

To: Solarize Massachusetts: Phase 2 Program RFP ID MassCEC 2012-SMP-02

From: Hopkinton Sustainable Green Committee

Date: 3/21/2012

We, the Hopkinton Sustainable Green Committee (HSGC) are applying to Solarize Massachusetts because we believe our town is particularly well suited to be successful in the program. As the highest point in Metrowest Boston, Hopkinton is uniquely situated to take advantage solar resources. Moreover, we have evidence of strong interest from residential, commercial and even municipal parties.

Facts about Hopkinton

Located at the intersection of Route 495 and the Massachusetts Turnpike, Hopkinton is best known as the start of the Boston Marathon. The population is approximately 14,500 residents with 4,500 housing units spread over 27 square miles. The elevation is 410 feet above sea level. A 700 acre development known as Legacy Farms will soon add an additional 940 housing units. Hopkinton uses an Open Town Meeting form of Government. The median family income as of the 2000 census was \$102,550. Solar Insolation Maps show Hopkinton receives on average 4.1 kW/hrs/square meter per day of irradiance. The town currently has experience with successful photovoltaic installations on the roofs of the High School, Fire Station and Police Station. In addition Hopkinton has an electric car charging station located conveniently in one of the industrial parks adjacent to Rt. 495.

Our team

The members of the Sustainable Green Committee represent a broad cross section of town. We have a lawyer, doctor, biochemist, energy consultant, realtor, HVAC contractor, programmer, industrial designer, storm water management expert, administrators, engineers and a restaurateur. All are committed to making Hopkinton a more sustainable place to live. The members are:

Andy Boyce, *Chairman*

Nancy Dourney, *Vice-Chairman*

Laura Connelly, *Treasurer*

Aubrey Doyle, *Secretary*

John Keane

Ria McNamara, *HSGC Public Relations*

Caroline McManus, *HSGC Public Relations*

Christiane Perrin

Frank D'urso, *Conservation Committee Representative*

Gino Spinelli, *Web master*

Margo Roman

Ken Parker

John Mosher, *Selectman's Representative*

Nancy Burdick, *School Committee Representative*

Environmental Groups

Hopkinton has a number of groups committed to protecting the environment. Several of the groups including the Conservation Committee and the Trails club, have been contacted by the Green Committee. They have indicated they will support the project and help market it to the town. In addition, HSGC will be contacting the High School Environmental Club, Lake Maspenock Preservation Association, Friends of Lake Whitehall, and Hopkinton Area Land Trust.

Political Groups

The Town Manager, Norman Khumalo is very enthusiastic about Solarize MA. He will be the liaison to all Town Committees and will communicate to them that no town funds will be required. His support will be particularly useful in maintaining lines of communication as the project goes forward.

HSGC will contact both our State Representative, Carolyn Dykema and State Senator, Karen Spilka to help legitimize our mission and spread the word.

Social Media

The HSGC will use various social media websites to communicate the Solarize program. Our “Solar Coach”, Andrew Boyce will design a Survey Monkey document to gather information on interest in PV installation. The survey will be designed to not only gauge interest but also gather some preliminary information, including the roof orientation, composition, age, pitch and warranty. Optionally, there will be a radio button that will allow us to confidentially collect addresses. This will be helpful for preliminary evaluations using Google Earth and Sketchup as well as PVwatts.

HSGC’s webmaster will create a Solarize Hopkinton Facebook page as well as a Twitter account and tweet announcements and milestones that have been reached.

Members of our committee will “chat up” Solarize on the “HopMoms” Yahoo discussion forum to garner interest.

Hopnews.com has a popular “Town Talk” discussion forum that can be exploited.

Using a free email newsletter site like MailChimp, a member will send out periodic reminders, updates, and other useful information such as financial institutions that specialize in solar financing.

Marketing and Outreach

If Hopkinton is chosen to participate, the Sustainable Green Committee will reach out to as many groups as possible. Broad communication about the benefits is essential to the success of Solarize.

Through email distribution lists, we hope to get the word out to both the residential as well as the business community.

Public Library – The town library has an alternative energy section with books and magazine subscriptions about energy efficiency, wind, solar thermal and solar electric systems. HSGC has

previously collaborated with the library and will work with them to create a Solarize Hopkinton poster and prominently link it with their alternative energy section. In addition, the library has a web site used by many in town.

Flyers will be placed at Colella's supermarket in downtown and other local establishments such as restaurants, pubs, town hall, recycling center and Southborough and Ashland MBTA stations.

Commonly, town events are announced with a large banner placed on the fence of the school tennis courts. This is a prominent location being at the school and adjacent to Rt. 85. We anticipate placing a large banner there to let residents know about the program.

Many residents are employees of EMC Corporation. HSGC will contact them as well as other businesses in town. They may have interest in participating as well as communicating to employees (from all Green Communities) the benefits of Solarize through their internal communications.

Some additional groups we anticipate will cooperate are:

Hopkinton Trails Club
Hopkinton Parent Teachers Association
Hopkinton Garden Club
School Committee
Board of Selectmen
Chamber of Commerce
Marathon Committee
School Administration

Media

The Green Committee will contact the appropriate traditional and online media including HopNews.com, Metrowest Daily News, Hopkinton Crier, Hopkinton Independent, and Hopkinton Patch. HSGC will ensure that announcements are placed and several prominent citizens/members of the committee have volunteered to write letters to the editors in support of Solarize Hopkinton.

