Alternative Energy Committee

Presentation to Board of Selectmen

Summary of Warrant Article for Authorization to Lease Town Assets for Solar Energy Arrays

March 26, 2020
Contents

Objective: Present the final proposed language to the Board of Selectmen regarding authorization to lease Town Assets for siting solar energy arrays

Agenda:

• Solar update

• Original list of sites to consider

• Solar timing issues

• Proposed language of warrant articles
  • Town sites
  • Schools

• Questions
### Solar update – Savings since September 2017

<table>
<thead>
<tr>
<th>PRODUCTION</th>
<th>SAVINGS</th>
<th>CO₂ REDUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,544K kWh</td>
<td>$150K+</td>
<td>1,920K LBS</td>
</tr>
</tbody>
</table>

**PRODUCTION**
- 1,544K kWh

**SAVINGS**
- $150K+
  - AVERAGES MORE THAN $4,500 PER MONTH

**CO₂ REDUCTION**
- 1,920K LBS
  - EQUIVALENT OF PLANTING 14,500 TREES

**WOULD SATISFY THE ANNUAL ELECTRICITY NEEDS OF 205 HOMES**

**PRODUCTION EQUALES**
- 1,544K kWh

**SAVINGS EQUALES**
- $150K+
  - AVERAGES MORE THAN $4,500 PER MONTH

**CO₂ REDUCTION EQUALES**
- 1,920K LBS
  - EQUIVALENT OF PLANTING 14,500 TREES
Solar Update: More savings with NO upfront capital

**Town Site**
- EXAMPLE: Old Landfill
- Town sites
- Permission to lease
- Ch. 30B procurement
- No upfront capital

**Public Site**
- EXAMPLE: MBTA Canopies
- Long-term contract signed by Town
- Developer builds solar

**Private Site**
- EXAMPLE: Commercial Building Rooftop
- Long-term contract signed by Town
- Developer leases land

Need to compare economics of town sites versus private and public sites

Price Savings = ?
Lease Cost = $0
PILOT = $0

Price Savings = ?
Lease Cost = ?
PILOT = ?

Price Savings = ?
Lease Cost = ?
Property Taxes = ?
Original list of sites to consider identified March 10

- Deer Hill / Osgood
  - Existing backup generation site (leased diesel units)
  - Could be used for battery storage facility (active only in emergencies)

- Cohasset High School/Middle School Roofs
  - Need to renew Town approval given in 2011
  - Roof is approaching end of life
  - Timing with tax credits is important

- Police/Fire Department
  - Existing backup generation site
  - Potential storage site
  - Could put solar on roofs

- Senior Center
  - Existing site for backup generation (gas-pipeline)
  - Could be used for battery storage

Have added DPW site for reliability and potential expansion
### Timing of tax incentives

<table>
<thead>
<tr>
<th>Global Factors</th>
<th>Federal Subsidies</th>
<th>State Solar Support</th>
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<tbody>
<tr>
<td></td>
<td><strong>12/31/2019:</strong> 30%</td>
<td>SMART 2.0 (2020)</td>
</tr>
<tr>
<td></td>
<td><strong>By 12/31/2020:</strong> 26%</td>
<td><strong>Net Metering Cap for SMART 2.0:</strong> 1,600 MW</td>
</tr>
<tr>
<td></td>
<td><strong>By 12/31/2021:</strong> 22%</td>
<td><strong>Green Communities</strong></td>
</tr>
<tr>
<td></td>
<td>After 2021:</td>
<td>MassCEC Funding</td>
</tr>
<tr>
<td></td>
<td>0% Residential</td>
<td>MAPC Funding</td>
</tr>
<tr>
<td></td>
<td>10% Grid-scale &amp; Commercial</td>
<td>MVP Action Grant (Build off Solar)</td>
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<tr>
<td>COVID-19 Anticipated Glut of Solar Arrays on Market</td>
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<table>
<thead>
<tr>
<th>Year</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>Post-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Battery/Microgrid Support:</strong> DOE incentives; state incentives</td>
<td><strong>Alternative Energy Committee</strong></td>
<td><strong>Town of Cohasset Massachusetts</strong></td>
<td><strong>Massachusetts</strong></td>
<td><strong>SMART 2.0 (2020)</strong></td>
<td><strong>1,600 MW</strong></td>
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Timing to solicit bids for solar energy arrays

