

Annual Report for Fiscal 2022

with Audited Financial Statements

CVEC | Cape & Vineyard Electric Cooperative, Inc.

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FROM CVEC'S EXECUTIVE DIRECTOR

Dear Members, Participants, and CVEC partners:

At the end of FY 22, CVEC managed 46 operational solar PV projects, monitored 5 projects under construction, and awaited MA Department of Utilities' approval of electric utility capital investment programs for Cape Cod and Marion/Fairhaven to unlock another 12 projects from Rounds 4 & 5. At the end of FY 22, CVEC operational projects produced approximately 43.75 MW.

As a member-focused electric cooperative, CVEC acts as a procurement resource and project management administrator, and performs like an energy aggregator by buying and distributing the value of energy to its members and participants. In FY 22, CVEC realized commercial operation of its first solar PV project with battery storage for the Town of Oak Bluffs.

CVEC is on its way to owning its first renewable energy project. The MA Department of Energy Resources granted CVEC its second extension of a \$1.4 million grant to install a 250 kW battery at the regional emergency shelter in the Town of Yarmouth. Eversource approved the interconnection agreement in May of 2022. By this time next year, the battery will be providing back-up renewable energy, reducing the amount of diesel backup power needed during an outage, and providing the region with a model for the future.

During FY 22, CVEC addressed operational issues resulting primarily from post-pandemic and inflationary impacts. Solar PV supply chain issues affected the US photovoltaic industry, making completion of CVEC's pending Rounds 4 and 5 projects challenging. The industry faced increased shipping costs of modules from China and Southeast Asia, skyrocketing costs of polysilicon, and labor shortages. These factors affected CVEC's projects from construction to repair

We are hopeful that in FY 23, with new federal incentives for solar PV and battery storage, CVEC will be well-positioned as an electric cooperative to complete Rounds 4 & 5 and to consider all options to fulfill the energy needs of Round 6 participants.

/Maria Marasco, Executive Director

C V E C | Electric Cooperative

CVEC, established in 2007, is an energy cooperative and is deemed a Massachusetts government entity. It develops and manages solar PV projects which includes battery storage where applicable for its governmental members and participants.

GOALS AND OBJECTIVES

Developing and/or owning renewable electric generation facilities and procuring and/or selling long-term electric supply or other energy-related goods or services including renewable energy certificate contracts at competitive prices to member communities.

CVEC

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CVEC | Cape & Vineyard Electric Cooperative, Inc.

Members

Member Representative, CVEC Board of Directors as of 6.30.22

County of Barnstable	Mark Forest (Executive Committee)
Cape Light Compact	Mariel Marchand (Executive Committee)
Aquinnah	William Lake (President, Executive Committee)
Barnstable	Charles McLaughlin, Esq. (Executive, Finance Committees)
Bourne	Janice Marks
Brewster	Charles Hanson (Clerk, Executive & Finance Committees)
Chatham	Robert Wirtshafter (Treasurer, Executive & Finance Committees)
Chilmark	Stephen Lewenberg
Dennis	Thomas O'Connor
Dukes County	Tain Leonard-Peck
Eastham	Vacant
Edgartown	Alan Strahler
Falmouth	Rosemary Dreger-Carey
Harwich	Vacant
Marion	Alanna Nelson
Mashpee	Wayne Taylor
Nantucket	Lauren Sinatra
Oak Bluffs	Dion Alley
Orleans	Ron Collins
Provincetown	Lydia Hamquist
Sandwich	Laura Gregario-Tanquilig
Tisbury	Jay Grande
Truro	Mark Farber
West Tisbury	Jennifer Rand (Vice President, Executive Committee)
Yarmouth	Vacant

CVEC Participants in Projects (non-members)

Barnstable Fire District, Cape Cod Gateway Airport, Cotuit-Osterville-Marston Mills Fire District, Dennis-Yarmouth Regional School District, Harwich Water District, Martha's Vineyard Airport, Monomoy School District, Nauset Regional School District, Sandwich Water District, Upper Cape Regional Water District.

