Cape & Vineyard Electric Cooperative, Inc.
Barnstable County
9.11.15

John C. Checklick, CVEC President
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Cape & Vineyard Electric Cooperative, Inc.
Municipal Net Metered Power

Cape & Vineyard Electric Cooperative
Past - Present - Future

- Three PV Initiatives totaling 28MW are now producing power
  - The largest block of Cooperative PV power in New England
  - At end FY15, with projects still in development, distribution of cashed out net metering benefits was $2,250,000
- Potential Future PV Initiatives - based on 3 previous initiatives' successes
- Battery Back-up - CVEC currently awarded a $1.5 million grant for a battery back-up system at DY High School Regional Emergency Shelter
- Potential Future Battery Initiatives
- Cooperative participation with Future Generation Wind with fixed cost PPA
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CVEC Benefits

- CVEC provides PV installations at no capital cost to participating towns.

- The low PPA costs CVEC negotiated are fixed for 20 years, which is highly uncommon in other similar contracts. Savings from a fixed PPA of $0.07 vs escalating at 2% over 20 years = $664,000 for Chatham’s 1.8MW PV installation – the average size PV system in Round 1

- The Cooperative allows towns to benefit from distributed generation beyond the state’s per town limit of 10MW.

- The Cooperative provides optimization of PV installation location. For instance, some of the power from 6 CVEC capped landfill projects developed to capacity is now shared with Barnstable County through the Cooperative.

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The “Ask”

- In 2010 the CVEC Board voted to avoid the Administrative Operational Adder on the 8 Round 1 projects

- In 2011 the Board voted to cover costs for monitoring and billing, etc. with a per kWh Administrative Operations Adder on the Round 2 projects; $0.01 for members and $0.015 for non-members added to the PPA cost

- Without an Adder on the 8 Round 1 projects, CVEC recognizes it can’t maintain its services for all participants at the current level

- In the interest of fairness and to continue services for all, in 2015 the CVEC Board voted to propose an Adder on the Round 1 projects, similar the Adder on its other projects.
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CVEC Operations Management Services
In addition to leading further PV and Battery development for Region

- Maintain Schedule Z database for all projects - host & offtaker (needed for accurate distribution of net metering credits)
- Calculate monthly net metering credit activities: Expense, Revenue, Net
- Provide professional third party annual audit reports
- Provide annual reports; showing annual costs and net benefits
- Verify achievement of production expectations (GAO) and assure shortfall compensation
- Interface with Utility and PV system owner to assure proper compensation and proper maintenance and repairs.
- Provide annual reports to Mass DOER
- Provide legal services associated with management of systems
- Provide assistance with tax assessment, insurance, emergency response, etc.

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The Adder to Barnstable County in dollars and cents

<table>
<thead>
<tr>
<th>Description</th>
<th>Net Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year One Estimated Net Benefit from R1, R2 and Future Generation Wind to</td>
<td>$52,477</td>
</tr>
<tr>
<td>Barnstable County as Offtaker</td>
<td></td>
</tr>
<tr>
<td>Apply adder of $0.01 per kWh to R1</td>
<td>$3,392</td>
</tr>
<tr>
<td>Adjusted Estimated Net Benefit from R1, R2 and Future Generation Wind to</td>
<td>$49,086</td>
</tr>
<tr>
<td>Barnstable County as Offtaker</td>
<td></td>
</tr>
<tr>
<td>Percentage Year One Income Reduced</td>
<td>6.46%</td>
</tr>
</tbody>
</table>

*** The NMC used in calculations of $0.159 will adjust up or down over the life of the project, with a net rise expected as the cost of electricity is expected to rise.
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The Need in dollars and cents

CVEC FY16 Annual Income and Expense

<table>
<thead>
<tr>
<th></th>
<th>Annual Income from R2 and FoeW adders</th>
<th>Annual Budget</th>
<th>Net Income (Loss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected TOTALS</td>
<td>$162,348</td>
<td>$352,815</td>
<td>$190,466</td>
</tr>
</tbody>
</table>

An adder on all Round 1 projects will provide an approximate annual revenue of $197,637.

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Assurances

- CVEC will revisit the adder on Round 1 at year three to determine whether it is recommended that the adder be discontinued, continued, or reduced