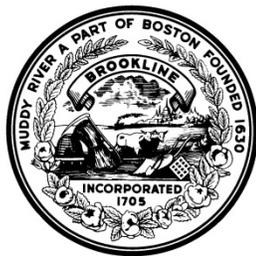


Town of Brookline

Solarize Massachusetts: Brookline

Application and Community Outreach Plan



Town of Brookline, Department of Planning & Community Development

2/20/2013

Introduction

The Town of Brookline, in cooperation with grassroots nonprofit Climate Action Brookline, is submitting this proposal in response to the 2013 *Solarize Massachusetts: Round 1* Request for Proposals submitted by the Massachusetts Clean Energy Center, RFP ID MassCEC 2013-SMP-01, posted 1/16/2013.

Solar development is a key action identified in the town's newly adopted Climate Action Plan (www.brooklinema.gov/cap), and the Solarize Mass program provides the town, its committees and Climate Action Brookline with a valuable opportunity to increase the amount of solar PV in Brookline and reduce greenhouse gas emissions.

Community Outreach Plan

❖ *Team*

The Solarize Mass Brookline team will consist of both paid town staff and volunteers from the community. One of the key partnerships will be with **Climate Action Brookline** (CAB), a nonprofit grassroots group that is independent from town government, who will take the lead with organizing outreach and volunteers. The town will provide support for the Solarize Mass initiative primarily through its **municipal representative, Lara Curtis Hayes**, and the Department of Planning and Community Development. Ms. Curtis Hayes has provided staff assistance to the town's **Selectmen's Climate Action Committee** (CAC) since its creation in 2008, and has managed both the town's EECBG program and Green Community designation grant. The **Community Solar Coach** will be **Werner Lohe**, an active member of both the CAC and CAB, and **Keske Toyofuku**, also a member of the CAC, has committed to act as a Deputy Solar Coach. Both Mr. Lohe and Mr. Toyofuku have submitted personal statements to indicate their commitment to the Solarize Mass program. Mr. Lohe's signed statement is also attached separately.

Community Solar Coach and Deputy Solar Coach Personal Statements

Werner Lohe:

Since 2000, as one of the founders of Climate Action Brookline, a grass-roots organization of Brookline residents and businesses, I have had a commitment to bringing renewable energy to Brookline. In the early 2000s, as an elected Town Meeting Member, I was the town's official representative to ICLEI's Cities for Climate Protection program. Recently, as the Brookline Conservation Commission representative to the Selectmen's Climate Action Committee, I chaired the subcommittee that drafted the town's Climate Action Plan. One of the actions identified in that plan is to develop a program for solar (PV) installations on residential and commercial roofs, and I have been chairing a subcommittee that has been studying PV and planning for possible participation in Solarize Mass.

I have experience introducing new ideas to the community, whether working as a member of the executive board of my neighborhood association or leading the movement to adopt the Stretch Code by Town Meeting. I expect to build on this experience while facilitating a Solarize Mass program in Brookline.

– *Werner Lohe*

Keske Toyofuku:

As a recent transplant to Brookline from California, I have been amazed at the level of organization and passion that exists within the Brookline community to further environmental causes. It is this passion and enthusiasm that interested me in joining the effort to try and make a difference within our community. The environment is one of our most important causes, and for that reason I work for a company in Boston that develops, builds, and operates utility-scale wind projects throughout the U.S. The positive impacts I see from these utility scale projects inspires me to make positive contributions to the community that my family and I now call home. My background in renewable energy and enthusiasm for making a difference can be of benefit when challenging the residents of Brookline to join in the effort to promote and use more renewable energy.

Both of us have reviewed the Community Solar Coach Program Duties and Commitments, and are committed to facilitating the Solarize Mass program and abiding by its regulations.

– *Keske Toyofuku*

The chairs of Climate Action Brookline have also submitted a letter of support for this application (attached separately). Other partnerships include the **Brookline Chamber of Commerce** and **MOMS Club of Brookline**, who have already committed to participate. Other groups will be recruited from a lengthy list of partners who have collaborated with CAB on its annual Climate Week (see Appendix A).

Partnership & Team Experience

Town staff, the CAC, and CAB have recent and current experience working together on implementing broad outreach plans, such as with Green Homes Brookline and Climate Week. Green Homes Brookline is a residential energy efficiency program that markets Mass Save energy assessments and rebates on insulation and air sealing. The program was partially funded by the town's Energy Efficiency and Conservation Block Grant (EECBG), and when the program appeared as though it might not use all of its \$145,000 in program funding due to lack of resident participation, CAB, the town, and weatherization contractor Next Step Living put together an extremely successful coordinated outreach plan that brought the program from underperforming to oversubscribed in a matter of a few months, resulting in a total of 1,224 energy assessments and 258 home weatherizations at the close of the EECBG grant on September 30, 2012. The outreach included tabling at events, organizing workshops and canvassing targeted neighborhoods, all methods expected to be implemented with the Solarize Mass program. The Green Homes Brookline partnership learned that a successful outreach plan is built on a foundation of good communication, and a weekly conference call

schedule was created between the town, CAB volunteers and Next Step Living staff, which continues to this day despite the end of supplementary grant funding. As of February 2013, the program counted 1,332 energy assessments and 362 weatherizations.

