to 18.02%, a 37.77% increase in the average recycling rate, and the amount of recycling tonnage increased by 21.03%. As the average recycling rate for the citywide collection (without Monday Route) during the same period increased by only 5.31%, the significant increase in the average recycling rate for the Monday route can be attributed to the Recycling Barrel Program. This change was comprised of a significant decrease in waste, and a small (<1%) increase in recycling. This suggests that the increase in recycling rate that occurred citywide, excluding Monday, might be largely as a result of the flood damage that occurred in FY10. As the barrels were only distributed to 48% of households served on the Monday route, there is potential to increase the average recycling rate for that route well above 37.77%. We would not expect this number to double, however, as the initial distribution focused on single-family homes, which tend to yield better recycling rates than multi-family homes. However, the program has not been running long enough to determine if the increase in recycling will persist. Quincy's EECBG Recycling Barrel Program has improved Quincy's recycling program by significantly increasing the average recycling rate and the amount of recycling tonnage on the Monday Route. If the Recycling Barrel Program were combined with a successful waste reduction program, which would lower Quincy's MSW tonnage, the City could expect an even greater increase in recycling rates.

The increase in recycling rates due to the distribution of larger recycling barrels will result in demonstrable cost savings to the city, as shown in the last table above. Just in the first 5 months after their distribution, by increasing recycling tonnage the barrels have saved the city more than \$7,000. Had the entire City shown an increase of 0.88% in recycling tonnage from FY10 to FY11, the increase observed to date from FY10 to FY11 on the non-Monday routes, the City would save approximately \$4,500. This figure is the product of assuming a 0.88% increase in recycling tonnage over the citywide FY10 baseline and the estimated savings per ton, or \$91.3+\$10. If, however, we assume the 21% increase in recycling tonnage that occurred on the Monday route occurred citywide, the savings would be almost \$106,000. This means that if the city had distributed barrels throughout the city, it would have yielded an annual savings of approximately \$100,000. Please note that this figure does not account for the fact that only 48% of households along the Monday route received barrels or the fact that a disproportionately high number of these households were single-family.





Note that the above analysis does not factor in the cost of purchasing and distributing recycling barrels. Mass Energy did not have that information and our task was to simply analyze the recycling rate. But it is clear that the City has the information needed to do a complete benefit/cost analysis, looking at the cost of barrels versus the benefits over time. We also recommend that the City consider replenishing the blue recycling bins that have been in the city since the recycling program began. Those bins are less expensive and may deliver a comparable benefit over time.

*Data for Analysis:* Capital Waste provides monthly reports to the City of Quincy. These reports provide the tonnage (per day) of MSW weighed at the Braintree Transfer Station in Braintree, MA and the amount of Recycling weighed at the Recycle America plant in Avon, MA. All numbers used in this analysis are taken from these reports. According to Capital Waste, the Recycle America plant sometimes closes before Capital Waste finishes dropping off Monday's recycling. When that occurs, the recycling material not delivered in time is weighed the next day and is counted toward Tuesday's route.





## MEMORANDUM

**TO:** Steve Connelly, Principal Planner  
**FROM:** Larry Chretien and Maura O’Gara, Mass Energy  
**CC:** Chris Walker, Director of Policy and Information  
**DATE:** June 17, 2011  
**RE:** Energy Smart Quincy Participation

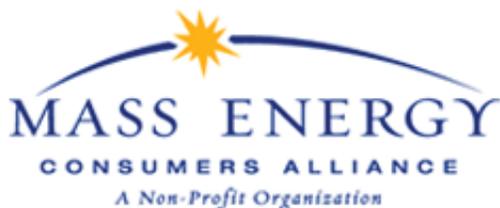
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Energy Smart Quincy (ESQ) launched on July 12, 2010. The program seeks to educate residents and businesses about energy efficiency, renewable energy, and recycling. Mostly, the program focuses on increasing participation in Mass Save, a statewide energy-efficiency program that offers no-cost energy assessments, rebates, discounts, and financing for energy-efficiency measures.



Between 7/12/10 and 5/31/11, a total of 373 residents or businesses in Quincy expressed an interest in participating in the Mass Save program and have provided their contact information, an average of 35.5 participants per month. ESQ is also contacted by residents interested in clean energy and recycling, but they are not included in the total. Mass Save participants can provide their information either through the ESQ web site, by form (at presentations, programs, and events), by phone, or by email.

ESQ is unable to determine how many of the 373 participants between 7/12/10 and 5/31/11 actually received an energy assessment or benefitted from other Mass Save incentives. National Grid can provide the number of Quincy residents who received energy assessments and took advantage of certain rebates, including those for refrigerators, heating systems (space and water), programmable thermostats, windows, and weatherization (air sealing and/or insulation). The latter is often the most cost-effective way to save energy and ESQ is working to increase significantly the number of Quincy residences that are weatherized through the Mass Save program. National Grid recently provided ESQ with Mass Save participation information for Quincy residents during the period of July 1, 2010 – March 31, 2011, approximately the first nine months of the ESQ program, and for comparison, July 1, 2009 – March 31, 2010. Below is a chart with some of the information provided by National Grid. The chart shows the number of energy assessments done and the number of homes weatherized in Quincy during those periods.



	<b>Number of Energy Assessments (Quincy, MA)</b>	<b>Number of Homes Weatherized (Quincy, MA)</b>
7/1/09 – 3/31/10	310	50
7/1/10 – 3/31/11	399	112
<b>Difference:</b>	<b>89</b>	<b>62</b>

Percent Increase in Energy Assessments =  $89/310 \times 100 = 28.7\%$

Percent Increase in Weatherization =  $62/50 \times 100 = 124\%$

Based on the above information, there was a 28.7% increase in home energy assessments and a 124% increase in the number of homes weatherized in Quincy. ESQ cannot determine if the increase in the number of assessments or in the number of homes weatherized is a result of ESQ outreach.

In separate memos, we will report on the number of people enrolled in green power programs and a status report on the city's recycling rate.



## ***Marketing Plan for Energy Smart Quincy***

***September 29, 2010***

### **Contents**

- I. Background Information**
- II. Program Objectives**
- III. Program Strategies**
- IV. Schedule of ESQ Marketing and Outreach**
- V. Budget Summary**

### **Appendix I**

### **Appendix II**

### **Appendix III**

## **I. Background Information**

### **Energy Efficiency and Conservation Block Grant Strategy**

The City of Quincy was awarded an Energy Efficiency and Conservation Block Grant (EECBG) by the U.S. Department of Energy (DOE). The EECBG supports a DOE-approved strategy containing a number of projects primarily intended to reduce energy consumption in Quincy. In May 2010, the City of Quincy hired Mass Energy Consumers Alliance to oversee parts of this strategy, including a public education program, Energy Smart Quincy, to increase participation in energy efficiency programs, renewable energy programs, and the City's Single Stream recycling program.

## Program Description

Energy Smart Quincy (ESQ) is a two-year public education program that will work with the City, Mass Energy Consumers Alliance, National Grid, energy efficiency service providers, Massachusetts Clean Energy Center, and local citizen and business groups to educate the Quincy community about energy efficiency, renewable energy, and recycling.

Energy Smart Quincy seeks to increase participation in existing energy efficiency programs, renewable energy programs, and the City's Single Stream recycling program through a community-based approach. This approach relies on a local presence to market, inform, answer questions, motivate, and facilitate in order to effectively increase participation in these existing programs. Although the City already has local presence focusing on increasing recycling, the ESQ outreach provides opportunities to support the City's efforts.

"Community-based social marketing draws heavily on research in social psychology which indicates that initiatives to promote behavior change are often most effective when they are carried out at the *community level* and involve *direct contact* with people. The emergence of community-based social marketing over the last several years can be traced to a growing understanding that conventional social marketing, which often relies heavily on media advertising, can be effective in creating public awareness and understanding of issues relating to sustainability, but is limited in its ability to foster behavior change."

Doug McKenzie-Mohr and William Smith, "Fostering Sustainable Behavior – An Introduction to Community-Based Social Marketing," 1999 and subsequent editions.

With limited funds available for the Energy Smart Quincy education program, this plan focuses on maximizing no or low cost methods of sharing information, including online tools, earned media, and tabling at community events. It also focuses on maximizing existing networks within faith communities, civic and professional associations, neighborhood organizations, environmental interest groups, and municipal entities, such as the public library and school system, to effectively reach out to a variety of people in Quincy.

Descriptions of the programs that will be promoted by ESQ are contained in Appendix I.

## II. Program Objectives

**Increase participation in energy efficiency programs, especially residential participation in the Mass Save program for homes of 1-4 units. This is the primary objective of the program.**

In collaboration with National Grid, the ESQ Program Coordinator will promote the utilities' energy efficiency programs for buildings — Mass Save for 1–4 family homes, Multi-Family, Small Business, and Large Business — but most of the education and assistance provided will focus on homes of 1-4 units. Last year, 306 Quincy homes of 1-4 units participated in the Mass Save no-cost home energy assessment program. Of those, 37 implemented weatherization (defined here as air sealing and insulation), which is generally the most cost-effective method of saving significant amounts of home energy. The Coordinator will work with National Grid, who provided the above figures, to track the number of 1-4 unit households in Quincy that get energy assessments and the number of households that follow through on recommended measures, referred to as conversions<sup>1</sup>. The program's goal is to increase the number of energy assessments by 50% and the number of conversions by 100% for the next period, July 1, 2010 through June 30, 2011 (i.e., 454 assessments and 74 weatherization jobs). From July 1, 2012 through the program's end date, our goal would be to increase the monthly rate for each parameter another 20%.

The ESQ Program Coordinator has reached out to Quincy Community Action Programs, Inc. (QCAP), which provides energy efficiency services to low-income households, to coordinate efforts. The ESQ Program Coordinator will inform people of QCAP's services and refer eligible people to that program. QCAP will refer interested households not eligible for the QCAP program to ESQ.

#### **Increase participation in renewable energy programs.**

National Grid's GreenUp program offers consumers the option of supporting renewable energy and paying for it on their monthly electric bill. The renewable energy is provided for by suppliers other than National Grid. In terms of market share, the leading supplier in Massachusetts is Mass Energy Consumers Alliance, with a product called *New England GreenStart* (a mix of wind, solar, biomass, and low-impact hydro). Currently, there are 136 Quincy customers enrolled in the program. Through ESQ, we hope to increase participation in Quincy by 20 percent for CY 2010 and 2011. Time spent promoting *New England GreenStart* will be paid for by Mass Energy rather than the EECBG.

#### **Increase use of onsite solar energy systems, particularly solar photovoltaics (PV).**

The ESQ Program Coordinator will provide to interested residents and businesses basic information regarding onsite solar energy systems. Currently, there are generous incentives for

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<sup>1</sup> Ellen Pfeiffer of National Grid's Community Initiatives program is the liaison to ESQ.

onsite solar PV systems through the Commonwealth Solar II Rebate program ([www.MassCEC.com/solar](http://www.MassCEC.com/solar)). The Coordinator will encourage residents and businesses to take advantage of these incentives and work with the Commonwealth's Clean Energy Center to track new installations in Quincy. In both 2008 and in 2009, 2 new solar PV systems were installed in Quincy (3 residential, 1 school). So far this year, there have been 3 new solar PV installations (1 commercial, 2 residential). The goal is to maintain the recent installation rate of 2-4 installations per year. However, this program component is considered to be much less of a priority than increasing participation in energy efficiency or green power because those components are far more accessible and economical to the typical consumer.