CVEC's PROJECTS as of 6.30.22	Round	Type of Project	COD or Status as of 7.1.22	Type
Barnstable High School	C-7	BTM	8.23.10	PPA
Bourne Middle School	C-7	BTM	4.30.10	PPA
Brewster Eddy Elementary	C-7	BTM	7.16.10	PPA
Brewster Stoney Brook Elementary	C-7	BTM	7.16.10	PPA
Eastham DPW	C-7	BTM	2.25.10	PPA
Eastham Elementary	C-7	BTM	2.27.10	PPA
Harwich Elementary	C-7	BTM	7.22.10	PPA
Barnstable Landfill 1 & 2	1	Cash out No OT	9.15.14	PPA
Brewster Capped Landfill	1	Cash out No OT	9.15.14	PPA
Chatham Capped Landfill	1	Cash out No OT	9.29.14	PPA
Eastham Landfill	1	NMC w OT	4.23.14	PPA
Edgartown Katama Farms Landfill	1	Cash out No OT	6.6.14	PPA
Edgartown Nunnepog Well	1	Cashout w OT	6.6.14	PPA
Harwich Capped Landfill	1	Cash out w OT	8.1.14	PPA
Tisbury Capped Landfill	1	Cash out w OT	7.29.14	PPA
Barnstable Cape Cod Gateway Airport	2	Cashout w OT	4.3.15	PPA
Barnstable Fire District	2	NMC w OT	4.21.15	PPA
Barnstable High School	2	BTM	10.8.14	PPA
Barnstable Senior Center	2	BTM	12.2.14	PPA
Bourne Community Center	2	BTM	8.30.14	PPA
Chatham Police Station	2	BTM	8.30.14	PPA
Chatham Town Hall Annex	2	BTM	8.30.14	PPA
DYRSD High Roof Mount	2	NMC w OT	3.16.15	PPA
DYRSD Ezra Baker School	2	BTM	8.30.14	PPA
DYRSD High School Ground Mount	2	NMC w OT	4.14.15	PPA
DYRSD Mattacheese School	2	BTM	12.16.14	PPA
DYRSD ME Small School	2	NMC w OT	2.27.15	PPA
DYRSD Wixon School	2	NMC w OT (seasonal)	12.8.14	PPA
Orleans Capped Landfill	2	NMC no OT	5.15.15	PPA
Provincetown Transfer Station	2	BTM	12.15.14	PPA
West Tisbury Landfill	2	NMC w OT	1.5.15	PPA
West Villages School	2	BTM	10.8.14	PPA
Chatham Fire Station	3	BTM	1.1.20	PPA

Eastham Library	3	BTM	1.1.20	PPA
Oak Bluffs Fire Station	3	BTM	1.1.20	PPA
Provincetown VMCC	3	BTM	7.1.20	PPA
Provincetown WTP	3	BTM	1.1.20	PPA
Yarmouth Fire Station #1	3	BTM	1.1.20	PPA
Yarmouth Fire Station #3	3	BTM	1.1.20	PPA
Brewster Driving Range	4	SAL	8.16.21	SAL
Brewster Golf Course Park Lot	4	SAL	3.22.22	SAL
Harwich Cranberry Valley Golf Cart Barn	4	BTM	7.21.21	PPA
Monomoy RSD Harwich High School	4	BTM	3.12.21	PPA
Oak Bluffs Capped Landfill	4	ATM	Distribution Study	PPA
Oak Bluffs Elementary School	4	BTM	6.14.22	PPA
Sandwich Forestdale School	4	BTM	Distribution Study	PPA
Sandwich High School	4	BTM	Distribution Study	PPA
Sandwich Hollows Golf Course Cart	4	BTM	Distribution Study	PPA
Sandwich Oakridge School	4	BTM	Distribution Study	PPA
Sandwich Police Station	4	BTM	1.11.21	PPA
Yarmouth Parcel E	4	BTM	Distribution Study	PPA
Aquinnah Fire Dept.	5	BTM	Pending construction	PPA
Aquinnah Town Hall/Police Dept.	5	BTM	Pending construction	PPA
Chatham Police Station Canopy	5	LO	Under construction	SAL
Chatham Recreation Center	5	BTM	Under construction	PPA
Marion Capped Landfill	5	LO	Distribution Study	SAL
Mashpee Coombs School Canopy	5	BTM	Distribution Study	PPA
Mashpee Coombs School Roof	5	BTM	Distribution Study	PPA
Mashpee High School Canopy	5	BTM	Distribution Study	PPA
Mashpee Quashnet School Canopy	5	BTM	Distribution Study	PPA
Mashpee Quashnet School Roof	5	BTM	Distribution Study	PPA
Nauset RSD Harwich Middle School	5	BTM	Distribution Study	PPA
Sandwich Hollows Golf Course Cart Barn	5	LO	Distribution Study	SAL
Yarmouth Senior Center	5	BTM	Under construction	PPA
Future Generation Wind	3rd party	Cash out w OT	8.15.16	
Nexamp	3rd party	Cash out w OT	11.21.17	
Syncharpha	3rd party	Cash out w OT	11.14.16	

