

ARTICLE 12ARTICLE 12

Submitted by: Select Board

Warrant Article authorizing the Select Board to enter into Solar Power Purchase Agreements (PPAs) with other parties to install, own and operate solar systems on several Brookline properties and sell the power to the Town.

To see if the Town will vote to authorize the Select Board as follows:

a.) Upon terms and conditions in the best interest of the Town, to enter into 20-year solar Power Purchase Agreements (“PPAs”) on or before December 31, 2021 for rooftop solar photovoltaic system installations on Town properties listed by Assessors Parcel ID in Table A below (the “Properties”); and

b.) As part of the PPAs referenced above, to enter into Payment in Lieu of Taxes (PILOT) Agreements in lieu of real and personal property taxes in accordance with General Laws Chapter 59, §38H (Acts of 1997 Chapter 164, Section 71(b)), as amended) and the Massachusetts Department of Revenue (DOR) Guidelines published in connection therewith.

Table A – Town Properties for Rooftop Solar Photovoltaic System Installations

<i>Assessors Parcel ID</i>	<i>Address</i>	<i>Property Name</i>
048-13-00	345 Harvard Street	Coolidge Corner School
245-01-00	50 Druce Street	Runkle School
202-09-00	115 Greenough Street	High School
441-43-00	870 Hammond Street	Municipal Service Center
277-01-00	100 Eliot Street	Heath School
194-10-11	46 Tappan Street	Kirrane Pool/Gym/UAB Building

Or take any other action relative thereto.

PETITIONER’S ARTICLE DESCRIPTION

The Town of Brookline has committed to prioritize planning to achieve zero greenhouse gas emissions by 2050, Town- and community-wide. This Warrant Article seeks authorization for the Select Board to enter into solar Power Purchase Agreements (PPAs) on six properties. Over the next several years, the Town anticipates potentially installing solar systems via PPAs on the following roofs:

<i>Proposed Roof Locations for the Solar Systems</i>	<i>Size (Estimated DC kW)</i>
Coolidge Corner School	292
Runkle School	174
High School	146
Municipal Service Center	292
Heath School	217
Kirrane Pool & Gym	263
TOTAL	1,384

Overview: There are typically two principal paths available to the Town for acquiring solar energy systems. The first path is direct ownership: the Town purchases a solar system and owns and operates it, using the electricity and retaining its “environmental attributes” (known as Renewable Energy Certificates “RECs”). The second option is to use third-party financing and contract for a Power Purchase Agreement (PPA) with a company that owns and operates the system and sells the electricity back to the Town (through so-called “net metering credits,” which appear as reductions on the Town’s electricity bill). Both approaches have advantages and disadvantages, and different implications for financing the systems’ capital cost and meeting the Town’s climate-neutral goal.

Direct financing and ownership allows the Town to use the energy produced and retain ownership of the projects’ RECs. Using this approach to procure and install solar systems, the Town would need to raise or allocate funds (e.g. through a bond offering) to cover the projects’ costs. At approximately \$3.15/watt installed cost¹, the six proposed solar locations would cost about \$4.5 million. As a municipality, the Town cannot benefit from certain investment credits and incentives available to private tax equity investors, such as the solar Investment Tax Credit (ITC) and accelerated depreciation. However, the Town could participate in the Commonwealth’s current Solar Massachusetts Renewable Target (SMART) program, but under that program would not own the RECs produced with the electricity from the solar systems.

Solar Massachusetts Renewable Target (SMART): By participating in the SMART program (either under the recommended PPAs or via direct ownership), the Town is helping to meet the State’s Renewable Portfolio and Clean Energy Standards (RPS and CES). However, as is required when participating in the SMART program, the electric utility company — not the Town — owns the RECs. In this case, the Town cannot “count” SMART RECs toward its emissions reduction goal because the RECs are counted by the electric utility toward the RPS and CES; for the Town to count them toward its own goal would be “double counting.” To achieve greenhouse gas reductions within the Town’s operations, if participating in the SMART program, the Town would need to purchase the equivalent amount of RECs on the market.

¹ Memorandum regarding Solar Pricing from Cadmus (the Town’s solar consultant), dated 3/18/2019

Alternatively, the Town could forgo SMART incentives, and then could own and retire the RECs from the market. In this case, as noted, the Town would need to (1) pursue a direct ownership model (not under SMART), or (2) use a third-party financing model in which the Town is specifically entitled to the RECs through the contracting arrangement.

Third-party financing with a PPA needs no capital investment from the Town, and does not cost the Town anything to maintain and operate the projects. With each PPA, the Town makes regular, fixed-rate energy payments (for the length of the contract), at a price per kilowatt-hour stipulated in the PPA.

This Warrant Article is seeking authorization for the Select Board to enter into solar Power Purchase Agreements at the six designated sites, for the following reasons:

- 1) The Town of Brookline has committed to prioritize planning to achieve zero greenhouse gas emissions by 2050, Town- and community-wide. The energy grid and buildings are important sectors for climate action. Substituting fossil fuel electricity with renewable energy through the installation of solar systems on Town buildings is an important step in achieving the Town's greenhouse gas reduction goals.
- 2) The PPAs give the Town a timely, no-cost path forward with a vendor/investor for a major group of solar installations. The PPAs framework has been pre-negotiated by PowerOptions, a non-profit energy-buying consortium, on behalf of municipal and other participants.² The pricing methodology used is transparent and consistent.
- 3) The PPAs are designed to take advantage of the incentives offered through the Commonwealth's SMART program, as well as the federal solar ITC and rapid depreciation.
- 4) By participating in the SMART program through these PPAs, the Town is helping to meet the State's Renewable Portfolio and Clean Energy Standards (RPS and CES). Because greenhouse gas emission reductions do not have a geopolitical boundary for environmental impact, participating in the SMART program is a meaningful form of climate action.
- 5) There are advantages to moving forward with these PPAs now, as both the SMART incentives and the ITC decline over the next few years—with a corresponding increase in PPA prices. That is, there may be an opportunity cost to waiting.
- 6) A 20-year term for the PPAs fixes the Town's energy cost for the term, insulating the Town from market volatility for the quantity of energy produced.
- 7) While other solar procurement approaches might have advantages, they have not yet been explored in depth; a direct ownership approach would require a funding process

² Public entities may participate in the PowerOptions solar PPA program without conducting individual procurement (MGL Chap. 164, Sec. 137).

that would take, at minimum, several years. Until such options can be explored and analyzed, it is unknown whether they might be more or less advantageous than implementing these PPAs.

- 8) Until the Town further explores options for direct ownership and its feasibility by site, an *immediate* alternative to these options is the recommended PPAs.
- 9) PPAs can allow the Town, at one or more points during the term, to buy out the contract and own the system after a minimum holding period (usually seven years, which is the time an investor needs to realize fully the value of the tax incentives). This buy-out provision—once it is examined by the Town—may be a way for the Town to acquire rights to the RECs. This provides the Town with critical optionality in the future.
- 10) These PPAs would apply only to the six roof locations for which designs have been completed.³
- 11) The PPAs in no way prevent the Town from considering other approaches to solar in the future, and in fact provide potential flexibility with these six solar projects, given the buyout provision.

If Brookline contracts with a third party under the PPAs, the Town will enter a Payment In Lieu Of Taxes (PILOT) agreement with the Provider. This provides cost certainty over the term while capturing a fair value that reflects comparably to personal property tax.

SELECT BOARD'S RECOMMENDATION

ADVISORY COMMITTEE'S RECOMMENDATION

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³ Two of these projects—the Heath School and the Municipal Service Center—may end up not being included, depending on the CIP roofing schedule.