### **Increase participation in the Quincy's Single Stream Recycling program.**

As recycling is a "free" method of making dramatic reductions in energy use and greenhouse gas emissions, promoting it is allowed under the EECBG. Promotion of the City's Single Stream Recycling program will be included in all the strategies listed below to achieve the program's objectives. The ESQ Program Coordinator will work with Quincy's Director of Waste Management to effectively use the ESQ education program to support the City's efforts to increase recycling. Historically, municipal residential recycling rates were reported by the state's Department of Environmental Protection (DEP). Due to layoffs last year in the DEP, there was no reporting for CY 2009. In CY 2008, the DEP reported Quincy's recycling rate as 17%.

To maintain or improve recycling rates, the Director of Waste Management believes it's necessary to continually reach out to the public in a variety of ways with a clear recycling message. The current recycling message underscores the cost of trash ("Trash Costs Cash" and "Your Trash is Weighed and a Bill is Paid"). ESQ can be an effective way to get this message out to the public.

A summary of the energy efficiency, renewable energy, and recycling programs can be found in Appendix I below.

Given that just \$10,000 from the block grant has been allocated towards integrating recycling into the ESQ message, the city's recycling rate has significant variability from year-to-year, and the rate is influenced by many factors, we are not establishing a quantitative goal for this component. However, the recycling rate will be tracked to the best of the City's ability throughout the program and there will be reports on outreach activities.

## **III. Program Strategies**

## **Community Outreach**

The ESQ Program Coordinator will participate in a minimum of 3 workshops or community events each quarter throughout the grant period. By partnering with faith communities, civic and professional associations, neighborhood organizations, environmental interest groups, and municipal entities, such as the public library and public school system, ESQ can leverage existing social networks to reach a variety of audiences.. Participation includes tabling at different community events supported by the different groups and providing workshops to interested groups. The coordinator will also partner with the Thomas Crane Public library to provide a minimum of 3 public workshops supporting ESQ's objectives.

In addition to tabling at appropriate school events, The ESQ Program Coordinator, with assistance from Larry Chretien, Mass Energy's director, will work with the Quincy Public Schools to develop a program for informing and motivating students and their families to participate in ESQ.

The ESQ Program Coordinator will coordinate with the City's Director of Waste Management on all outreach efforts.

A working list of local community partners can be found in Appendix II below. The ESQ Program Coordinator will be looking for opportunities to work with any group that can help Quincy achieve the program's goals, including groups that may not yet be on the working list.

## **Online Tools**

The ESQ Program Coordinator will maintain, with the assistance of Mass Energy's IT Director, a web site that includes information on the Mass Save program for Quincy residents and businesses, Quincy's Single Stream Recycling program, New England *GreenStart*, and the Commonwealth Solar Rebate program. Information on residents interested in receiving a Mass Save energy assessment will be captured through the site. Site and program awareness will be promoted through social networking tools (Facebook, Twitter), possible online advertising (Facebook ads, Google Ad Words, digital banner ads), and traditional promotion such as flyers and print/tv media. Web site content may change in accordance with changes to the programs.

The ESQ Program Coordinator will maintain a Facebook page that provides information and updates supporting the program's objectives. The Facebook page will be promoted through emails and online advertising.

The ESQ Program Coordinator will work with the City to use the *CityLink Weekly Newsletter* when appropriate to provide information and updates supporting the program's objectives. The City's web site will have a prominent link to the ESQ web site.

The ESQ Program Coordinator will provide information on ESQ to faith communities, civic and professional associations, neighborhood organizations, and environmental interest groups to share with their members via emails, listserves, and web sites.

### **ESQ Marketing Materials**

The ESQ Program Coordinator, with assistance from other Mass Energy staff, will produce flyers and other informational materials that will be posted in a variety of public spaces and distributed at events and workshops. The ESQ Program Coordinator will also distribute existing materials on energy efficiency, renewable energy, and recycling.

A list of ESQ-specific marketing materials can be found in Appendix III below.

### **Media Coverage**

The ESQ Program Coordinator will assist with press releases and announcements for local media (*The Quincy Sun*, *The Patriot Ledger*, *The Boston Globe South*, and QATV).

The ESQ Program Coordinator will partner with QATV to produce PSAs and separate programming supporting the program's objectives. The coordinator will request to appear on regular QATV programs (e.g., Quincy AM, Currently in Quincy, Eye on Quincy, etc.).

### **Program Coordinator Services**

The ESQ Program Coordinator will work directly with Quincy residents and businesses interested in energy efficiency, renewable energy, and recycling. The coordinator will answer questions, provide information and materials, and assist them in their efforts to become more energy efficient, support renewable energy, and increase recycling. The coordinator will connect with residents and businesses via calls, emails, ESQ workshops, and community events.

### ***Potential Obstacles***

#### *Language*

Twenty percent of Quincy's population is Asian and for many of these residents, English is not a first language. The ESQ Program Coordinator will meet with John Brothers and David Yi Zou of

Quincy Asian Resources and Betty Yau from the City’s Constituent Services to determine the best ways ESQ can overcome this obstacle and successfully reach out to Quincy’s Asian population.

*Limited Resources*

With limited funds available for direct expenses and the limited hours of the ESQ Program Coordinator position, the program strategies outlined above are efficient, low-cost means to meeting the program’s objectives and goals. Mass Energy will pursue other means of funding to supplement the outreach campaign.

**IV. Schedule of ESQ Marketing and Outreach**

Strategy	2010			
	1 <sup>st</sup> Quarter Jan. – March	2 <sup>nd</sup> Quarter Apr. – June	3 <sup>rd</sup> Quarter July – Sept.	4 <sup>th</sup> Quarter Oct. – Dec.
Community Outreach Events	n/a	n/a	Participate in a minimum of 3 workshops or community events	Participate in a minimum of 3 workshops or community events  Begin QPS outreach
Online Tools	n/a	Start to develop web site	Finalize and update web site  Create a Facebook Page  Run Facebook Ads  Post information on Facebook page	Update web site if needed  Post information on Facebook page  Create a Twitter Account
Marketing and	n/a	Work with	Post	Distribute flyers

	information if appropriate Replay QATV program (energy efficiency)	information if appropriate Replay QATV program (solar)	information if appropriate Replay QATV program (recycling)	
Program Coordinator Services	Answer calls, emails, and requests for assistance from residents and businesses interested in ESQ	Answer calls, emails, and requests for assistance from residents and businesses interested in ESQ	Answer calls, emails, and requests for assistance from residents and businesses interested in ESQ	n/a

## V. Budget Summary

	Year 1	Year 2	Amount (Year 1 plus Year 2)
<b>Maura O’Gara</b>			
Energy Efficiency and Solar Energy	\$60/hr for 500 hrs	\$65/hr for 616 hrs	\$70,000.00
Recycling	\$60/hr for 83 hrs	\$65/hr for 77 hrs	\$10,000.00
<b>Direct Expenses</b>	\$500.00	\$500.00	\$1000.00
		<b>TOTAL:</b>	<b>\$ 81,000.00</b>

### Direct Expenses Charged to Quincy Energy Efficiency and Conservation Block Grant

Items	Cost
Web Site address (2 years)	\$34 (\$17 x 2)
Logo and banner design	\$660.00
Banner printing	\$203.61

Lawn Sign/Poster design	\$75.00
Total	\$972.61
Total funds available in EECBG budget	\$1000.00
Total funds remaining	\$27.39

As of September 4, 2010, Mass Energy has absorbed some additional costs such as web site design, flyer design, and a limited amount of Facebook ads.

## **Appendix I: Summary of Energy Efficiency, Renewable Energy, and Recycling Programs**

### **Energy Efficiency**

#### ***National Grid's Energy Efficiency programs***

National Grid provides its customers with a number of incentives for improving energy efficiency in the home and workplace. Most homeowners and small businesses qualify for no-cost energy assessments, which are provided through the Mass Save program ([www.MassSave.com](http://www.MassSave.com)), an energy conservation services program administered by National Grid and other participating energy companies and municipal aggregators.

During an assessment, a trained energy specialist visits a building and assesses where energy improvements can be made. The specialist focuses on weatherization (air leakage and insulation), mechanical systems (air conditioning, heating system, hot water), major appliances, and lighting. At the end of the assessment, the specialist provides the customer with information on any available rebates or other incentives from National Grid as well as available financing offers for the recommended energy efficiency improvements. The specialist also explains the next steps to implementing those improvements.

National Grid offers incentives on certain energy efficient appliances, equipment, and lighting; energy efficient heating and cooling equipment; weatherization measures; and energy efficient new homes or major renovations. These incentives include rebates, discounted pricing, and free technical assistance.

For financing, qualifying National Grid residential customers can apply for a 0% loan to assist with the installation of qualified energy efficient improvements. The loans are available up to \$15,000 with terms up to 7 years.

#### ***Mass. Oil Heat Efficiency Program***

The Conservation Services Group and the Mass. Oil Heat Council have been awarded \$1.7 million from the Mass. Department of Energy Resources (federal stimulus funds) to replace a projected 500 old, inefficient oil-fired heating systems. This program will be announced in September 2010. ESQ will promote the program in Quincy.

### **Renewable Energy**

### ***New England GreenStart***

As mentioned earlier, National Grid’s GreenUp program allows its customers to support the development of renewable energy. Customers that choose to participate pay a premium to ensure that all or part of their electricity is generated from renewable sources. The renewable energy is provided for by suppliers other than National Grid. Mass Energy is one of the suppliers, providing consumers with a product called *New England GreenStart*, which consists of 25% new renewable energy sources (such as wind, solar, and biomass) and 75% small hydroelectric. All of the resources are located in New England. Customers can choose *New England GreenStart* to match either 100% or 50% of their electricity usage. *New England GreenStart 100%* costs 2.4 cents/kWh and *New England GreenStart 50%* costs 1.25 cents/kWh. For a household using 600 kWh a month, the *New England GreenStart* payments would be \$14.40 for 100% of the electrical usage, or \$7.50 for 50%. Payments for *New England GreenStart* are 100% tax deductible for residential customers.

### ***Massachusetts’ Commonwealth Solar II Rebate Program***

The Commonwealth Solar II Rebate Program, run by the Massachusetts Clean Energy Center (MassCEC), provides rebates through a non-competitive application process for the installation of PV projects by professional, licensed contractors at residential, commercial, industrial, institutional, and public facilities. To qualify, the owner (and project site) must be a customer of a Massachusetts electric distribution utility that collects the Renewable Energy Systems Benefit Charge from their customers and deposits those funds into MassCEC’s Renewable Energy Trust Fund. National Grid is a qualifying utility. The rebates, funded by the Renewable Energy Trust Fund, are based on the size and other characteristics of the PV project. The rebate program provides rebate funding in a block structure for commercial PV projects up to 10 kW in nameplate capacity and residential systems (regardless of size) with a rebate calculation capped at 5 kW.

**Commonwealth Solar II Rebate Chart**

<b>Description</b>	<b>Who is Eligible</b>	<b>Grant Amount</b>
Base Rebate	Utility customers/sites that pay the Renewable Energy Systems Benefit Charge	\$1.00 per Watt
Moderate income/home value Adder	Family household income <\$95,400/year or home assessed value <\$400,000 (Middlesex, Norfolk, Essex County)	\$1.00 per Watt

Massachusetts Made Equipment Adder	For any project that uses a Massachusetts made solar panel or inverter (Evergreen panels or Solectria inverters).	\$0.10 per Watt
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Recipients of the Commonwealth Solar II rebate are also be eligible to earn Solar Renewable Energy Certificates (SRECs) through participation in the newly launched RPS Solar Carve-Out, managed by the Department of Energy Resources (DOER). DOER has developed a price support mechanism for SRECs, referred to as the Solar Credit Clearinghouse, to facilitate solar project development and financing in the SREC market. With this mechanism, residents and businesses in Quincy can sell the SRECs their PV systems earn.