Similarly, CAB and the CAC collaborated on Brookline's third annual Climate Week in January 2013. With 34 participating partner groups and over 110 production volunteers (business people, speakers, artists, etc.), CAB took the lead in preparing 51 events, activities and displays, which were staffed by 37 citizen volunteers recruited by CAB.

While the team expects to pull extensively from its experience partnering together on climate and weatherization initiatives, CAB has engaged in several successful outreach programs on its own as well. For example, during a one-year period in 2009 and 2010, through a canvassing and outreach campaign, it increased participation by Brookline residents in the NSTAR Green program from roughly the state average of 1% of households to 2.7%, adding about 400 customers to the program. The leaders of this effort are among the volunteers already committed to Solarize Mass, and their experience will be brought to bear in the program.

The Solarize Mass Brookline team will implement outreach, media and other strategies based upon the lessons learned from its past programs, and has reviewed the programs of past Solarize Mass efforts to find new ideas. The team will look to establish particularly close communication coordination with the selected installer and with its community group partners.

❖ *Community*

Located just outside of the City of Boston, Brookline has a population of nearly 59,000, with 25,092 households and 12,253 owner-occupied dwelling units (Source: Census 2010). A town form of government, headed by an elected five-member Board of Selectmen and a representative Town Meeting, oversees all government functions. Most decisions in town are made by and through committees, taking advantage of the skills of a highly educated population; nearly 51.5% of the population aged 25 or older have graduate or professional degrees, and 41.5% of the town works in the education, health care, and/or social assistance industries (Source: Census 2010).

The town is primarily residential with its commercial areas located along major thoroughfares, including Commonwealth Avenue, Harvard Street, Beacon Street, Washington Street and Boylston Street (Route 9). Town residents have excellent access to public transit, including the MBTA's B, C and D Green Lines. The town's housing stock ranges widely, with primarily single-family homes in the south to a mix of single-, two-, three- and multi-family buildings as one moves north. Several large, multi-story apartment and condominium buildings exist in North Brookline, particularly around Coolidge Corner and Washington Square.

Despite being quite urban in areas, the town has significant tree cover and an active urban forestry program, with more than 50,000 trees under the town's jurisdiction. The team and

partners will need to take into consideration tree cover when planning canvassing efforts and other outreach methods.

Additionally, the town's historic fabric is quite important to its overall character, and there are seven small local historic districts in town over which the town's Preservation Commission has jurisdiction, reviewing exterior modifications that are visible from a public way, including solar panels. However, local historic districts and renewable energy facilities have proven to not be mutually exclusive; under strong leadership from the Commission's chair—an architect who lives in a local historic district and has installed solar PV on his own home—the Preservation Commission has developed design guidelines that permit installation of solar PV on homes in local historic districts while respecting the historic character of the buildings. The Preservation Commission has approved solar PV installations on five homes in local historic districts.

❖ *Marketing & Outreach*

Working with program volunteers and partners, the Solarize team will use a combination of electronic, social and traditional media, event tabling, mailings, posters, banners, and targeted outreach to build interest in the Solarize program and educate residents and business owners about the benefits of solar PV. Spreading the word about the Solarize 101 and 201 workshops will be key, as such workshops can clarify the solar process to make it more accessible to interested households. Tabling at events such as the Farmers' Market and the Rotary Club's Pancake Breakfast, using the town's BrookOnline email list and the email lists of partners, and establishing an online presence are all key aspects of the team's marketing plan. The team has experience using all of these methods for Green Homes Brookline, as well as more traditional sources of exposure through Brookline's local newspaper and media, including the Brookline TAB, the Brookline Patch, and Brookline.com, and we plan to use these methods as well for Solarize Mass Brookline.

The marketing and outreach plan includes the following methods, among others:

- Regular table at the Farmers' Markets, including the Winter Farmers' Market early in the season.
- Tabling or a presence at local events, including the Rotary Club's Pancake Breakfast, Flag Day Parade and Celebration, Movie in the Park events, Brookline Day, and other partner happenings as they are planned.
- Event announcements over the BrookOnline email list and those lists of our partners.
- Direct mailings to town residents, and if possible, inserts into tax bills.
- Posters in town kiosks, the Community Window, and the storefront windows of partnering local businesses.
- Solar open houses and an "Early Adopter Media Campaign."
- Direct outreach to large property owners, both commercial and residential.
- Canvassing and door hangers in neighborhoods with homes that appear to have excellent solar access.

