



# *Town of Brookline*

## *Massachusetts*

**Department of Planning and  
Community Development**

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**Alison C. Steinfeld**  
Director

To: Brookline Select Board

From: Kara Brewton, Economic Development Director

Re: **Solar Panel Power Purchase Agreement: Letter of Intent & Associated Materials**

Date: August 5, 2020

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### **Summary**

In fall of 2019, Town Meeting voted to authorize the Select Board to enter into a 20-year Power Purchase Agreement (PPA) and related documents with Solect Energy, a solar power developer, which effectively permits the use of several municipal rooftops in exchange for a cheaper electricity supply price. Town staff<sup>1</sup> has negotiated the PPA contract and are now recommending the Select Board sign the PPA for the Ridley School, Runkle School, Brookline High School, and the Kirrane Aquatics Center. As shown on the attached Tables, we<sup>2</sup> estimate a first year savings of approximately \$32,900.

In order to have a better chance of this PPA agreement including more favorable state financial incentives (and therefore a more favorable electricity supply rate for these properties), I am requesting the Select Board vote to:

Sign a *Letter of Intent* with Solect Energy Development LLC, related to installing and maintaining solar panels for up to 20 years at the following properties: Brookline High School (115 Greenough Street), Kirrane Aquatics Center (46 and 60 Tappan Street), Florida Ruffin Ridley School (345 Harvard Street), and Runkle School (50 Druce Street).

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<sup>1</sup> Negotiations with Solect included Kara Brewton, John Buchheit, and Dave Geanakakis. Charlie Simmons was also a lead in shaping the PPA, gathering information and plans, and coordinating site details with Solect. The Renewable Energy working team also provided staff technical advice, which significantly improved the technical terms of the PPA contract in the Town's favor; this group primarily included Scott Englander, Willy Osborn, Blake Cady, David Lescohier, and David Lowe.

<sup>2</sup> Comments, edits, financial discussions, and the Payment In Lieu of Taxes (PILOT) included Dave Geanakakis, Gary McCabe, Jeana Franconi, Justin Casanova-Davis, Melissa Goff, Dan Bennett, and Matt Gillis. Site analysis, securing grant funds, and utilizing third-party consultant technical review by Lara Curtis-Hayes and Maria Morelli.

This Letter of Intent (LOI) would not lock us into any agreement, but does formalize the Town's intent to enter into an agreement with Solect at the fixed electricity PPA rates indicated in the attached Table 1.

I am working with the Town Administrator's Office to schedule a Select Board public hearing on September 8th, hopefully followed by a formal vote to enter into a Power Purchase Agreement and related documents including a License and PILOT Agreement for these four sites. For your early review, attached is a final PPA and License agreement; please email me at [kbrewton@brooklinema.gov](mailto:kbrewton@brooklinema.gov) with any questions **by August 19<sup>th</sup>**. The Planning & Community Development Department will mail notices for this Select Board hearing to abutters within 300' of each property ahead of time for this public hearing, similar to our practice with past solar panel proposals. We will also post plans and specifications about the proposed installations by August 21<sup>st</sup> at <https://www.brooklinema.gov/1467>.

### **Considerations, Risks & Alternatives**

#### *Greening the Region; not the Town*

Power Purchase Agreements are a common method for Massachusetts municipalities to create regional, renewable solar energy. The solar power developer is responsible for the engineering and other related soft costs, permitting, acquisition and installation of all the equipment, incentive management, maintenance, and reporting of data. The municipality provides a license or lease to the developer for the solar panels to be installed and in exchange purchases the energy supply that the solar panels generate at a lower cost from the developer. The developer sells the Renewable Energy Credits (RECs) for the installation to the general market.

Installation of these solar panels does not equate to the Town's electricity consumption becoming greener unless we also decide to purchase additional RECs equivalent to the energy supply we are purchasing from Solect. As shown on Table 2 (attached), the additional cost of purchasing these RECs is still well below the anticipated savings. As noted in the footnote of Table 2, REC prices have increased significantly in the last year as anticipated large renewable energy projects (especially wind projects) have been delayed in the region.