### Recycling

#### *Quincy's Single Stream Recycling Program*

The City of Quincy adopted the Single Stream Recycling system in 2008. This system allows residents to place all recyclable material (paper, glass, plastic, metal cans, and cardboard) together into one large container labeled with a recycling sticker, which is supplied by the City. The City recommends that residents use 32-gallon trash barrels as their containers and, for incentive, provides residents with \$5 coupons off these barrels from local suppliers (Curry Hardware at 370 Copeland St. and Danny's Hardware at 53 Billings Rd.). However, residents can use other containers, including the small blue bins used before Single Stream Recycling began.

In fiscal year 2009, Quincy residents increased recycling by approximately 700 tons, reduced solid waste by 2000 tons, and the City earned over \$100,000 in recycling revenue. Quincy is one of a handful of municipalities still earning money for its recyclable material because the City opted for fixed, guaranteed revenue not tied to market fluctuations.

In FY 2010, the level of recycling and solid waste reduction was maintained at FY 2009 levels, with the exception of an increase in solid waste by 1000 tons. All 1000 additional tons were picked up in March 2010, when numerous homes were impacted by flooding and homeowners had to dispose of damaged goods.

Summary of Quincy's recycling rates (CY 2006 – 2008) according to MA DEP ([www.mass.gov/dep/recycle/priorities/munirate.pdf](http://www.mass.gov/dep/recycle/priorities/munirate.pdf))

Calendar Year	Recycling Rate
---------------	----------------

2006	30%
2007	21%
2008	17%

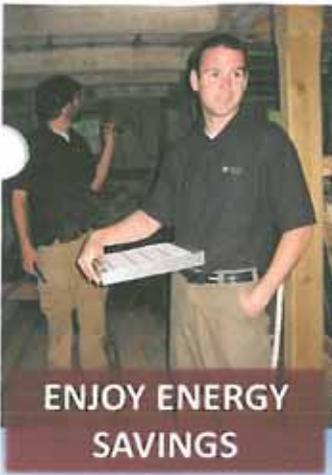
These rates were determined by the MA DEP using information supplied by the City's Director of Waste Management. The current Director did not have access to the information supplied to the DEP for the 2006 recycling rates.

The DEP's *2008 Municipal Solid Waste and Recycling Program Survey* reported the population of Quincy as 90,000, with 38,000 households, and the number of households served by municipal disposal as 30,305 ([www.mass.gov/dep/recycle/priorities/munipgm.pdf](http://www.mass.gov/dep/recycle/priorities/munipgm.pdf)). According to the City's Director of Waste Management, for FY 2010, the population of Quincy grew to approximately 92,000 and the number of households served by municipal disposal grew to approximately 30,500.

## Appendix II: Local Community Partners

### Community Partners

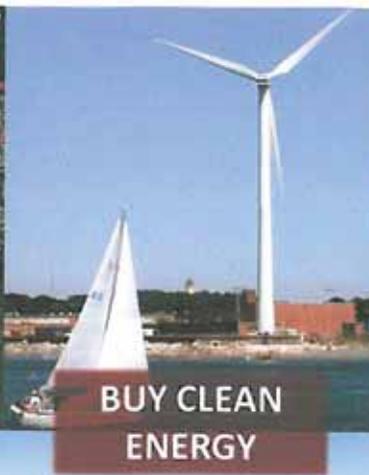
Quincy Environmental Network	Quincy Lions Club	Glad Tidings Church, Assemblies of God
Wollaston Garden Club	George F. Bryan Veterans of Foreign Wars Post	Good Shepherd Lutheran Church
Houghs Neck Garden Club	Houghs Neck American Legion Post	Holy Trinity Catholic Parish
Seaside Gardeners of Squantum	Jewish War Veterans	Houghs Neck Congregational Church
Friends of Wollaston Beach	William R. Caddy Marine Corps League Post	Islamic Center of New England
Quincy Chamber of Commerce	Cyril P. Morrisette American Legion Post	Quincy Chinese Church of the Nazarene
Quincy Mothers Cooperative	Quincy American Legion Post	Quincy Community United



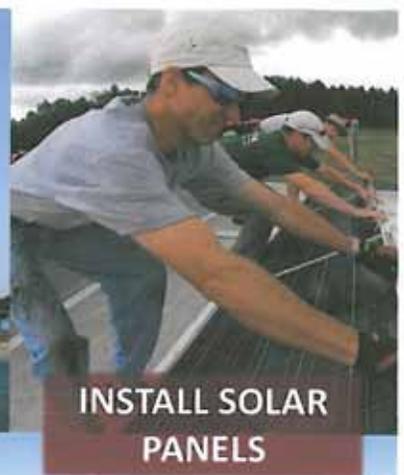
**ENJOY ENERGY SAVINGS**



**RECYCLE**



**BUY CLEAN ENERGY**



**INSTALL SOLAR PANELS**



Energy Smart Quincy is a federally-funded program to help homeowners and businesses across our city achieve unprecedented levels of energy savings and access to clean energy. This program is sponsored by the City of Quincy in cooperation with National Grid and the Massachusetts Energy Consumers Alliance.

Let Energy Smart Quincy help you:

*Doing Our Part Today for a Better Tomorrow*

***Enjoy Energy Savings in Your Home or Business***

Your energy savings begin with a no-cost Energy Assessment. Free air sealing, rebates, and no-interest loans make having a comfortable home or business easy and affordable. Sign up online at [www.EnergySmartQuincy.org](http://www.EnergySmartQuincy.org).

***Learn More about Single Stream Recycling***

The more you recycle, the less the city pays for trash — that means more money for schools, parks, and other assets that improve our quality of life. Find out the best ways to reduce your trash.

***Buy Clean Energy***

You can guarantee your energy comes from clean, renewable sources. Learn more about *New England GreenStart* (100% tax-deductible).

***Install Solar Energy***

You can generate your own clean, renewable energy. The state's Commonwealth Solar program offers generous rebates for residents and businesses interested in installing solar panels.

Any questions? Visit [EnergySmartQuincy.org](http://EnergySmartQuincy.org), call 617-750-4329, or email [Maura@massenergy.org](mailto:Maura@massenergy.org)

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## Join Your Neighbors in Saving **ENERGY** and **MONEY**

### Don't Miss Out on

- a No-Cost Home Energy Assessment
- FREE Sealing of Air Leaks in Your Home
- Discounted Insulation  
(National Grid pays 75% up to \$2000)

**Stopping air leaks** and **insulating your home** can save you \$ **HUNDREDS of DOLLARS** \$ year after year. Plus, it makes your home more comfy, healthy, and valuable!

Visit [www.EnergySmartQuincy.org](http://www.EnergySmartQuincy.org)  
or call 617-750-4329.

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Join your neighbors in a  
citywide effort to  
**SAVE ENERGY and**  
**SAVE MONEY**

- **Get a No-Cost Energy Assessment**



Take advantage of generous rebates and zero-interest loans for insulation, heating equipment, and other energy efficiency measures. You may qualify for FREE Air Sealing (sealing up air leaks and drafts).

- **Recycle**



When you recycle, you choose not to waste your tax-payer dollars. A 10% increase in recycling can save \$300,000/year.

- **Produce Your Own Clean Energy**



Interested in getting solar panels? Generous rebates and tax credits are available for both solar hot water and solar electricity. You can also enjoy solar power from your roof without owning the panels.

- **Buy Local Green Power**



You don't need to have solar panels to support renewable energy. Learn how you can support local clean power through your electric bill.

To learn more, call 617-750-4329, email [maura@massenergy.org](mailto:maura@massenergy.org), or visit [www.EnergySmartQuincy.org](http://www.EnergySmartQuincy.org).

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**Join your neighbors in a citywide effort to save energy and reduce our dependence on fossil fuels.**

*Learn about the many incentives available to you.*

- **Get a No-Cost Energy Assessment**
- **Produce Your Own Clean Energy**
- **Buy Local Green Power**
- **Reduce Your Waste**

*If you would like to learn more, call 617-750-4329, email [maura@massenergy.org](mailto:maura@massenergy.org), or visit [www.EnergySmartQuincy.org](http://www.EnergySmartQuincy.org).*

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# City of Quincy Department of Public Works



Did you know... Your trash is weighed and a bill is paid from your taxes?  
Recycling reduces that bill and saves YOU money.

**PLEASE RECYCLE.**



## Electronics Disposal

Bring all CPUs/computers, TVs, window unit ACs, servers, keyboards, spare computer parts, monitors, flat screens, laptops, network equipment, mice, printers, routers, radios, scanners, fax machines, cables and wires, aluminum, copper, cell phones, and telephones to the DPW Recycling Center all year round Monday through Friday 7:30 AM to 3 PM and on Saturdays from mid-April to mid-December from 7:30 to 2:30.

## Support Quincy Veterans Council



### HOUSEHOLD HAZARDOUS WASTE DROP-OFF DAY -- SATURDAY, JUNE 4, 2011

The following hazardous items will be accepted at the DPW yard, 55 Sea St., from 8 to 10

Antifreeze  
Artist Supplies  
Brake Fluid  
Car Wax, Polish  
Carburetor Cleaner  
Chemical Fertilizers  
Chemistry Sets  
Drain and Toilet Cleaner  
Driveway Sealer

Engine Degreaser  
Fiberglass Resin  
Flea Control Products  
Floor and Metal Polish  
Fuels/Gasoline/Kerosene  
Fungicides  
Furniture Polish  
Hobby Supplies  
Lighter Fluid

Mercury Items\*  
Moth Balls  
Ni-Cad/Lithium Batteries  
Oil Based Paints  
Oven Cleaner  
Paint Strippers/Thinners  
Photo Chemicals  
Poisons/Insecticides  
Roofing Tar

Rubber Cement, Airplane Glue  
Rug and Upholstery Cleaner  
Solvent Adhesives  
Spot Remover  
Stains and Varnishes  
Swimming Pool Chemicals  
Transmission Fluid  
Weed Killers  
Wood Preservatives, Cleaners

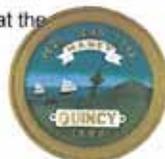
\* Fluorescent Tubes and "Swirly" Light Bulbs, Thermometers, Thermostats, Button-Cell, Ni-Cad and Lithium Batteries, Flow Meters and Mercury Switches.

Save energy. Save money. Reduce your dependence on fossil fuels.  
**ENERGY SMART QUINCY**  
Get a FREE home energy assessment.  
Increase your recycling.  
Buy clean energy. Install solar.  
Learn more at [www.EnergySmartQuincy](http://www.EnergySmartQuincy)

New England Rain Barrels are available by calling The New England Rain Barrel Company at 877-977-3135 or order online at [www.nerainbarrel.com](http://www.nerainbarrel.com).

The Earth Machine Composter is available at the DPW yard for \$45. The composter produces an all-natural soil conditioner which provides gardens with much needed nutrients.