Aside from the Solarize 101 and 201 events, and piggybacking on already popular community happenings, the team will develop new events, such as solar open houses at the homes of volunteers. Two volunteers have already been identified as prepared to host open houses, and the team expects to identify more among the over two dozen existing residential solar PV installations in town. The team will also conduct an “Early Adopter Media Campaign.” Such a campaign will follow one of the first Solarize Mass Brookline participating households with regular blog posts and press releases describing their experience, such as during the initial solar assessment, the signing of the contract, and the actual installation. Photos and video records of their experience will be shared and, if applicable, posted on YouTube.

A consistent brand image will be necessary, as well as emphasis of the program’s deadline. A deadline tends to create a sense of urgency both for interested program participants and outreach staff, so a large amount of marketing at the end of the program is just as important as at the beginning. The Green Homes Brookline team experienced this deadline-motivated rush when it set a sign-up deadline last spring, and the *2012 Solarize Massachusetts Program Update* documents a similar acceleration in contracts among participating communities as the end of the program approached. The Solarize Mass Brookline team has reviewed both the *Solarize Mass Pilot Overview* and the *2012 Program Update* to learn from other towns’ past experiences while putting together this outreach plan.

The Solarize team recognizes that targeted marketing in key areas of high solar potential is extremely important to managing a successful program. The Green Homes Brookline partnership had success particularly with targeted mailings to advertise informational workshops, as well as canvassing those neighborhoods that were likely to benefit the most from the program. The Solarize Mass Brookline team would use the town’s GIS system and Assessor’s Database to determine which areas of town appear to have excellent solar access, particularly taking into consideration tree cover, similar to the way the Town of Arlington targeted homes in their Solarize Mass Arlington experience in 2012. Canvassing these homes would use volunteer resources effectively and bring awareness of the program to those households that may find the program the most valuable.

The Solarize Team also believes that setting a clear goal for the program will motivate the core group of volunteers and assist in disseminating the Solarize message to the public. (Prior to publicizing the goal, the team will consult with MassCEC staff and the selected installer to verify that this will in fact assist and not detract from the overall message.) Team members have already consulted with CAB volunteers, and a consensus has developed around a goal of 850 kW of total installations. In general this seems a reasonable target, since Arlington, a similar community, reached 718 kW with 157 individual contracts. Brookline’s goal includes 150 small, residential installations averaging 5 kW each for a total of 750 kW, and 8 larger, 12.5-kW-average installations on commercial properties and medium-sized apartment buildings and condominiums. These 10-to-15-kW installations will be on flat roofs, which total 4,960,000 square feet of gross area, and focus on commercial properties. However, the team will also have a minor focus—perhaps for two installations—on small or medium-sized condominiums. A subcommittee of the CAC has already begun working with the trustees of two condominiums to develop a model for minimizing legal hurdles to solar installations on condominiums. Building on the results of the soon-to-be-released Cambridge/DOER/DOE

SunShot guide, this subcommittee and the Solarize Mass Brookline team will work with the selected solar installer to address legal and practical issues around installing solar PV on condominium buildings.

With the support of the town, the Solarize team has identified several meeting locations that could be utilized for workshops, such as the Solarize 101 and 201 events, including the Brookline High School Auditorium (est. capacity 800), the High School's MLK Room (est. capacity 100), the Coolidge Corner Library Meeting Room (capacity 100), Hunneman Hall in the Main Library (capacity 96), and the Selectmen's Hearing Room (capacity 95). All of these rooms have presentation capabilities.

❖ *Budget*

The entire \$2,500 Solarize Mass budget will be used for marketing and branding materials, including event flyers and sign-up sheets, posters in town kiosks, door hangers, and the like. Some other marketing ideas that are being considered but have yet to be determined are Solarize Mass Brookline t-shirts and buttons for canvassing and tabling volunteers, outdoor banners, and other such items that will help create a consistent and recognizable brand.

Media Outlet

The Town of Brookline's primary local paper is the Brookline TAB, which also has an online presence at www.wickedlocal.com/brookline. Other online media sources include the Brookline Patch (brookline.patch.com) and the commercial site www.brookline.com. The team will also submit press releases and program information to the reporters at the Boston Globe and www.boston.com who cover the Brookline area.

Permitting

To install a solar PV facility, an applicant needs both a building permit and electrical permit. The electrical permit is required for the installation of PV panels, while the building permit is required for any related construction needed to install the facility. The Building Department's Electrical Inspector is the primary contact for solar PV installations, and he would typically review both permits, creating a single point of contact for applicants. Flat roof systems require structural review to ensure the roof can handle the load of the ballast needed to weight the panel system. The Building Department is aware and supportive of the Solarize Massachusetts program, and will work with the team to ensure the permit application process moves as smoothly as possible.

