

SOLAR ROOF STUDY COMMITTEE

May 22, 2013

MINUTES

Present: Betsy DeWitt, Neil Wishinsky, George Cha, Tommy Vitolo, Carla Benka, Sergio Modigliani, David Pollak, Jon Cody Haines, Helen Aki, MAPC

Staff: Melissa Goff, Dan Bennett, Tony Guigli

The minutes of April 24, 2013 were approved as amended.

Selectman DeWitt began the meeting by introducing newly elected Selectman Neil Wishinsky who will be taking over as the Selectman's representative to the committee. Helen Aki from the MAPC was also introduced to the Committee. Helen has been working with the Town on the regional solar initiative, and is interested in the work of the committee as something that the MAPC can either provide support to, or learn from when looking to help communities expand solar opportunities in their community. The MAPC plans on holding a workshop sometime this summer that the Committee may be interested in participating.

Melissa Goff updated the Committee on the various solar initiatives that are currently underway in Town. For the Solarize Mass program we have an installer, Solar Flair. They were the installer for the successful Arlington program last year. We had our Solar 101 last week, which had about 60 people in attendance. We will do a "Meet Your Installer Night" sometime mid- to late-June. Right now, they are just scheduling meetings with people to try to work out a marketing plan.

On the municipal side, the Town has received an initial proposal from Broadway on the town-owned roofs submitted for consideration under the regional program. Their initial proposal has been posted to the Committee's website for informational purposes. There is some concern about whether or not Town Meeting approval would be required in order to move forward with these projects, and there is some level of urgency as there are changes happening at the state level, which will impact the economics of these projects.

The Building Department was asked to talk about the current solar installations in town, the Public Health Building and the Putterham Library. The Public Health installation was done in 2007, and cost \$160K. Private fundraising and grants paid for the installation. The Putterham installation was done in 2010, and cost about \$50K. The Putterham installation has generated 18,967 KWH since it was installed. The contractor was responsible for working with the utility on setting up the interconnection. Dan Bennett mentioned that Town Hall was looked at as part of the MAPC program, but was deemed too small for a solar installation. Sergio noted that the design and engineering fees included in the Broadway proposal are quite significant, but there could be some design decisions up front that can make a roof more solar ready. Dan Bennett mentioned that the MSBA may not cover certain design decisions that may be made to accommodate solar. Tony Guigli noted that the Runkle projects does not have solar, but is still a MA CHPS building. There are a variety of elements that are available to achieve this designation, and they were able to do so within the confines of the project budget. The

Committee noted that the Devotion project may be the first project that could have solar readiness incorporated into its design. Carla Benka mentioned that removing equipment that may usually be on the roof in order to accommodate solar could mean that the equipment is inside of the building, which could mean that educational space would need to be sacrificed. David noted that sheltering this equipment from the elements could extend its life.

The Committee turned to the NREL's solar ready checklist. There seemed to be a different answer on some of the criterion depending on whether the roof was new or existing. The Committee discussed roof loads. A PV installation typically adds 15-20% to the load of the roof. The Health Department's panels were tilted further than the optimal level due to the wind load. The optimal tilt for PV panels is 32 degrees. David said that a structural analysis would need to be done not given today's building code. Would there be an expectation that a structural analysis would be required only for a roof replacement or what if mechanical equipment was being replaced? Betsy asked if there was a minimum amount of square footage that was required for a successful installation. Tommy Vitolo responded that it's not an easy question to answer.

Sergio noted that shading and zoning considerations noted in criteria number two are another way to examine this issue. He has reached out to Selectman Benka, Chair of the Zoning By-Law Committee to see if they have confronted this issue yet. Dan mentioned that 40A in the Zoning bylaw provides some protections for solar. Tommy Vitolo mentioned the zoning language for White Place could provide a similar path for this committee. Sergio was the author of the White place regulations and also mentioned the zoning changes in New York, like the ziggurat, that was intended to allow light amongst the skyscrapers.

Jon Cody Haines asked if the committee should weigh in on the checklist's criteria on solar thermal even though it's not specified within the charge of the committee. It was noted that there used to be a solar thermal installation on the pool, but it broke frequently. Although there is a stronger case for PV instead of solar thermal the committee agreed to consider the item listed in the checklist related to solar thermal. Jon asked what the committee thinks should be the end product. A checklist itself or required explanations when certain decisions are made that may impede solar. Does the committee want to lay out the kinds of buildings where it can be explored and if the building is viable the checklist is used? The committee discussed the impact of requiring that a roof be warranted for solar. Does it make sense to get this up front even if no solar is planned at the moment, or should that be dealt with when a solar project is under consideration? Who gets the checklist? The committee discussed the potential of including the checklist in the RFQ for a project. David said that that may be too specific, and may be unnecessary since the RFQ already addresses sustainability. The Building Commission and Building Department would adopt the checklist, or policy for solar readiness and this could be introduced at the concept design phase.

The Committee agreed to review the checklist further and provide comments that can be discussed at the next meeting. The next meeting was scheduled for June 19th at 5PM.

The meeting adjourned at 7:00 PM.