The Perfect Barrel in Quincy is a 32-gallon plastic barrel with a detachable lid and no wheels. Get \$5 off the Perfect Barrel at Curry's and Danny's Hardware stores by e-mailing [recyclequincy@quincyma.gov](mailto:recyclequincy@quincyma.gov)



Thomas P. Koch  
Mayor

### Bring it to the DPW Yard

55 Sea St. All year round

#### Saturday Hours at the DPW Yard

7:30 AM to 2 PM through mid-December

#### All Metal and Appliances

Can be brought to the DPW Yard, 55 Sea St., Monday through Saturday

**Textile Drop-off** Beginning in June, bring all clothes, linens, shoes and small toys to the DPW Yard

#### All Mercury Products

Fluorescent Light Tubes and "Swirly" Light Bulbs, Thermometers, Thermostats, Button-Cell, Ni-Cad and Lithium Batteries, Flow Meters and Mercury Switches.

#### Support the Friends

of the **Crane Public Library**

Bring all your books, CDs, DVDs, records, and audio books to the GOT BOOKS receptacle in the recycling center at the DPW Yard.

請在此登記

免費

能源評估



Doing Our Part Today for a Better Tomorrow.

SIGN UP FOR A NO-COST ENERGY ASSESSMENT Start Saving ENERGY and MONEY

請登記免費能源評估 - 開始節省能源及金錢

First Name 名

Mr. Mrs. Ms. Last Name 姓

Street 街道

Unit #: 單位號碼

Zip Code: 郵區號碼

Ownership Status: 戶主狀況

Own 屋主

Rent 租屋

Owner's name 屋主姓名: \_\_\_\_\_

Phone No. 電話號碼: \_\_\_\_\_

Daytime Telephone: 日間電話 \_\_\_\_\_

Evening Telephone: 夜間電話 \_\_\_\_\_

Cellular Telephone: 手提電話 \_\_\_\_\_

Best Time to Call: 最佳來電時間

Monday 星期一

Tuesday 星期二

Wednesday 星期三

Thursday 星期四

Friday 星期五

Saturday 星期六

Sunday 星期日

Everyday 每一天

Time 時間 \_\_\_\_\_

E-Mail Address: 電子郵件地址 \_\_\_\_\_

Primary Heating Fuel: 主要取暖燃料

Natural Gas 煤氣

Oil 油

Electric 電

Propane Gas 丙烷氣

Other 其他 \_\_\_\_\_

Type of Home: 房屋種類

Single Family 一家庭、

Apartment 多單位式

Multi-Family 多家庭

# of Units: 單位數目

One (1)

Two (2)

Three (3)

Four (4)

Five or more (5+)

Primary Language: 主要語言

English 英語

Cantonese 廣東話

Mandarin 國語

Other 其他 \_\_\_\_\_

Please Note: The energy assessment will be done in English. Please have an English speaking family member or friend be present during the assessment. If this is not possible, please let us know beforehand so that we can help you.

請注意: 能源評估工作以英語進行。請安排懂英語的家庭成員或朋友在場協助。如這並不可能, 請預先通知我們, 使我們可為你作出安排。



## Take Control of Your Business's Energy Consumption

Organizations that implement energy-efficient measures outperform their competitors by as much as 10%. To remain profitable and gain a competitive edge, you need to do more than just turn off unnecessary lights and adjust thermostats. You need to make energy efficiency an essential part of your business plan. Reducing energy use and increasing energy efficiency can cut your energy costs by up to 30%.

Find out what you can do to cut energy costs and take advantage of current incentives from National Grid.

Small Businesses: call 1-800-332-3333 or fill out this form to receive a No-Cost Energy Assessment ([https://www.nationalgridus.com/masselectric/business/forms/4\\_small\\_form.asp](https://www.nationalgridus.com/masselectric/business/forms/4_small_form.asp)).

Medium Businesses: call Joe Stephens at 508-730-4167 or click here to learn more (<https://www.powerofaction.com/mlbefeenergyinitiativeprogramoverview/>).

Large Businesses: call Joe Cardinal at 508-897-5589 or click here to learn more (<https://www.powerofaction.com/mlbefeenergyinitiativeprogramoverview/>).

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*Doing Our Part Today for a Better Tomorrow*

### **Interested in Solar Panels?**

If you have a south-facing roof that's unobstructed (no trees or objects blocking the sun), you may be a good candidate for solar energy. You can use solar to heat your water or to produce electricity.

There are a number of incentives available for solar, which you can learn about below.

If you would like your home or business assessed for solar, you will need to contact an installer. The Massachusetts Clean Energy Center has a useful "Finding an Installer" link that will help you choose. The Center also handles the Commonwealth Solar II Rebate program and the Commonwealth Solar Hot Water Rebate program, which are two of the incentives available for solar power. Here is their web site: <http://masscec.com/solar>

### **Electric Solar**

#### **Current Residential Incentives for Electric Solar in MA**

- Federal tax credit of 30% (total cost)
- MA State Tax Credit of \$1000
- Commonwealth Solar II Rebate ([www.masscec.com/solar](http://www.masscec.com/solar))\*
- Sell the energy your systems produces

\*Don't need an energy assessment to qualify if building is new construction or had assessment within 6 years. 5kW cap for rebate, but can install any size.

#### **Another Option — Power Purchase Agreement**

If you have a good site, but don't want to own the system, some installers offer a Power Purchase Agreement. With this agreement, you have no or little upfront costs, but agree to purchase the electricity the solar panels produce at a fixed cost per kWh. This price can be less than the price you currently pay and is locked in for about 20 years.



1/11/11

Dear Pastor Bodley,

The City of Quincy is taking a number of steps to reduce energy waste, increase savings, and take advantage of local clean energy sources. To help your Quincy members do the same, the city has created a new program—**Energy Smart Quincy**—designed to help homeowners and businesses save energy, save money, and reduce their dependence on fossil fuels.

Energy Smart Quincy provides information on energy efficiency, recycling, and renewable energy programs residents can take advantage of. These programs include Mass Save, a statewide program that offers no-cost energy assessments and numerous incentives for saving energy; Single Stream Recycling, Quincy's recycling program; New England *GreenStart*, an easy way to support renewable energy through one's electric bill; and the Commonwealth Solar Rebate, one of many incentives available to those interested in installing solar panels.

I am available to do a presentation on Energy Smart Quincy to your members or set up an informational table at one of your events. Please let me know if you are interested.

I appreciate your sharing information about Energy Smart Quincy with your members via email, a newsletter, a community board, or at your next gathering. Included is a general flyer to distribute as you see fit. I will also email other materials.

If you have any questions, please contact me. Thank you for your assistance in promoting energy awareness in Quincy.

Sincerely,

Maura O'Gara

*Energy Smart Quincy, Program Coordinator*

[www.EnergySmartQuincy.org](http://www.EnergySmartQuincy.org)

*Maura@massenergy.org; 617-750-4329*

*Energy Consumers Alliance of New England*

*(dba - Mass Energy Consumers Alliance and People's Power & Light)*

*284 Amory Street - Boston, MA 02130*

[www.massenergy.org](http://www.massenergy.org) and [www.ripower.org](http://www.ripower.org)



*Doing Our Part Today for a Better Tomorrow*

May 10, 2011

Dear Quincy Employee:

The City of Quincy is taking a number of steps to reduce energy waste, increase savings, and take advantage of local clean energy sources. To help you do the same, the City has created a program— **Energy Smart Quincy**—designed to help residents and businesses across our city save energy and reduce their dependence on fossil fuels.

Significant energy savings often begin with a **free Energy Assessment**. When you get an assessment, an energy advisor comes to your home and looks for the best ways for you to **save energy and money**. The advisor focuses on weatherization (air leaks and insulation), mechanical systems (air conditioning, heating system, hot water), major appliances, and lighting. Certain energy improvements can be made for free during the assessment.

At the end of your assessment, the energy advisor will provide you with information on any available rebates, such as National Grid's **insulation rebate (75% up to \$2000)**, or other incentives, such as **free air sealing** (stopping air leaks and drafts) and the HEAT loan, a **0% loan** you can use to pay for recommended home improvements. Take advantage of the incentives available to you and **make your home more comfortable, safe, healthy, and valuable**.

To sign up for an assessment, fill out the online form at **www.EnergySmartQuincy.org**, call **617-750-4329**, or email **maura@massenergy.org**. Due to the popularity of the program, you may have to wait a few weeks for an appointment. **All eligible employees are encouraged to participate.**

Energy Smart Quincy can also assist you with questions about installing solar panels, buying local renewable energy, and recycling.

Sincerely,

Maura O'Gara

Energy Smart Quincy, Program Coordinator

[www.EnergySmartQuincy.org](http://www.EnergySmartQuincy.org)

617-750-4329

[Maura@massenergy.org](mailto:Maura@massenergy.org)



## **Outreach to Quincy Public Schools**

### **Background**

The City of Quincy was awarded an Energy Efficiency and Conservation Block Grant (EECBG) by the U.S. Department of Energy (DOE). The EECBG supports a DOE-approved strategy containing a number of projects primarily intended to reduce energy consumption in Quincy. In May 2010, the City of Quincy hired Mass Energy Consumers Alliance, a nonprofit based in Boston that focuses on making energy affordable and sustainable, to oversee parts of this strategy, including a public education program called *Energy Smart Quincy*. *Energy Smart Quincy* seeks to educate residents and businesses about energy efficiency, renewable energy, and recycling and increase participation in existing energy efficiency programs, renewable energy programs, and the City's Single Stream recycling program. To reach these objectives, Energy Smart Quincy works with faith communities, civic and professional associations, neighborhood organizations, environmental interest groups, and municipal entities, such as the Quincy Public Schools, to reach out to a variety of residents and businesses in Quincy.

### **Overview**

Energy Smart Quincy would like to reach out to the Quincy Public Schools in two ways:

1. **Energy Smart Quincy flyer:** This flyer, which provides general information about the Energy Smart Quincy program, would be distributed to all students in grades K–8.
2. **Be Energy Smart In-Class Program:** This program, which is targeted to students in grade 5, consists of three workshops — one focusing on energy efficiency, one on recycling, and one on solar energy. Each workshop is no more than 45 minutes long.

An example of the flyer, a summary of the workshops, and outlines of the workshops are attached.

Maura O'Gara  
Energy Smart Quincy, Program Coordinator  
Maura@massenergy.org  
617-750-4329

## **Be Energy Smart In-Class Program Summary of Workshops**

### **1. Be Energy Smart: *Energy Efficiency***

Topics: overview of energy (what it is, how we use it, where it comes from), nonrenewable vs. renewable energy sources, problems with our energy use and solutions to the problems

Activity: Use a Kill-a-Watt to show students the difference between the energy required for an incandescent bulb, a CFL, and an LED.

*Strands: Physical Sciences (Chemistry), Life Science (Biology), Physical Sciences (Introductory Physics), Earth and Space Science*

*Broad Topics: Forms of Energy, States of Matter, Living Things and Their Environments, Evolution and Biodiversity, Sound and Light Energy, Energy in the Earth System*

### **2. Be Energy Smart: *Recycling***

Topics: overview of trash (what is it, its history, Quincy's trash), problems with trash, solutions to the problems, how trash and energy relate

Activity: Have students play "Race Against Waste," a relay game where teams race to sort trash (recyclable, reusable, or waste).

*Strand: Physical Sciences (Introductory Physics)*

*Broad Topic: Forms of Energy*

### **3. Be Energy Smart: *Solar Energy***

Topics: overview of fossil fuels (problems, solutions, renewable vs. nonrenewable), solar energy (what it is, how we can use it)

Activity: Use alternative energy kit to demonstrate how solar power works.

