

SOLARIZE BOSTON COMMUNITY OUTREACH PLAN

INTRODUCTION

In 2007, as a part of the US Department of Energy's Solar America Cities program, City of Boston Mayor Thomas M. Menino set the ambitious goal of siting 25 Megawatts of solar capacity by 2015. One of the initiatives designed to assist the City in reaching this goal, Renew Boston Solar, was launched to support residents across the city through guidance and financial support. Using funds provided by the American Recovery and Reinvestment Act of 2009, the Renew Boston Solar program offers rebates for residential solar PV installations up to 15 kW in size. This rebate program, along with other city-lead initiatives, has contributed to the development of over 100 solar PV installations totaling in 6 MW of capacity.

This spring, the City of Boston will wrap up the Renew Boston Solar program as the federal funding is depleted. Through recent community outreach events, the Renew Boston Solar program has built a significant momentum among residents who have expressed interest but may not be able to take advantage of the rebate in time. The Solarize program offers an opportunity to continue the push for cost-effective residential solar installations across the City's diverse neighborhoods. Utilizing the existing marketing and outreach infrastructure, as well as advancements made in simplifying the permitting process, the Solarize program is poised to take full advantage of the current momentum in the residential solar market in the City of Boston.

TEAM

Brad Swing - As Director of Energy Policy for the Office of Environmental and Energy Services, Brad is directing Renew Boston's program development and delivery under the Energy Efficiency and Conservation Block Grant. Brad has extensive experience within City government in promoting the adoption of solar power for businesses and residents under the Solar America Cities program and will continue under the SunShot initiative grant in partnership with Mass Department of Energy Resources.

Jacob Glickel - As Chief of Staff for the Office of Environmental and Energy Services, Jacob is the program manager for Renew Boston's residential energy efficiency program and the solar residential pilot program. As program manager, Jacob directs a team of outreach staff promoting the Renew Boston program offer and the general MassSave program.

Amy Vavak - As Associate Director of Mass Energy Consumers Alliance, Amy is managing programs for Renew Boston residential energy efficiency program as the lead contractor, as well as Mass Energy work on green power purchasing programs and statewide community outreach in energy efficiency through a grant from the MA DOER.

Jayson Uppal - As solar consultant to the City of Boston with Meister Consultants, Jayson is staffing the Renew Boston residential solar pilot program along with providing solar industry expertise to the City of Boston.

Boston's Community Outreach Team consists of these great partners to the City of Boston's work in making Boston the most sustainable city in the country:

Mass Energy Consumers Alliance – Amy Vavak, Associate Director
Solar Fenway – Sajed Kamal, Coordinator
Boston Climate Action Network – Loie Hayes, Director
Greening Rozzie – Amy Galblum and Kim Patch, Co-Directors
West Roxbury Saves Energy – Rickie Harvey, Chair

The City of Boston has worked extensively with all of these organizations in the past on sustainability initiatives, including solar power outreach. All of these community organizations are looking forward to working with the Mass Clean Energy Center and the City of Boston to promote the adoption of solar power in their neighborhoods.

MARKETING PLAN

With the Renew Boston program, the City has already created a number of outreach and engagement channels around clean energy programs. The Solarize Boston program can take advantage of this existing infrastructure to reach a wide range of residents without a significant upfront cost.

EXISTING OUTREACH EFFORTS

The Renew Boston team has been working with community partner Mass Energy to provide on-the-ground community engagement around the City's various energy efficiency and renewable energy initiatives. As a part of this outreach effort, seven workshops were organized for landlords and renters in Mattapan, Brighton, East Boston, Dorchester, and Jamaica Plain. In total 534 people signed up for the Renew Boston home energy services program at the seven workshops. 3.8 people signed up for every hour of staff or volunteer time invested. According to Mass Energy, that is higher than their overall event average of 2.9 signups per hour.

The Renew Boston team utilized a number of communication channels to market these events, including offline through mailings and online through social media, presentations at a local community meetings and the Renew Boston website.

MAILINGS

The primary outreach method for the seven workshops was mailings to homeowners from the City's Assessors database. Usually mailings were sent to about 3-4000 people in zip codes nearest to the event. Receiving a flyer in the mail was the top reason people gave for attending the workshops.

SOCIAL MEDIA

The Renew Boston team has created a Twitter account that has amassed 635 followers. In addition to providing information on new programs and interesting news happening in clean energy in Boston and the Northeast, the platform served as a way to advertise events.