Town Approval
- Approval at Town Meeting
- Authorization to Lease
- Town Property

Prepare
- Obtain BOS/School approval to proceed with RFP
- Review and update old RFP Materials
- Develop invite list and Issue RFP

Issue RFP and Award
- Review bids
- Award contract
- Negotiate/finalize terms

Permits/Approvals
- Permit approvals
- Siting board
- BOS/School Sign Contract

Construct Solar Array
- ITC by 12/31/2020
- SMART 2.0 queue position before 1,600 MW filled
- Obtain net metering
- Interconnection agreement
- Commence construction

2020 | 2021 | 2022
Proposed Warrant Language -- Town Sites

Lease of Town Property for Siting of Solar Power Electric Generation Facility

To see if the Town will vote to authorize the Board of Selectmen to: (i) lease certain roofs of Town-owned buildings and other portions of the building real estate for up to and including twenty (20) years for the development and operation of a solar (PV) power electric generation facility for purposes of reducing the Town’s energy costs to the maximum extent feasible, by means of the provision of electrical energy via a net metering agreement or to supply electrical load on the site directly, together with (ii) permission to grant a non-exclusive easement for reasonable access for the purpose of constructing, installing, operating, and maintaining the solar energy array, and (iii) permission to grant an easement for the duration of the solar energy array lease to National Grid or a third party for the benefit of the Town of Cohasset as necessary for the purposes of providing electricity and telecommunications to and from Town-owned property, for the following Town-owned sites:

1. The DPW Transfer Station identified as Town of Cohasset Assessors map/parcels B4-05-048, B4-06-025B, and B4-06-003, consolidated into a single lot currently known as B4-05-048 per plan #648-96-2016 with access located at 81-91 Cedar Street; and

2. The Police and Fire Stations identified as Town of Cohasset Assessors map/parcels F5-27-057, located at 62-64 Elm Street in sequential order (currently recorded as 44 Elm Street), Cohasset, MA 02025; and

3. Willcutt Commons identified as Town of Cohasset Assessors map/parcel D5-15-002 with access located at 91 Sohier Street, Cohasset, MA 02025;

Or to take any other action related thereto.
Proposed Warrant Language -- School Sites

Lease of School Property for Siting of a Solar Power Electric Generation Facility

To see if the Town will vote to authorize the Cohasset School Committee to (i) lease the following school building roofs and other portions of the school building real estate for up to twenty (20) years, for the development and operation of a solar (PV) power electric generation facility for purposes of reducing the Town’s energy costs to the maximum extent feasible, by means of the provision of electrical energy via a net metering agreement or to supply electrical load on the site directly, together with (ii) permission to grant a non-exclusive easement for reasonable access for the purpose of constructing, installing, operating, and maintaining the solar energy array, and (iii) permission to grant an easement for the duration of the solar energy array lease to National Grid or a third party for the benefit of the Town of Cohasset as necessary for the purposes of providing electricity and telecommunications to and from Town-owned property, for the following Town-owned sites:

1. Cohasset Middle/High School identified as Town of Cohasset Assessors map/parcel E7-41-001 located at 143 Pond Street, Cohasset, MA 02025; and

2. Deer Hill School identified as Town of Cohasset Assessors map/parcel D6-42-026 and D6-42-042 located at 208 Sohier Street, Cohasset, MA 02025; and

3. Joseph Osgood School identified as Town of Cohasset Assessors map/parcel D6-40-002 and D6-42-025 located at 210 Sohier Street;

Or to take any other action related thereto.
Questions