*Strands: Physical Sciences (Chemistry), Physical Sciences (Introductory Physics)*

*Broad Topics: Forms of Energy, Sound and Light Energy, Electrical and Magnetic Energy*

# Brewer's Corner Neighborhood Project Breaks Ground

*New Public Infrastructure  
 At Water, Copeland, Granite,  
 Garfield Streets Intersection*

The City of Quincy held a groundbreaking ceremony Monday at the intersection of Water Street/Copeland Street/Granite Street to celebrate the commencement of the Brewer's Corner Neighborhood Improvement project.

The groundbreaking ceremony was the kickoff event for Quincy's Community Development Week. Communities across the nation celebrate community development week to underscore the effectiveness of CDBG funds for helping cities build strong, vibrant neighborhoods.

"From community center funding to street and sidewalk repair, the CDBG program is a vital and effective tool to assist us in meeting the needs in our community," Mayor Thomas Koch said.

This project—funded with a combination of Federal Community Development Block Grant (CDBG) and Energy Efficiency Conservation Block Grant (EE-CBG) funds—entails the implementation of a package of public infrastructure improvements in the Brewer's Corner neighborhood of Quincy.

The current design plan—completed by Woodard and Curran—calls for the installation of new LED traffic signals, associated geometric improvements, pavement markings and pedestrian

amenities at the Copeland Street/Water Street/Granite Street/Garfield Street intersection. Further, the design plans call for sidewalk and curb reconstruction, ADA compliant ramps, associated roadway resurfacing at this intersection, several treeways, and neighborhood amenities like benches, flower pots, etc.

Dennis Harrington, Planning Director identified the Brewer's Corner neighborhood almost five years ago as an appropriate place to target some of the City's CDBG funds for business district revitalization activities. During the project development phase in 2007, the Planning Department completed a revitalization plan for Brewer's Corner which provided an assessment of the infrastructure conditions and put the City in a position to spend federal CDBG funds for the construction of eligible activities.

Last summer the City received Recovery Act funds through the CDBG program (in addition to the City's annual CDBG entitlement) and the Department of Energy's (DOE) Energy Efficiency Conservation Block Grant program. The DOE funds allowed the City to procure new LED traffic signals, and both the CDBG and DOE Recovery Act funds allowed the City to get a proper engineering design completed.



**FEDERAL, STATE AND** city officials break ground Monday at the intersection of Water Street/Copeland Street/Granite Street to celebrate the commencement of the Brewer's Corner Neighborhood Improvement project. From left are: state Sen. John F. Keenan; Ward 4 Councillor Brian Palmucci; Cong. William R. Keating; state Rep. Bruce J. Ayers; Robert D. Schumeyko, Director of the New England Office of Com-

munity Planning, U.S. Dept. of Housing and Urban Development; Nancy A. Callanan, Community Development director; Dennis E. Harrington, Quincy Planning Director; Paula Newcomb, Senior Community Planning Representative New England Office, U.S. Dept. of Housing and Urban Development; Kristina Johnson, Principal Planner.

*Photo Courtesy City of Quincy*

"Without the Recovery Act Funds, this project may still be dormant, with no design funds to move the revitalization plan forward. Without the CDBG funds, the Brewer's Corner neighborhood may still be waiting for new sidewalks and new ADA-compliant ramps. And without the Department of Energy Funds, the neighborhood would not have received new LED traffic

signals and an intersection redesign," said Kristina Johnson, Principal Planner and Brewer's Corner project manager.

Construction is currently underway with the bulk of the infrastructure work to be completed by the end of this summer. Ward 4 Councillor Brian Palmucci and his neighborhood task force will be working with the Planning Department over

the next few months to address the design and implementation of neighborhood amenities like benches and flower pots. Councillor Palmucci and his neighborhood

task force also are working with the City to address community policing and code enforcement issues in Brewer's Corner

## Ruth Harcovitz Performance May 6

Singing star Ruth Harcovitz, often referred to as "Boston's Julie Andrews," will perform Friday, May 6 at noon at the Kennedy Center, 440 East Squantum St.,

North Quincy. Harcovitz performs throughout the country. To register for this performance, call the Council on Aging at 617-376-1506.

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**On the Neponset River**  
**Sunday, May 8TH • 11:00AM until 2PM**  
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 Seasonal Fruit Display ~ Assorted Muffins and Pastries  
 Caesar & Mixed Green Salad ~ Country Fresh Scrambled Eggs  
 Sausage Links & Cured Bacon ~ Lobster Eggs Benedict  
 Oven Roasted Potatoes ~ Homemade Lasagna  
 Sliced Roast Beef with Gravy ~ Seafood Piccata  
 Assorted Rolls & Butter  
 Freshly Brewed Coffee ~ Assorted Juices



For reservations: Please call Stan Pendrak at 617-745-5423  
 Outside seating will be available but space is limited, a credit card is required for reservations.  
 Call soon we are filling up quickly



QUINCY

The Boston Globe

## Quincy helps homeowners reduce energy consumption

By Robert Knox, Globe Correspondent | July 29, 2010

Quincy homeowner Caryn Smith wanted to reduce her family's heating, air-conditioning, and other energy costs. But for her, as for most homeowners, the question is where do you start? An equally important question: How much will it cost?

Smith started by connecting with Energy Smart Quincy, a new program aimed at reducing the city's energy consumption, and scheduling an energy audit of her home.

The audit showed her 130-year-old Dutch Colonial house on Wollaston Hill needs insulation in its roof and overhanging eaves. It's a \$5,500 job, but rebates and tax breaks will reduce her cost to \$2,000. A rebate from National Grid power company will contribute \$2,000 to the energy-saving upgrade, and her federal tax credit is worth \$1,500. And Smith said her own investment will pay itself back in two or three years through reductions in heating costs of \$700 a year for the four-bedroom house. "Plus, the house will be warmer," she said.

Cost savings like Smith's are typical for homeowners who take advantage of rebates for energy-saving home improvements, said Larry Chretien, executive director of Mass Energy Consumers Alliance.

"Most homes can benefit from a small investment and get a very good rate of return," said Chretien, whose agency is helping to spread the word on the energy savings available to households through Energy Smart Quincy.

In another common example, Chretien said, the householder leverages a modest expenditure of \$500 to bring \$2,700 worth of new insulation and air sealing work by taking advantage of the rebates. He will earn that investment back in a single year by saving on fuel costs.

The city this month kicked off Energy Smart Quincy to help homeowners, businesses, and the local government save money by increasing energy efficiency and reducing consumption. It's funded by \$881,000 in federal stimulus money awarded to Quincy as an Energy Efficiency and Conservation Block Grant.

In addition to helping homeowners, the program will hire a manager to reduce the city's energy consumption by 20 percent over three years; pay for energy-efficient streetlights and intersection improvements at Brewer's Corner in West Quincy; and fund new windows, insulation, central heating, and air conditioning for a Head Start school moving into an old city building.

The grant will also pay for synchronizing traffic lights at busy intersections around Quincy with the goal of reducing vehicle idling — a major source of greenhouse gas pollution — and help install solar panels at the city's senior center and new high school.

Mayor Thomas Koch called the program "an invaluable tool to help us act locally to reduce our fossil fuel use, create green jobs, and get the community involved."

For Quincy homeowners, getting involved means getting a visit from Next Step Living, a company that performs comprehensive home energy audits with the expertise and equipment to find what chief executive Geoff Chapin of Cohasset calls "opportunities" for reducing energy costs.

An energy auditor brings an infrared camera to customers' homes to give them a picture of air flows within their house, Chapin said. He uses a fan to depressurize the house, pulling air out of the house to exaggerate leaks. The camera then shows temperature differences in different colors — red for hot air, blue for cold — along the house's walls, floors, and attic. An absence of wall or attic insulation, a failure to air-seal, or other problems will show blue air in winter and red air in summer entering the house.

"They see the leaks in their home in a whole different way," Chapin said. "They say, 'Oh, that's why that room is always cold.'"

In Smith's case, the audit found two areas where insulation could make a difference, he said.

Carmen Donohue, who lives in a circa 1900 house on North Payne Street, said the audit's infrared camera revealed there was no insulation in her house's walls and lots of holes in the attic insulation. A solution would be to blow in 9 inches of cellulose insulation in the attic and seal the cracks, a job priced at less than \$1,000, and insulate the walls — a bigger undertaking estimated at about \$3,500.

National Grid, the power company that serves Quincy, gives customers rebates for energy-saving work of 75 percent of cost, up to \$2,000. Homeowners are also eligible for federal tax credits of 30 percent of their cost, up to \$1,500.

In Donohue's case, the National Grid rebate would pay 75 percent of the attic job, reducing her cost substantially. For the walls, the company's rebate would max out at \$2,000, and the federal tax credit would save around \$450, leaving the homeowner with an outlay of a little more than \$1,000. Fuel cost savings would repay that investment in a couple of years.

"It's an incredible deal. Not many people know about it," Chapin said. "We help people access the rebates, fill out the forms. We make it easy."

Customers receive the rebate money up front, he said, so they don't have to pay the full amount themselves and then wait for a reimbursement.

Opportunities for energy-efficiency upgrades can be found in almost all houses, he said. Some houses have insulation without air sealing to seal the cracks. And some newer houses are "built to budget" and don't have full insulation because the builder is cutting costs, Chapin said.

Donohue said she got involved with Energy Smart Quincy because she's equally concerned about the environmental costs of high energy consumption. She's "passionate" about saving energy, Donohue said. "This Earth is all we get."

Quincy residents can get involved through the program's website, [energysmartquincy.org](http://energysmartquincy.org), or by calling Maura O'Gara at Mass Energy at 617-750-4329.

*Robert Knox can be reached at [rc.knox2@gmail.com](mailto:rc.knox2@gmail.com).* ■



## \$880,000 federal grant goes to “Energy Smart Quincy” campaign

\$880K federal grant expected to help save money

**By Jack Encarnacao**

**The Patriot Ledger**

Posted Jul 13, 2010 @ 05:08 AM

QUINCY —

Quincy is using an \$880,000 federal grant to study its energy use, hire an energy manager and launch a citywide campaign called “Energy Smart Quincy.”

As part of the program, the Massachusetts Energy Consumers Alliance, a nonprofit organization run by former Quincy City Councilor Larry Chretien, will link residents with free energy audits offered by National Grid vendors, who also recommend home improvements to save money.

“We’re going to really blow the roof off participation in these programs,” Chretien said.

Maura O’Gara, Mass. Energy’s energy program coordinator, will be its point person for Quincy residents.

While announcing the program outside city hall Monday, she asked interested residents to call her at 617-750-4329. A website — [www.energysmartquincy.org](http://www.energysmartquincy.org) — is also available.

O’Gara said National Grid’s energy-savings programs “have a much better response if they have a local presence.”

Two Quincy residents in whose homes O’Gara coordinated energy audits were presented with energy-efficient power strips Monday as tokens of appreciation.

The program also calls for hiring an energy manager to study municipal energy use and suggest ways to make it more efficient.

Mayor Thomas Koch said the city is “aggressively looking” for the manager, who will work in the department of public buildings.

“We’ve got feelers out now,” he said.

The manager, who will be paid \$250,000 over three years, must cut the city’s energy use by 20 percent. He or she will have the technical expertise to not only monitor, but also repair and maintain, the city’s energy systems, Koch said.

U.S. Rep. William Delahunt said the effort will save money.

“If you’re a taxpayer in this community, this is going to save you dollars,” he said.