RENEW BOSTON WEBSITE

Since its inception in March 2011, the renewboston.org website has received 57,751 page views from 13,784 unique visitors.¹ This website advertised workshops on its front page, and provided key information including maps and directions to the event. In addition, the website is designed to provide the latest tweets on the right hand side of every page, providing additional exposure for events posted on the Renew Boston Twitter account.

TRANSITION TO SOLARIZE BOSTON

Due to the time restrictions on the ARRA funding for the Renew Boston Solar rebates, the Renew Boston team will not be able to entertain new rebate awardees after May 1, 2012. This timeframe falls in line with the expected ramp-up period for the Solarize program. At this time, the Renew Boston team will transition its marketing efforts away from the rebate program and towards the Solarize program.

SOLARIZE BOSTON MARKETING IMPLEMENTATION PLAN

Through the Renew Boston program, the City has already established various outreach channels designed to promote residential renewable energy initiatives. The Solarize Boston program will utilize these existing channels, and with its community partners, build off the successful engagement strategy already put in place.

COMMUNITY EVENTS

The City will plan to utilize the marketing toolkit provided by the MassCEC to host the Solar 101 and Solar 201 events at the beginning of the program. The City has a number of facilities that can be used free of charge in every neighborhood that can host small meeting and meetings for over 100 people. Additionally, the Renew Boston team continues to hold information workshops about other clean energy initiatives. These workshops can be used as an opportunity to inform residents in neighborhoods that may have not been served by the Solar 101 and 201 meetings, and provide a continued reminder of the program through the summer.

Based on the results of the initial pilot, it is clear that many residents are motivated by timing and the program deadline. It would therefore be advantageous to focus our marketing push closer to the August 31st deadline. This may include holding a series community workshops similar to the ones held for Renew Boston initiatives, focusing on areas with higher adoption and potential for solar PV installations. Additionally, the team will have a booth at key City events, such as the Boston GreenFest on August 16-18.

MAILINGS

Flyer mailings proved to be one of the most successful outreach methods for the Renew Boston program. If funding is available, the team will follow the Renew Boston model by sending a targeted neighborhood specific mailing with information about upcoming Solarize events and general Renew Boston energy efficiency program information.

¹ As of 5:30 PM on March 20th, 2012

SOCIAL MEDIA

In addition to the Renew Boston Twitter account with 635 followers, a Green Boston facebook page with 900 followers, community partner Mass Energy has a twitter account with 417 followers, the City of Boston has a Twitter account with 6,724 followers and the designated Chief Executive Officer Mayor Thomas Menino has his own Twitter account with 12,871 followers. All of these accounts and more will be used to advertise the Solarize Boston program, planned community events, and the August 31st deadline.

WEBSITE

One of the most compelling aspects of the Solarize program is the tier system, which provides incentive for residents already signed up for the program to contribute in the outreach effort. A website dedicated to the Solarize program will provide up to date information on how many people signed up for the program, what tier the program has reached, and a place for early adopters to share information about the program via email and social media. This website will be central to communication around the program, and can provide a source for materials for both volunteers who are promoting the program and residents interested in learning more about the program. Our web team will use the main CityofBoston.gov page to promote this page.

With the existing Renew Boston website and the Renew Boston solar map, the City already has the backend infrastructure set up to create the Solarize Boston website.

PERMITTING

The City of Boston, working with the Boston Inspectional Services Department (ISD) has designed and implemented a streamlined permitting process for solar PV installations on residential buildings with four units or fewer. Two permits are required for a solar PV installation: a building permit and an electrical permit.

BUILDING PERMIT

PROCESS

To obtain a building permit for a solar PV system on a residential building with four units or fewer, the installer must complete a short-form building permit application. This building permit application can be completed online at onlinepermitsandlicenses.cityofboston.gov/isdpermits/.

On the short form application, installers need to provide the following information:

- Occupancy of the building
- Estimated project costs
- Stamped layout drawings showing where the system is located on the roof
- Roof structural drawings
- Drawings of the mounting system
- Proof of workman's compensation insurance

- Copy of the contract with the homeowner

Once submitted, the permit is assigned to an ISD plan examiner who works directly with the installer to ensure that the process occurs as quickly and as smoothly as possible.

ADDITIONAL REQUIREMENTS FOR HISTORIC DISTRICTS

If the solar installation is located in a historic district, the local Historic District Commission will also review the application to determine whether the project meets the guidelines for historic preservation. Preservation planners from each commission will assist installers through the process. Installers can find out where these Historic Districts are on the Renew Boston Solar Map located at gis.cityofboston.gov/solarboston.

FEE STRUCTURE

Upon submitting the application, the installer is expected to pay a \$50 application fee. The final permit fees are based on the total project cost **excluding the cost of all panels and inverters**. The current fee is \$10 for every \$1,000 of declared project cost. This revised permitting fee, a result of an ordinance from the Mayor's office, reduces permitting costs for solar installer by up to 60%.

