

National Community Solar Partnership



Cape & Vineyard Electric Cooperative Bulk Purchasing Power for Cape Cod Communities

A total of **17MW of shared solar** now serves municipalities, water districts and school districts of Cape Cod and Martha's Vineyard through a unique community and nonprofit driven approach. Through **bulk procurement and purchasing**, Cape & Vineyard Electric Cooperative (CVEC) provides lower-cost financing for large scale solar PV projects without affecting a municipality's debt obligations, drives down electricity costs for the participating municipalities and school districts, and aims to stabilize electric rates for all Cape Cod and Martha's Vineyard ratepayers.

Regional collaboration in Cape Cod and Martha's Vineyard is streamlining procurement, coordinating installation and driving down the costs of solar energy for communities.

As an electric cooperative with a total of 28.5MW of solar in its portfolio, CVEC's mission is to develop and/or own renewable energy generation facilities and procure or sell long-term electric supply or other energy-related goods and services at competitive prices to member communities and their customers. Twenty members from municipalities and counties sit on the board of the Cooperative. Each municipality is a subscriber to the Cooperative, some hosting multiple arrays within their jurisdictions and some participating as offtakers for the benefits. CVEC was created to provide the municipalities of Cape Cod and Martha's Vineyard a way to work together to integrate clean, renewable energy as part of a more sustainable Cape Cod and Martha's Vineyard.

CVEC led three phases of bulk procurement from 2010-2016. They were able to reduce soft costs, as each bundled procurement required only one Request for Proposal (RFP) and one contract negotiation for multiple sites. A total of 32 installations were completed, ranging from large PV arrays covering entire capped landfills, to smaller rooftop arrays on public buildings.

As a nonprofit cooperative, CVEC was unable to take advantage of tax incentives, so it was crucial to work with third parties to utilize the federal tax credit. A third party installs, owns, operates, and maintains the arrays through a **Power Purchase Agreement (PPA)**. The towns that own the land on which the arrays are installed are the beneficiaries of the net metering credits and pay a fixed dollar/kWh rate to the vendor



CAPE & VINEYARD ELECTRIC COOPERATIVE, INC.

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for the electricity. The towns are not required to purchase the array outright, but have the option, and are not responsible for maintenance for the 20-year PPA. The Cooperative worked with three third party vendors to install the systems: ConEdison Solutions, American Capital Energy, and G&S Solar.

Key to making the project financially viable were the Massachusetts solar incentives, designed to meet the Commonwealth's aggressive Renewable Portfolio Standards. The Solar Renewable Energy Certificates (SRECs) and federal tax incentive went to the third party vendor, helping to drive down installation and kWh costs. The participating municipalities and districts were the recipients of the net metering credits, providing an incentive and cost savings on their electric bills.

CVEC also helps facilitates the transfer of net metering credits from one town to another. For example, the Town of Harwich hosts a large landfill array and cannot use all of the net metering credits generated. CVEC sends the net metering credits to Provincetown, which does not have the acreage to host large arrays. Through **revenue sharing** via the cooperative, Provincetown can then send back the savings to Harwich. Since 2015, CVEC's solar projects have saved Cape Cod towns and school districts \$3M/year and required no capital costs.

Lessons Learned

Anticipate Shifting Incentives

Massachusetts and federal incentives are shifting, providing a source of difficulty for collaborative procurements by nonprofit organizations. With the SREC cap met in Massachusetts, there is uncertainty about future financing incentives and viability of projects. A major incentive for third party developers to partner with a nonprofit organization is that they receive the SRECs. Because of these shifting incentives, opportunities have fallen through for the Cooperative. Anticipating these shifts to the degree possible will help to make financing collaborative procurement projects more feasible in the long run.

Set Expectations for Maintenance and Performance

With numerous towns involved in many arrays, it is key to have a common understanding of the ongoing maintenance required. Installers, developers, the participating municipalities, and the Coop should have a common understanding of maintenance required and the level of energy production expected. Many of the towns are eager to harness as many kWhs as possible, which calls for the highest efficiency from the systems, but it does not serve the contractor's bottom line to make frequent expensive repairs to only modestly improve performance. Developing a common expectation of energy production, which types of repairs warrant a visit by a contractor, and an understanding of the maintenance required could lead to better relationships.

Working with Multiple Jurisdictions

On the Cape & Islands, town meetings and regular changes in elected town officials are the norm. With each new opportunity, CVEC staff spend countless hours educating the new governing boards. It is hoped that, as the Cooperative continues to return to participating towns with similar opportunities and contracts, governing bodies will streamline their processes and avoid multiple costly legal reviews.