There are a few occasions where an applicant may need to seek review from the town's Planning Board or Preservation Commission prior to obtaining a building permit. If a solar PV facility is to be located on a property in one of the town's local historic districts, the applicant would need to seek review and approval from the town's Preservation Commission

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prior to pulling permits from the Building Department. The Preservation Commission has drafted guidelines for solar PV facilities in local historic districts to provide clarity to the process (see Appendix B). Separately, if a property is located along one of the town's major thoroughfares (i.e. Harvard or Beacon Streets), and the proposed PV facility will be visible from the street, the town's Planning Board will need to review the installation at one of its sign and façade meetings, which are held typically every two weeks. The team's municipal representative Lara Curtis Hayes works closely with the Planning Board, the Preservation Commission and Building Department staff, and will assist applicants with information and permitting requirements.

The town is not aware of any other permits (i.e. Conservation Commission) that would be required in typical cases.

The following table indicates the pricing and estimated timelines for each permit. Information about all permits can be found online, either at www.brooklinema.gov/building for building permits or www.brooklinema.gov/planning for Planning Board or Preservation Commission review.

Permitting Component	Requirements	Review Timeline	Cost
Building Permit (Roof Mounted)	Construction documents	Up to 30 days, typically 2 to 3	\$20 per \$1,000 project cost, \$50 minimum
Building Permit (Ground Mounted)	Construction documents <i>(Zoning relief would be required for these facilities – they are only allowed in the Renewable Energy Overlay District, which has no residential properties at present.)</i>	Up to 30 days	\$20 per \$1,000 project cost, \$50 minimum
Electrical Permit	Wiring plans; if flat roof, structural review required	Up to 30 days, typically 2 to 3	\$20 per \$1,000 project cost, \$50 minimum
Preservation Commission	If not visible from any public way, low review requirements. If visible, existing and proposed conditions with angle, color details, etc.	30 to 60 days (estimated)	\$2 per \$1,000 project cost, \$50 minimum
Planning Board	If not visible from the major thoroughfare, low review requirements. If visible, existing and proposed plans of facility location and details.	15-30 days (estimated)	\$300
Community By-laws for yard signs	Non-illuminated, non-commercial public message signs allowed in all districts. If related to a specific event, must be removed within 7 days following event.	N/A	N/A

Permitting Component	Requirements	Review Timeline	Cost
Community By-laws for banners, signs, thermometers, etc. in public spaces	Non-illuminated, non-commercial public message signs allowed in all districts. However, if on a public building, review by Planning Board required.	30 days (estimated)	N/A

Exhibit 1. Community Permitting and Requirements Chart

Local Interest

A survey was sent out to local community members through a Google form to help gauge interest in the program by asking a series of five questions with a total of 339 responses received to date (from February 1-15, 2013). The questions were in part drawn from the surveys of past Solarize communities. The summary of the survey is below:

1. If Brookline offers its residents and businesses lower prices through group purchasing of solar equipment and installation, how interested would you be in finding out more about this program?
 - a. Very Interested - 63%
 - b. Somewhat Interested - 25%
 - c. Neutral - 7%
 - d. Not Interested - 5%

2. If Brookline can negotiate a price reduction of between 5% and 25%, how interested would you be in installing a solar photovoltaic system on your own residence or business?
 - a. Very Interested - 45%
 - b. Somewhat Interested - 34%
 - c. Neutral - 11%
 - d. Not Interested - 9%

3. Which option would be most attractive to you?
 - a. Installing solar with my own money or financing—to maximize long-term savings. - 36%
 - b. Installing solar with a lease arrangement so that I pay little or no money down—no risk, but slightly less savings for me. - 64%

4. If you would not be likely to participate in the program, is it because...
 - a. Open text responses

5. If you believe joining such a program would be a good thing for Brookline, would you also be willing to help make it happen (by helping other residents participate and thus get even better pricing)?
 - a. Yes - 31%
 - b. Yes, even if I could not get solar myself - 34%
 - c. No, though I do believe this would be a good program for Brookline - 33%
 - d. No, I do not believe this would be a good program for Brookline - 2%

The responses to Question #4 varied widely, but some of the concerns frequently raised included having a poor roof for solar, living in a condominium building, renting the building/dwelling unit, and believing the economics just don't work. Although some residents did not think they would be good candidates for solar, many still indicated support and offered to help with program outreach.

The Solarize Massachusetts Brookline team hopes to work with all interested residents to provide information about what financial options for solar are available, as well as to begin addressing the issues that arise around installing solar on condominium buildings.