

Harvard Solar Garden Pilot Proposal

Summary

Harvard Solar Garden (HSG) desires to enter into a PILOT agreement with the Town of Harvard in order to establish a predictable and known tax liability for the lifespan of the project. To this end, HSG proposes that the PILOT be established as 4% of metered production credit, to be credited to a municipal electricity account. Using this approach, the benefit to the town will remain in proportion to the economic benefit generated by HSG, varying directly in proportion to electricity rates.

For HSG1, fully subscribed at 250 kilowatts, a PILOT of 4% translates into \$2,040 at current electric rates (\$0.17/kWh). Expressed as dollars per Megawatt, \$2,040 for a 250kW system is equivalent to \$8,160 per Megawatt, well above the median of PILOTs that have been established for systems of 1 megawatt and below. HSG2 will generate additional tax revenue once subscription is complete.

In addition to the proposed PILOT rate, HSG proposes a clause in the PILOT agreement that will allow the agreement to be superseded by any subsequent state legislation or regulation that grants community shared solar projects exempt or lowered local taxation treatment.

Rationale for PILOT rate

As the project was being planned, it was clear that a rent allowance to compensate the property owner (or the town, if municipal land was used) would be required. Fortunately, since orientation of such a project can be nearly optimal, there is a margin available between average efficiency of an on-site installation (assumed to be 93%), and the nearly 100% potential efficiency of a community system. The performance model assumed as much as 7% of metered production could be transferred to the property owner while giving owners production effectively equal to what on-site installations generate.

Once HSG determined that siting on municipal land was not feasible, the current Ayer Road property was located and leased with a rent factor of 3% for the property owner. The remaining 4%, worth \$8,160 per Megawatt at current rates, is available to fund a PILOT, while maintaining benefit for owners comparable to on-site installation.

Background

In 2008, the Massachusetts legislature enacted and Governor Patrick signed the Green Communities Act, a comprehensive piece of energy reform legislation promoting development of renewable energy, energy efficiency, “green communities,” and implementation of the Regional Greenhouse Gas Initiative (“RGGI”).

The Green Communities program offers incentives to municipalities to commit to efficiency and renewable technology. Up to \$10 million per year is available in technical and financial help to participating municipalities through the Green Communities Division of the Department of Energy Resources. Qualifying communities must adopt numerous provisions, including as-of-right siting for renewable or alternative energy generation, manufacturing or research and development in designated

locations and an expedited permitting process which shall not exceed one year from the date of the initial application for such facilities. “Green Communities” also must require all new residential construction over 3,000 square feet and all new commercial and industrial construction to minimize, to the extent feasible, lifecycle energy and water costs.

In November, 2010, Harvard voted overwhelmingly to adopt the required bylaw amendments and to apply for Green Community Status, joining 46 other Massachusetts cities and towns as early adapters, and in 2011 the town received a \$141,200 grant to be spent on projects that reduce fossil fuel usage.

In March, 2011, Harvard applied and was selected for Solarize Mass, a program to make PhotoVoltaic (PV) Solar available on a reduced cost basis. During the ensuing six months, 75 Harvard residents purchased more than 400 kW of solar panels. In fulfillment of the requirement for expedited permitting, Harvard established flat-rate permit costs of \$125 for solar projects, plus \$36 per electrical inspection.

Even as 75 residents were taking advantage of Solarize, nearly 50 residents who wanted to participate found they could not, because of site or structural limitations. The Harvard Solar Garden project was established as “community shared solar” to enable these residents to also benefit from solar electricity generation.

Other papers have been published which document the difficulties encountered siting and permitting such a system, despite legislation (MGL 40A Section 3) that says:

No zoning ordinance or by-law shall prohibit or unreasonably regulate the installation of solar energy systems or the building of structures that facilitate the collection of solar energy, except where necessary to protect the public health, safety or welfare.

Harvard’s building inspector denied permits on two different sites, the first denial upheld by ZBA. Project volunteers were reluctant to sue for compliance. Instead, with cooperation from the Planning Board, bylaw amendments were passed at a Special Town Meeting in August, 2012, adding two C-District properties to the Large-Scale PV Solar Overlay District that had been created as part of the Green Communities vote, and permits were issued.

Care was taken by the Planning Board, in conjunction with community solar volunteers, not to allow siting on property that had potential for development to a higher-value use. The tax revenue potential of the properties would be preserved by causing solar to be sited on otherwise unusable acreage away from road frontage.

After being denied siting on the first property, project proponents asked to be allowed to site the project in the Overlay District (the 10-acre Depot Road municipal property that hosts Highway Department operations and the transfer station). It was quickly determined that, without relocating a significant portion of current operations, no more than 150kW of PV Solar could be constructed, and even that would be questionable (feasibility and cost) because of uncertain status of the former landfill. Not only did the addition of Ayer Road properties to the overlay district enable construction of the community solar facility, the project would put the town back in compliance with Green Community covenants requiring as-of-right siting for renewable energy projects.