Whether or not the Town decides to purchase the additional RECs, the PPA solar installations will add renewable electricity to the regional grid.

#### *Electricity is a Commodity*

The near term and long term predictions of the energy supply market, renewable credit market, and associated incentives and regulations are unknown. Hopefully an extreme example, the impacts of COVID-19 in 2020 resulted in a drastic reduction of residential energy prices from January to July. Our energy broker for our aggregation program (Good Energy), and consultant for municipal energy purchasing (Bay State) both anticipate those energy prices will increase again this coming January.

Pre-COVID, many energy consultants included assumptions in financial forecasts increasing somewhere between 1 and 3% per year. If that continues to be true over the next 20 years, the Town's savings will effectively increase every year as our PPA energy supply rate remains fixed. However, there is a risk that the energy supply price we are able to get on the market (usually for a couple years at a time) may dive

below this fixed rate at some point in the future (see Table 3). This risk is attenuated by the following factors:

- The PPA contract explicitly allows the Town to leave the contract after 7 years, and periodically after that time.
- Both parties also have the ability to renegotiate the contract with each other at any time.
- The energy being purchased under the PPA contract is a small fraction of the Town's overall energy use.

### *Alternatives*

Alternatives to entering into a PPA with Solect include direct ownership, not installing solar panels, and finding other ways to generate renewable energy. Our third-party reviewer for this project, CADMUS, has consistently estimated that the long-term financial savings would be greater to the Town by entering into a PPA in lieu of developing and maintaining our own solar panels. Additionally, installing solar panels on our own would require up front capital costs currently not identified. In this scenario we would be responsible for all maintenance and repair for these sites, which would add financial and operational uncertainty to the Town.

The Town could decide to not install solar panels at all, in which case we would not be utilizing the "rooftop real estate" we have to help the region grow its renewable electricity supply. Finally, we could instead of signing a PPA now, wait and see if other renewable energy creation becomes more viable (e.g., solar canopies over municipal parking lots, wind generation, etc.) Following more than 10 years of study and analysis, installing solar panels through a PPA for these four sites remains the most feasible and cost effective for the Town.

### **Introduction to PPA Negotiated Contract Terms**

To date, we have negotiated terms that give the Town more control prior to project installation and align the contract with Brookline's policies and practices such as insurance requirements and screening/fingerprinting contractors that enter school properties. We have also added more flexibility in the amount of time the Town has to respond when there's an issue with the solar panels. Overall, we have significantly reduced our exposure to risk. Additional specifications that we have added to protect the Town's interests include:

1. During construction:
  - a. Solect's roof contractors must be certified with our roofing materials manufacturer.
  - b. The Building Department is able to approve any proposed modification of the project.
  - c. Further protections for the Town if hazardous materials are encountered during roof installation or accident during construction.
2. Provisions during operations:
  - a. Solect reporting of data to the Town will include access to historical production data, at least at a daily frequency.
  - b. The Town may seek validation from Power Options about any increased net costs due to a change of law that increases the Providers net prior to PPA price change.
  - c. Limiting the cost exposure that would be passed to the Town regarding potential future shadow impacts on the solar panels to a 50% increase of the PPA rate any single site (given this siting and adjacent conditions, shadow impacts are highly unlikely to occur, but those risks are tabulated in the last column of Table 1 attached).

3. Provisions related to the Town's options to purchase the system:
  - a. Solect will train Town staff to use and operate the system and be available for questions 90 days after we purchase either by early purchase option or at the end of the term.
  - b. Further definition of using a third party appraiser to determine the fair market value and flexibility of time on behalf of the Town to execute on purchasing the equipment at the end of the term.
4. Provisions related to the end of the system's useful life and/or end of contract term:
  - a. Decommissioning assurance funding two years prior to the end of the contract so that we know there's funding to safely remove the equipment in case Solect does not adequately do so.
  - b. More defined timetable of when they have to remove equipment when the project ends.
  - c. Changed the official end date of agreement as there were many provisions that are after the 20-year term is over that we still want to be in effect by a binding agreement.
  - d. Removed the requirement waiving our right to a trial by jury.