The city’s plans for energy audits in its buildings is similar – but different in significant ways, Koch said – to the controversial 2007 energy-savings contract with Honeywell International.

Koch, who has heavily criticized the contract, said the grant-funded energy audits will be more comprehensive than “spotty” data provided by Honeywell, which guaranteed the city would save as much in energy costs over 20 years as the \$30 million it spent upgrading equipment.

“It appears (Honeywell) backed into a number rather than doing a complete report on every building,” Koch said.

The “Energy Smart Quincy” program also encompasses solar panels that will be installed at the Kennedy Center on East Squantum Street and on the new Quincy High School, as well as the ongoing effort with the city of Boston to build a 1.6-megawatt wind turbine on Moon Island.

# Energy Smart Quincy Follow-Up Survey

Energy Smart Quincy is collecting information about peoples' experiences with home energy assessments through the Mass Save program. The information collected in this survey will be used to help improve the system for the benefit of individuals like you.

\* Required

**First Name \***

**Last Name \***

**Email Address \***

**Have you scheduled an appointment for a no-cost energy assessment? \***

- Yes
- Not yet, but please have someone contact me to schedule an assessment.
- No, because...(please provide additional information in the comments box at the end of this survey)

**When you scheduled your appointment, when was the next available energy assessment appointment offered to you?**

Please choose the most applicable answer.

- In 1 week
- In 2 weeks
- In 1 month
- In 2 months
- In more than 2 months
- N/A

**Did you receive a home energy assessment?**

- Yes
- No

**If you received a home energy assessment, were free energy-saving light bulbs, aerators, or thermostats installed?**

- Yes
- No

**If you received a home energy assessment, what recommendations did the energy advisor provide?**

Please check all that apply.

- Air sealing (sealing up air leaks/drafts)
- Insulation (wall)
- Insulation (attic)
- Hot water heater upgrade
- Appliance upgrade
- Air conditioning upgrade
- Heating equipment upgrade
- Heating equipment tune-up
- No recommendations

**Did you pursue any of these recommendations?**

Please check all recommendations that are completed or scheduled to be completed.

- No, I did not pursue any of the recommendations because... (please provide additional information in the comments box below)
- Air sealing (sealing up air leaks/drafts)
- Insulation (wall)
- Insulation (attic)
- Hot water heater upgrade
- Appliance upgrade
- Air conditioning upgrade
- Heating equipment upgrade
- Heating equipment tune-up

**Please provide any additional comments regarding the free home energy assessment program, including why you have not scheduled an appointment for an energy assessment or why you have not pursued any of the assessment recommendations. If you have any home energy questions or concerns, perhaps involving your heating system, appliances, lighting, or renewable energy, please submit them here.**

To contact Energy Smart Quincy, please call 617-750-4329 or email

maura@massenergy.org.

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City of Quincy  
Map of Environmental Initiatives

Policy (policies are also cited under the category they impact)	Renewable Energy	Energy Efficiency and Conservation	Habitat	Transportation	Green Building	Education	Stormwater
1 Tree Protection Ordinance Tree and Urban Forest Commission Tree and Urban Forest Management Plan	Wind data collection at two Quincy sites (police station and quarry hills)	EEBCO contract with Honeywell (first in state)	Broad Meadows Marsh Restoration/Marsh Madness	Installation of hydrogen converters on several DPW vehicles	Quincy Center District Design Guidelines for Sustainability	Variety of initiatives from recycling to education at individual schools	Reduction of polluted runoff to local beaches (\$12 million dollar project to repair crumbling sewer lines)
2 Community Preservation Act	Passage of Wind Ordinance	EEBG- Hiring of Energy Manager	Daylighting the Town Brook (during future redevelopment of downtown)	Squantum Point Pier Project (increase car-free tourism to Quincy and surrounding communities)	GHS MA-CHPS Certification 2009		
3 Quincy Center District Design Guidelines for Sustainability	Partnership with City of Boston- Wind turbine on Moon Island	EEBG-LED traffic light project	Restoration of Sailor's Home Pond/Butler's Pond/bog	RiverWalk Project (series of connecting recreational trails near and along Neponset River)	LEED Certified Buildings: The Harbor South Tower BCBS MA building		
4 Stretch Code Adoption	Solar Photovoltaic panels on NQHS	EEBG-signal timing project	Cleaner Greener	Purchase of 42 new bike racks (MAPC reimbursement program)	ENERGY STAR Labeled Buildings: Offices: 150 Newport Avenue, 1600 Crown Colony Hotel, Boston Quincy Merritt Schools (K-12); Lincoln Hancock Elementary, North Quincy High School, Quincy High School, Snug Harbor Community School, Sterling Middle School		
5 EEBG-Green Building policy work	Solar Photovoltaic and solar thermal panels on QHS	EEBG-CCC	Quincy Environmental Treasures program	Potential bike share as part of downtown redevelopment	EEBG-Green Building policy work		
6 Pursuit of Green Communities designation	Solar photovoltaic on Kennedy Senior Center (GreenUp funds)	EEBG-HeatStart retrofit	Beaches and Coastal Commission	Zipcar locations at T stations	Upcoming Central Middle School Project- MSBA model school		
7 Passage of Wind Ordinance	MWRA turbine(s) on Nut Island	EEBG-ESG public education project	Tree and Urban Forest Commission Tree and Urban Forest Management Plan				
8 Joining ICLEI		Single Stream Recycling					
9 EEBG- Hiring of Energy Manager		Stretch Code Adoption					
10 Single Stream Recycling							



**To:** Chris Walker, Director of Policy and Information

**CC:** Quincy Department of Planning and Community Development

**From:** Larry Chretien, Mass. Energy Consumers Alliance

**Date:** March 28, 2011

**Re:** Climate Change Committee

The Energy Efficiency and Conservation Strategy includes the establishment of a Climate Change Committee. This memo outlines a proposed purpose of the committee, lists possible stakeholders and committee members, and suggests a meeting schedule.

#### **Purpose**

Since the Industrial Revolution, human activities, such as the burning of fossil fuels (like coal and oil) and deforestation, have changed our atmosphere by causing the concentrations of heat-trapping "greenhouse gases" (GHG) to increase significantly. These gases prevent heat from escaping to space, similar to the glass panels of a greenhouse, and the resulting increases in global temperatures are affecting our climate.

GHG are necessary to life as we know it, because they keep the planet's surface warmer than it otherwise would be. However, as the concentrations of these gases continue to increase in the atmosphere, the Earth's temperature is climbing above past levels. According to NOAA and NASA data, the Earth's average surface temperature has increased by about 1.2 to 1.4°F in the last 100 years. The eight warmest years on record (since 1850) have all occurred since 1998, with the warmest year being 2005.

If human activities continue to release GHG at or above the current rate, we will continue to increase average temperatures around the world and will most likely change our planet's climate in ways that will have significant long-term effects on people and the environment.

Although climate change is a global issue, it has and will continue to manifest itself locally. Furthermore, many critical actions to address GHG emissions can be initiated locally. Local governments can alter GHG emission patterns significantly through their influence and authority in several ways, such as land use, urban forestry, building codes, waste management, transportation, municipal procurement, and supporting programs designed to assist residents and businesses to reduce their carbon footprint. In



addition, many climate change mitigation measures generate broader non-climate related benefits. For example, energy efficiency programs lower costs while reducing GHG emissions. Carpools and public transportation reduce pollution and traffic congestion in addition to reducing GHG emissions. Reforestation and urban tree programs not only sequester carbon, but also can reduce the amount of energy used for cooling and provide aesthetic improvement. Renewable energy helps to stabilize energy costs and create more jobs compared to fossil fuels, which are also generally imported.

It is within this context that Quincy's Climate Change Committee will have the following objectives:

- Establish a rough, working baseline of GHG emissions in Quincy, at least for certain sectors for which useful estimates of the "carbon footprint" can be made. Given that funding for the CCC is limited, it is not intended here that the CCC spend much time or money on the baseline compared to identifying opportunities for reducing emissions and developing appropriate action plans. The most worthy goal in this respect is to give policymakers and stakeholders a relative sense of GHG reduction opportunities.
- Understand how climate change policy may develop at other levels – international, federal, state, and regional.
- Identify opportunities for reducing GHG emissions in Quincy. Educate the public and local decision makers about the climate change problem and solutions.
- Assist with the organization of the Climate Change Summits.\*

### Meeting Schedule

**Meeting 1:** April 2011

**Meeting 2:** June 2011

**Meeting 3:** August 2011

**Meeting 4:** September 2011

**Climate Change Summit I:** July–Sept. 2011

**Meeting 5:** November 2011

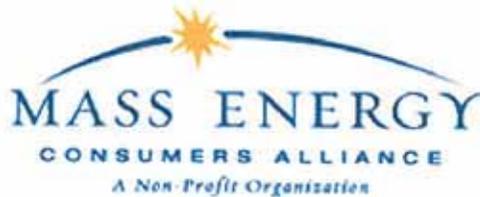
**Meeting 6:** Jan. 2012

**Meeting 7:** March 2012

**Meeting 8:** June 2012

**Climate Change Summit II:** July–Sept. 2012

\*Climate Change Summit I and Climate Change Summit II



The purpose of the Climate Change Summits is to provide a forum to educate the public and local decision makers about the climate change problem and solutions. It will also serve as a forum to report on Quincy's progress as a Green Community, in its EECBG initiatives (Energy Manager, retrofit of Head Start building, synchronization and retrofit of traffic signals, recycling bin program, Energy Smart Quincy), and in its renewable energy projects (Kennedy Senior Center, Quincy High School, Moon Island Turbine).