HSGC maintains its own web site – www.HopGreen.com . Banner announcements and information will be placed front and center.

Town Website – www.Hopkinton.org. We will work with the town webmaster to communicate as much information as possible.

HCAM Public Access cable – A regular attendee of Green Committee meetings is currently producing a series of videos entitled “Energy Choices” that will run on HCAM. We will discuss with him the possibility of an episode that focuses entirely on Solarize MA.

We will reach out to current owners of photovoltaic and solar thermal systems to help spread the word. We have evidence based on a count of permits issued since 2005 that Hopkinton residences currently

have 28 photovoltaic and 6 solar hot water systems installed. There are likely more solar thermal installations but electronic records are limited. Current owners may be interested in expanding their systems. In addition, they would be excellent “ambassadors” in their neighborhoods.

Community and Neighbor to Neighbor events – We would have a booth at the following events: Polyarts (a popular craft fair held on the town common), Boston Marathon, Annual Green Up day, Shred Day and Hazardous Waste Day. Flyers would be handed out at the town beach, Park & Recreation events such as Soccer, Volleyball, Softball, etc.

If accepted into the Solarize program. We would place a “thermometer” graphic in a prominent town location showing the various pricing tiers reached – similar to a blood drive.

Community Education

Hopkinton has several meeting places large enough to host the Solar 101 and 201 events. The High School Environmental Club has expressed readiness to help with organization of such a meeting. In addition to the Middle School auditorium (seats 750), smaller venues are available such as the High School auditorium (300 seats), the Fire Station meeting room, and the Senior Center meeting room. All of the above rooms are equipped with audio and video capabilities.

It is anticipated there will be sites that will not be cost effective for PV and will be excluded from the Solarize program. Many will still be cost effective for solar thermal. The HSGC will work to educate those residents about the benefits of solar hot water and guide them to the various tax incentives as well as zero interest loans available through the NSTAR/Mass Save heat loan program.

In addition to the Solar 101 and 201 events, HSGC will work to educate the town about the importance of energy efficiency. Home Power magazine has calculated that for every dollar saved through energy efficiency improvements, four dollars can be saved on PV installation costs for the same offset. We will encourage residents and businesses to check out the Database of State Incentives for Renewable Energy www.DSIREusa.org to take advantage of various programs available.

Hopkinton’s permitting process

A building permit is required for the installation and inspection of the mounting system. Hopkinton follows the MA Building “stretch energy code” as well as the 2011 National Electrical Code. The town requires that the panel mounting system be designed to handle a snow load of 55 lbs. per square foot and wind speeds of 100 MPH. For a residential install, the permit fees are \$10 per \$1,000 of the estimated installation cost with a minimum of \$50. A separate electrical permit is required for the installation inspection of the wiring and costs \$50. For commercial installations, the permit fees are \$50 for the first \$10,000 of installation cost and \$18 for each additional \$1,000. The minimum fee is \$100.

At this time, Hopkinton does not offer a streamlined alternative energy permitting process but it is under active discussion. The process is not onerous and is easily navigated by experienced installers.

In addition to the town permits, for safety and proper billing, NSTAR requires a Net Metering application be submitted along with documentation that the solar inverter meets Underwriter Laboratories 1741 certification. Before NSTAR will install the net meter, proof of inspection by both the electrical and building departments is required. NSTAR also requires that an externally accessible, agency approved lockable shut-off be installed along with appropriate signage. Typically, photos of the signage and external disconnect are sufficient documentation.

Our designated solar coach has personal experience with each of the above permitting processes and will be able to educate program applicants. It is expected that the installer will take care of most of the permitting process.

Other interested Parties

Hopkinton has two historic districts - each with their own commission and rules. One is in downtown and includes many but not all houses around the common. The 2nd is along Rt. 135 in a section of town called Woodville. In both districts, PV arrays that are not visible from the street are automatically exempt. The Woodville commission cannot review either roofing materials or color and presumably could not argue against a nicely integrated installation.

The Conservation Commission has no jurisdiction over roof mount PV systems. For ground mount installations or trenching for conduits, if the work is at least 100 feet from a vegetated wetlands, 125 feet from a vernal pool or 200 feet from a perennial stream, it is exempt. If within these zones, the work would require either a Request for Applicability (a minor project) or Notice of Intent (major project). Don McAdams, the Conservation Agent will consult with property owners to ensure the proper path is taken.

Conclusion

Many people in town have expressed interest in putting a solar installation on their roofs. They all have questions. How much does it cost? How long will it last? How do I go about it? Will my lights stay on during an outage? The Solarize program will answer all of their questions, make it more affordable, accessible and simplify the process of choosing a vendor.

Thank for considering Hopkinton's application to the Solarize program. We feel there is a pent up demand for PV - demonstrated by the number of solar permits issued, the town's enthusiastic adoption of the stretch code and successful PV deployment on several town facilities.

Contact information

Norman Khumalo, the Town Manager will be the Municipal Representative.

Andy Boyce, Chairman of the Sustainable Green Committee will be the Solar Coach