ADVANTAGES OF THE SHORT FORM PROCESS

Unlike the long form application, the short form application does not require verification from a professional engineer indicating that the roof is able to support the load of the system. The short form application also does not require a cost and control affidavit completed by a licensed construction professional. Both of these requirements were deemed unnecessary for smaller residential solar PV installations, and therefore are not required from ISD. The short form application reduces the burden on ISD and eliminates extra upfront costs for the installer.

ELECTRICAL PERMIT

PROCESS

Like the building permit, the electrical permit can be accessed online. The electrical permit can only be applied by a Massachusetts electrician with a valid electrician's license. The electricians are required to submit proof of workman's compensation insurance and liability insurance.

FEE STRUCTURE

Upon submitting the application, the electrician is expected to pay a \$20 application fee. The final permit fee is \$0.25 per amp for systems up to 240 volts, or \$0.75 per amp for systems over 240 volts.

RESOURCES

In June 2007, the City of Boston became one of the thirteen inaugural Solar America Cities under the US Department of Energy's Solar America Initiative. As a part of this program, the City of Boston created two key resources for solar PV installers: the Solar Permitting Guide and the Renew Boston Solar Map.

SOLAR PERMITTING GUIDE

The Solar Permitting Guide, written in 2010 and updated in 2011, is a resource that walks installers and homeowners through the process of obtaining permits for solar PV installations. The guide includes information about the different applications, what information is needed to complete each application, where to file the permits, and what the permit fees are. The guide can be found online at www.cityofboxton.gov.

RENEW BOSTON SOLAR MAP

The City of Boston partnered with the Boston Redevelopment Authority and the Department of Innovation and Technology to create an online map of solar, wind, and other renewable energy projects throughout Boston. In addition, this map provides installers information as to what the total annual solar radiation available on each individual building, where NSTAR may restrict solar installations, and areas that are designated Historic Districts and may require additional review by the Historic District Commission. This map is available online at gis.cityofboston.gov/solarboston. All participants will have the opportunity to add their solar projects to the map upon completion.

PLANNED IMPROVEMENTS TO THE PERMITTING PROCESS

In December 2011, a consortium of Massachusetts towns including the City of Boston led by the Department of Energy Resources won a \$550,000 grant dedicated to reducing the soft costs for solar installations. This grant, provided through the US Department of Energy Sunshot Rooftop Solar Challenge, is focused on identifying and implementing best practices for streamlined permitting, interconnection, financing, and zoning of solar PV projects.

Two goals defined by the Sunshot Massachusetts team are to develop a model permitting process that can be adopted throughout Massachusetts, and to create structural review guidelines for building inspectors on the impact of PV on residential roofs.

GOAL 1: DEVELOP MODEL PERMITTING PROCESS

The City will be involved in a comprehensive survey of 50 towns and cities across Massachusetts of best permitting practices. Using this information, the Sunshot team will develop a model permit for residential solar PV systems. In addition, the data collected will be uploaded to a centralized web database where cities can benchmark permitting costs against each other.

GOAL 2: CREATE STRUCTURAL REVIEW GUIDELINES FOR BUILDING INSPECTORS

The City of Boston has one of the oldest building stocks of any city in the country. Combined with snow loads, these old buildings may not have the structural integrity to support a solar PV installation. This issue was brought to the City's attention when a roof supporting solar panels collapsed in Harvard, MA in the winter of 2010.

With its streamlined permitting process, Boston does not currently require small residential systems to receive a stamp from a structural engineer. However, to address safety concerns, the City with the Sunshot team is looking to create a set of guidelines for inspectors to determine whether a roof needs

reinforcement to support a solar PV installation. This will ensure that installers will not have to go through the costly review process for most small solar PV installations, keeping costs down.

CONCLUSION

The Renew Boston Solar program has been a success for the City in promoting residential solar and helping the Mayor Menino reach his stated goal of installing 25 MW of solar capacity by 2015. Over the past year, the Renew Boston team has educated residents about the benefits of installing solar PV through community workshops, events, mailings, and social media outreach. Additionally, by both reducing permitting costs and offering additional rebates for residents, Boston has built significant interest around solar.

With the expiration of the rebate program, the City is looking to offer a new and innovative way to continue to drive solar adoption. The Solarize program, designed to harness this type of community excitement, will be a great addition to the suite of existing offerings for clean energy options for residents. With the Solarize program, the City and Mayor Menino will be one step closer to reaching its goal.