### **Staffing**

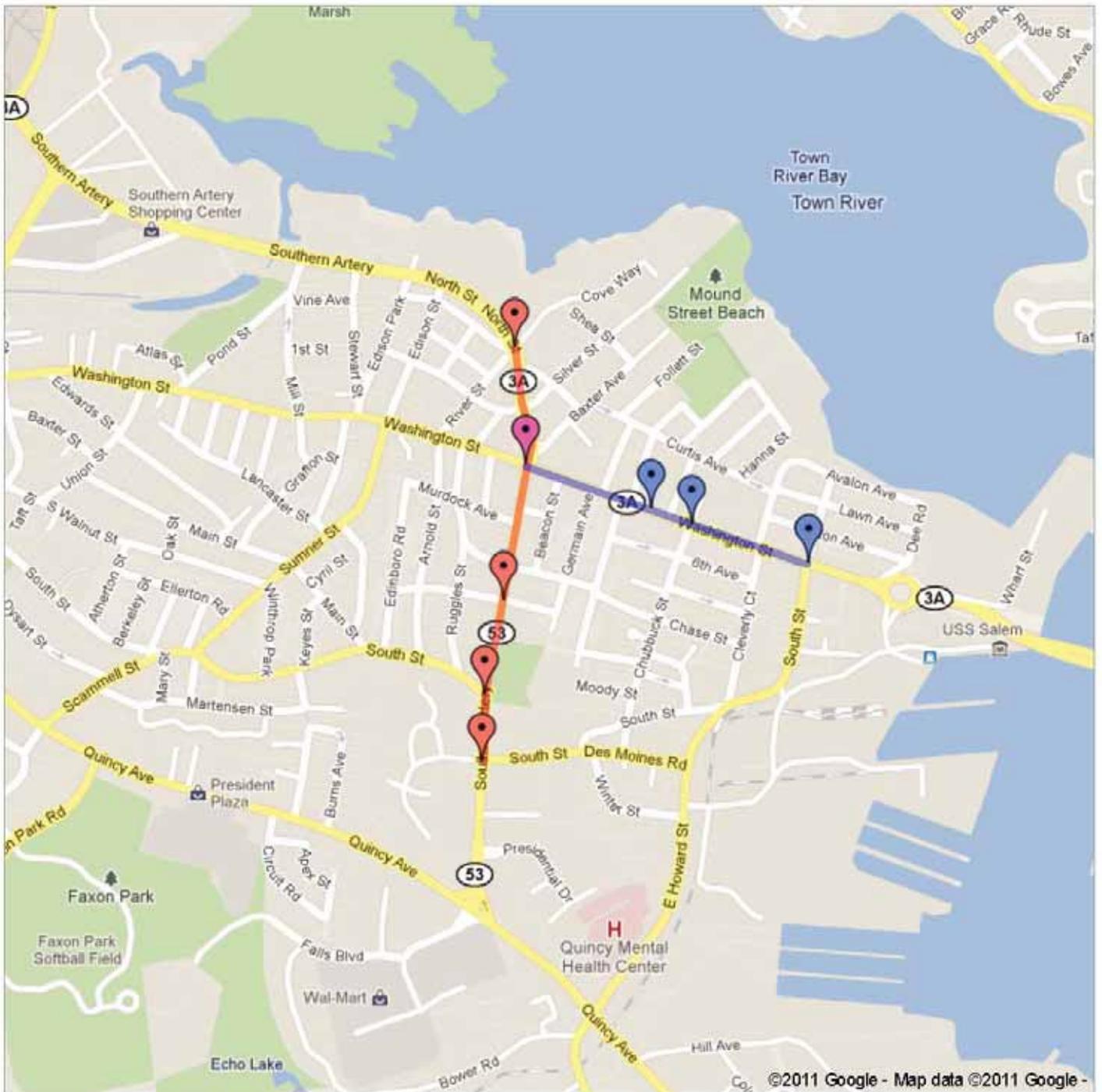
A total of \$30,000 has been budgeted for policy work under the City's EECBG. Approximately \$5,000 has been used for Stretch Code analysis, which was completed in this quarter. Approximately \$20,000 will be used for a subcontract with the Green Roundtable. With limited funds currently available for Quincy's CCC, Mass Energy will focus on getting the group started. Eventually, the CCC will need to be primarily volunteer-led with a very modest level of support from City personnel. Sources of funding might be grants from foundations, corporations, and the Green Communities program, if Quincy qualifies. The City may also be able to reprogram funds from the EECBG.

### **Composition**

We suggest that the Mayor's Director of Policy and Information serve as chairman and that City departments be represented as adjunct members. There will be a need to consult with various departments, but it will not be necessary to have them involved in activities outside their specific responsibilities. Otherwise, the committee should draw from residents and community members concerned about climate change issues such as land use, transportation, waste management, and buildings. Members may include:

- Members of local environmental groups
- Residents of Quincy who are members of the Mass. Energy Consumers Alliance
- Members of the business community
- Members of community and neighborhood groups
- Interested citizens who have come to the attention of the City or Mass Energy.

We recommend that the group consist of 7–13 members.

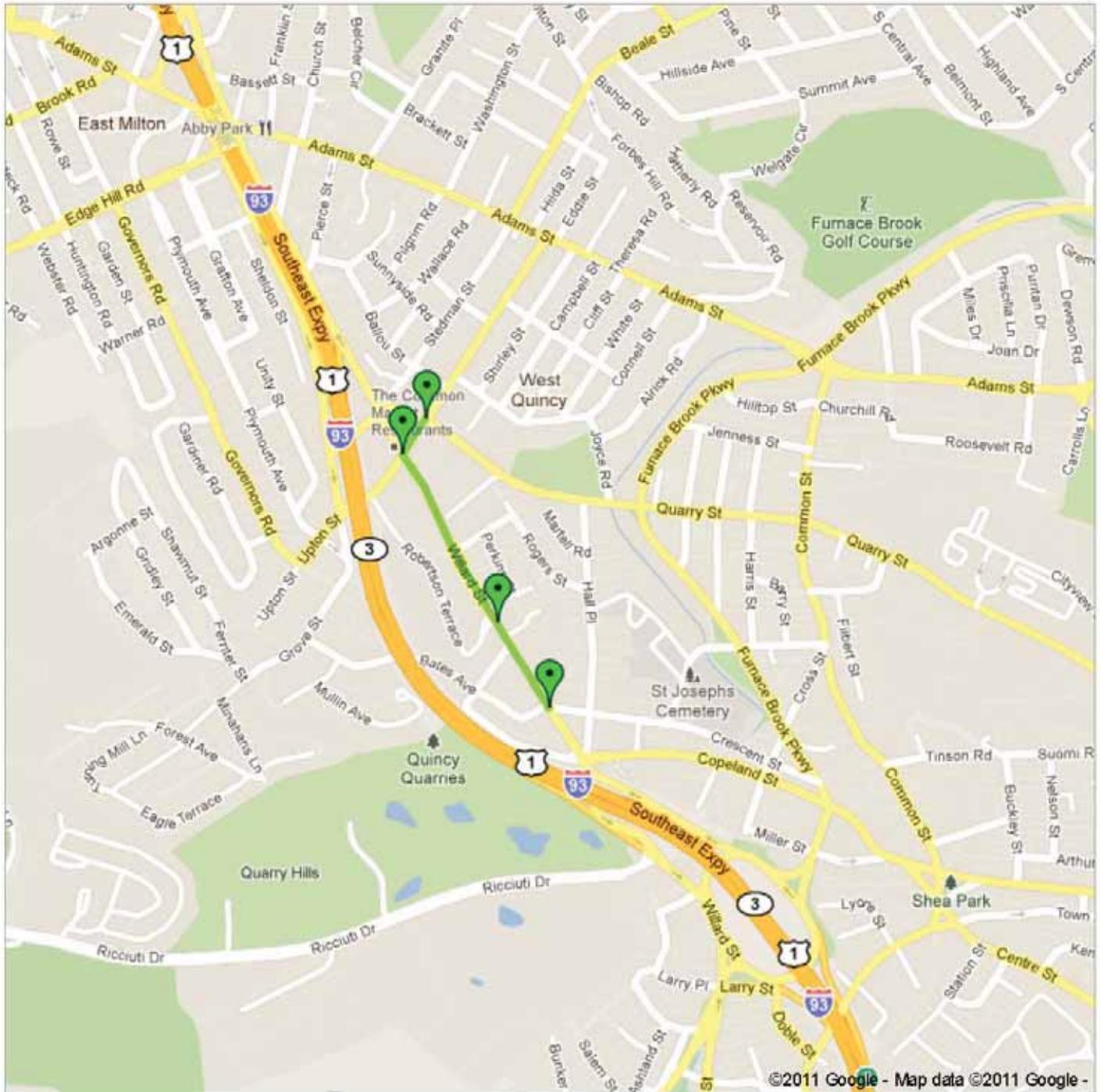


### Traffic Synchronization - EECBG

Unlisted · 0 views

Created on Jul 25 · By Stephen · Updated Jul 26

-  Washington Street at Southern Artery
-  Washington Street at St. Joesph's Pedestrian Crosswalk Light
-  Washington Street at Chubbuck Street/ Hersey Place



### Traffic Synchronization - EECBG

Unlisted · 0 views

Created on Jul 25 · By Stephen · Updated Jul 26

-  Washington Street at Southern Artery
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-  Washington Street at Chubbuck Street/ Hersey Place



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# Department of Energy EECBG Grant





# Projects

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- Brewer's Corner LED Traffic Signal
- QCAP Headstart
- Purchase of Recycling Bins
- Traffic Synchronization
- Mass Energy Outreach/ Energy Audit activities



## Brewer's Corner

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- This project will install an energy efficient traffic signal as part of a comprehensive economic development rehabilitation project in one of Quincy's most economically distressed neighborhoods.
- Brewer's Corner is a predominantly low and moderate income area according to the 2000 US Census.

# Brewer's Corner

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Brewer's Corner has some of the most antiquated traffic signals in the City with Red and yellow crosswalk signals.



# Brewer's Corner

Brewer's Corner Groundbreaking held during Community Development Week 2011.



# Brewer's Corner

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Boring holes for mast arm that will hold new LED Energy Efficient Traffic Signal.



# Brewer's Corner

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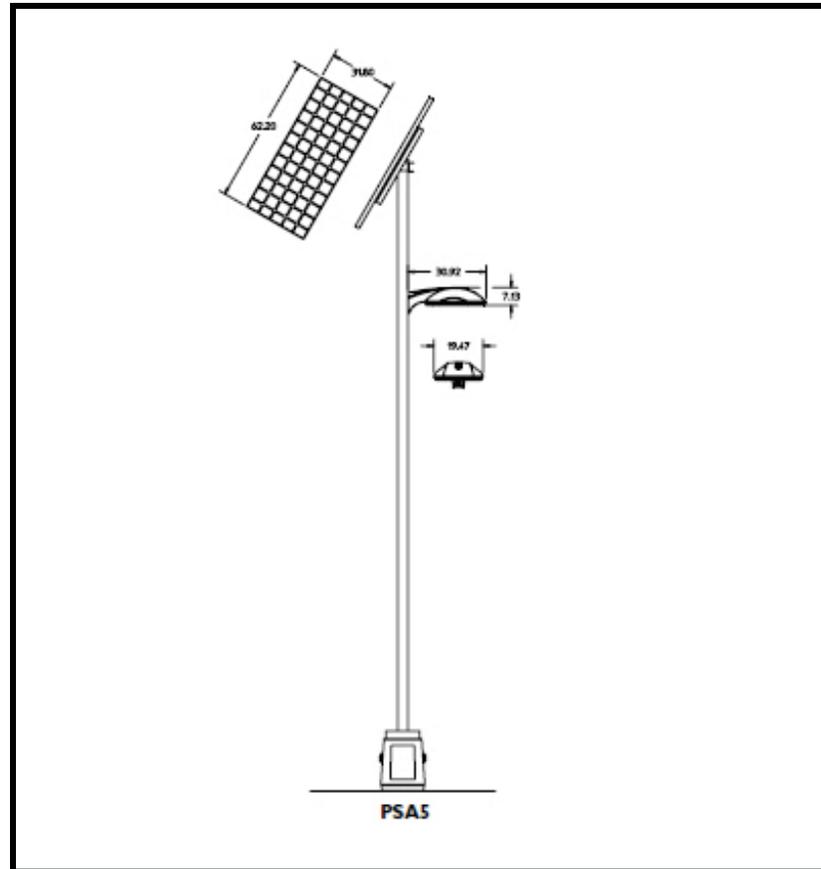
Sidewalk realignment and crosswalk improvements were also part of the project, but paid for out of separate funds.



# Brewer's Corner

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Phase Two of the project will include a pilot program for solar light installation, to improve safety in the area.





# QCAP Headstart

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- This EECBG grant will be sub-awarded to the Quincy Community Action Program to implement energy efficiency measures for a retrofit of a former elementary school building in the Quincy Point area of Quincy, a predominantly low and moderate income area of the City.
- The building will be used for a regional Headstart program and provide both classrooms and administrative space.
- Energy efficiency measures for this 20,000 square foot building, built in 1941 include insulation, window replacement, energy efficient HVAC and energy efficient lighting and controls.

# QCAP Headstart

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- Rooftop units being prepared for installation on new roof.



# QCAP Headstart

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- Energy Recovery Ventilators installed at basement level.



# QCAP Headstart

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- Completed installation of units on the rooftop.



# QCAP Headstart

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- Rendering of the façade side of the school once completed.





# Purchase of Recycling Bins

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- The city purchased 3,580 recycling bins in order to increase participation in the city's curbside recycling program.
- The city has had a program in place since 1988, but on July 1, 2008 adopted a "single stream" program that has resulted in a higher recycling rate than in recent years.
- In most communities with single stream, residents are offered a large recycling bin capable of handling a mix of paper, glass, metal, and plastics. Quincy has approximately 33,000 households. Using block grant funds, the city will purchase the desired toters on a pilot basis and measure participation in the affected neighborhood before and afterwards.

# Purchase of Recycling Bins

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- Using block grant funds, the city will purchase the desired toters on a pilot basis and measure participation in the affected neighborhood before and afterwards.





# Purchase of Recycling Bins

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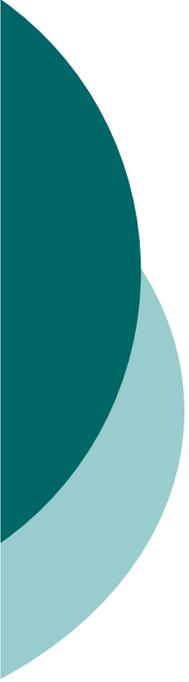
- Barrels were distributed along existing routes, namely the Monday route, to make tracking and measurement of change in recycling habits more easily measured.
- A survey was also conducted through the City's website to see what effect the barrels have in recycling habits.
- Over 80% of survey respondents said the barrel would increase the amount they would recycle.



# Purchase of Recycling Bins

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- A formal analysis was conducted through Mass Energy which showed that the savings were worth the cost of the barrels.
- Next steps would be to find further funds to expand the recycling barrel pilot program City-wide.



# Traffic Synchronization

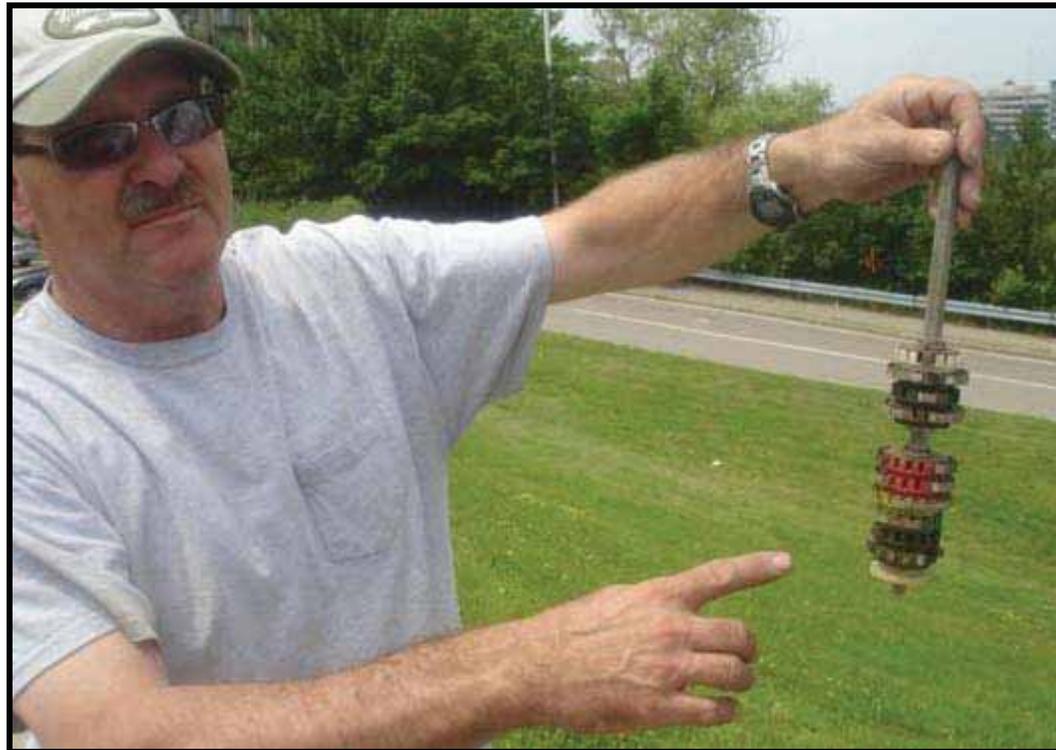
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- The City Traffic Engineer operates a computer program from his office where he communicates with master controllers in each system. These master controllers, in turn, are hard-wired to many local intersection controllers.
- According to published reports, the interconnected and synchronized traffic signal systems save motorists between 15 to 20% in both delay and gasoline. This also results in less acceleration of stopped vehicles which reduces both noise and air pollution as well. By reducing the number of vehicle stops within a roadway corridor or system it is reported that the number of rear-end type crashes are also reduced.
- Sections of Washington Street, Southern Artery, and Willard Street need to be improved with master signal controllers, new local controllers, hard-wired cabling either above or under ground, and soft-ware upgrades in the engineers office.

# Traffic Synchronization

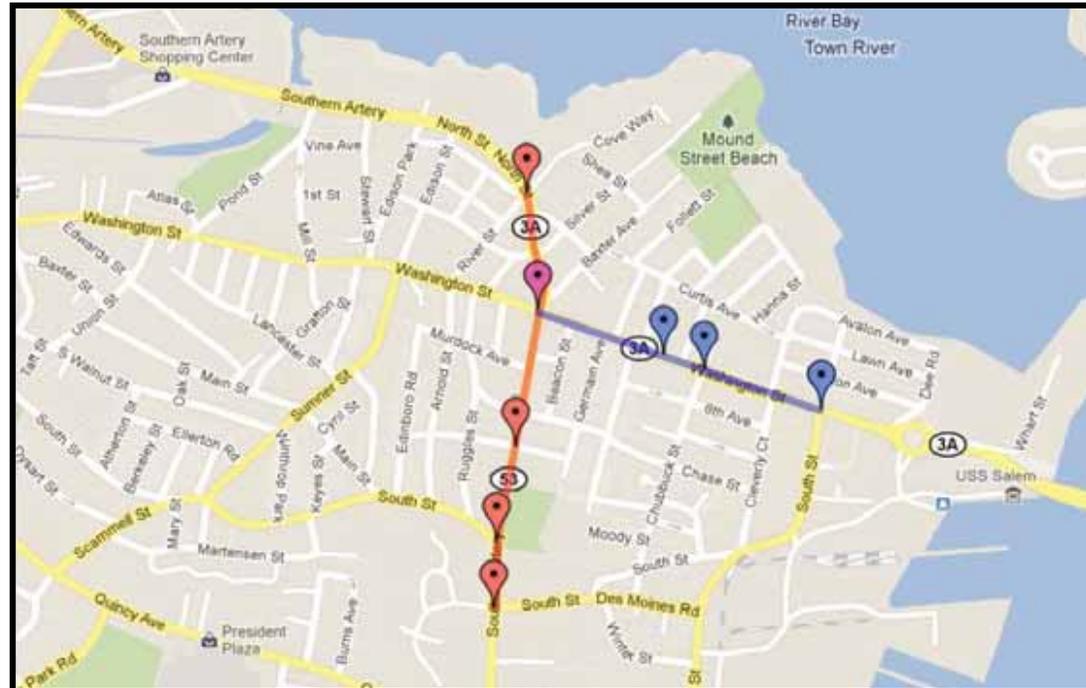
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- Traffic-light controls have evolved far from the vintage, gear-driven red-yellow-green system displayed by Bobby DeCristofaro, who maintains Quincy's intersection signals.



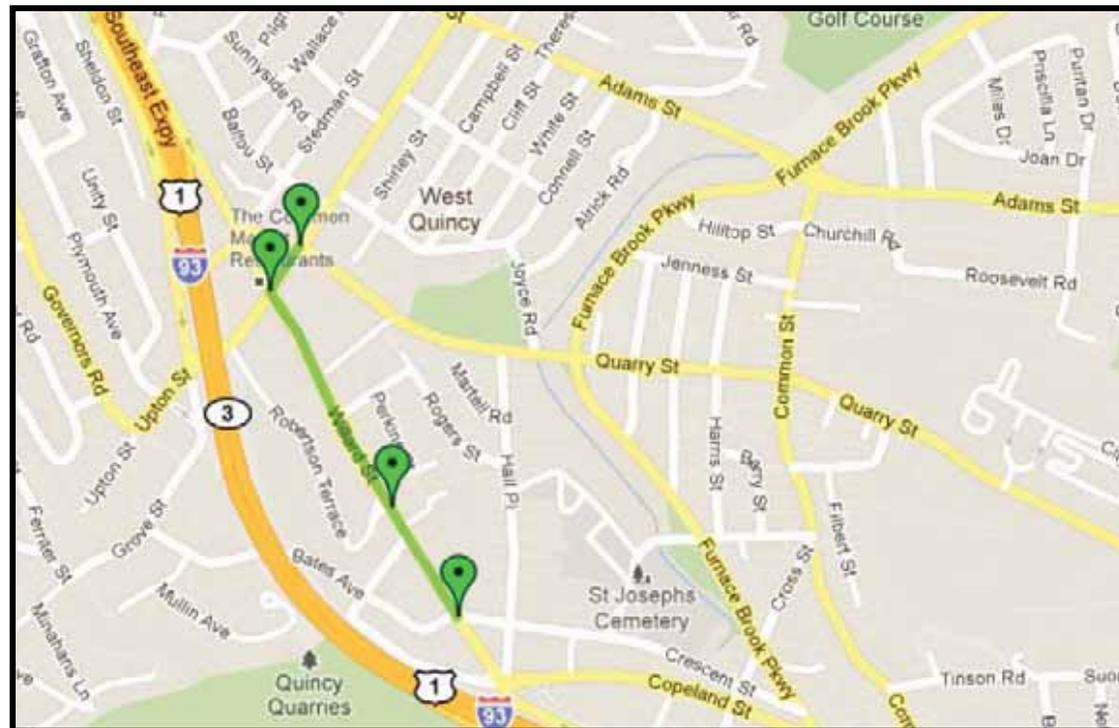
# Traffic Synchronization

- The first section is the intersection of Route 3A and Route 53.



# Traffic Synchronization

- The second section is along Willard Street/ Quarry Street intersection, a heavily traveled road that parallels Interstate 93.



# Mass Energy Outreach/ Energy Audit activities

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- Mass Energy has conducted outreach throughout the community to get residents Energy Audits



# Mass Energy Outreach/ Energy Audit activities

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- Energy Audits reports allow residents to see where Energy Saving can found

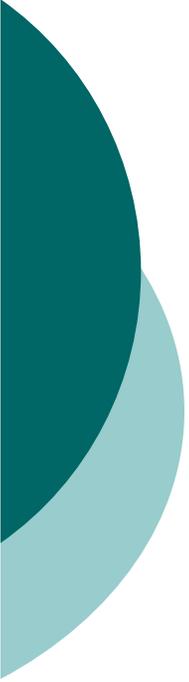


# Mass Energy Outreach/ Energy Audit activities

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- These savings can be achieved in as little as changing out inefficient light bulbs.





# Projects

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We hope you enjoyed this pictorial overview of the status of our projects to date.

- Brewer's Corner LED Traffic Signal
- QCAP Headstart
- Purchase of Recycling Bins
- Traffic Synchronization
- Mass Energy Outreach/ Energy Audit activities