CVEC FY 22 HIGHLIGHTS

Battery Energy Storage Project

In Fiscal 2022, CVEC signed a second grant extension with the Massachusetts Department of Energy Resources under a Community Clean Energy Resilience Initiative to install a 250 kW battery at the Dennis-Yarmouth Regional High School in Yarmouth, Massachusetts to provide back-up energy to the School during a power outage. The School serves as the region's emergency shelter and is the main focus of the Initiative.

Ameresco, a Massachusetts-based developer, is project manager for this Battery Energy Storage System (BESS) initiative and will oversee the installation of the BESS with an anticipated operation date during the 4th Quarter of Fiscal 2023. The total DOER Initiative grant awarded to CVEC is \$1.4 million. CVEC will own the battery system and will derive a revenue stream to maintain operations. CVEC will provide an annual lease payment to the Dennis-Yarmouth Regional School District for hosting the battery as well as reimburse the District for any excess battery charging costs. CVEC reports to DOER each quarter on its BESS activities.

CVEC Internal Operations

Last year, CVEC undertook a major review of its internal operations and began a painstaking but valuable revision of its management functions. Previously, CVEC relied on an outside bookkeeping firm and an energy consultant to process the production and related data for certain projects. At the same time, CVEC was collecting the data internally, finding duplication and delay. This major undertaking will improve underlying project transaction activities shortly, and we are near the finish line. We updated our Business & Fiscal Policies and Procedures Manual and instituted several new and more effective procedures. We believe that our efficiency and standardization efforts will result in more timely reporting and more in-depth analysis.

Round 6 Solar PV/Storage Initiative

Round 6 occurred during the pandemic, causing a number of unanticipated delays. While CVEC made awards for projects to two developers in late November, unfortunately, it was not able to finalize contract negotiations primarily due to major setbacks to the solar PV market's supply chain, according to the developers. The Round began with an enhanced process to better identify project parameters and feasibility for battery storage, and yet neither of the final awardees included battery storage with the solar PV systems citing supply chain issues.

Additionally, CVEC did not receive qualified responses for initial projects bid for the towns of Oak Bluffs, Tisbury, and West Tisbury. Developers also did not bid on two Martha's Vineyard carport canopies citing, in particular, the marked increase in the cost of steel. To address these projects, CVEC began discussions with potential strategic partners to address fulfilling the energy requirements of participants. CVEC is working diligently to secure a solution to fulfill these projects for over 2 MW of capacity, including exploring its options under new federal legislation providing for financial incentives for electric cooperatives who build their own systems.

CVEC's Form of Contracts

CVEC utilizes a third-party ownership structure with the project owner ("Developer") responsible for the design, installation, and operation of the project, the Town or Participant ("Host") as lessor of the property on which the solar is constructed, and CVEC as the seller and administrator ("Seller") of the energy.

Lease Agreement ("Lease") between Developer and Property Owner ("Host")

The Developer and the Host will enter into a long-term Lease with an initial term of twenty years from commercial operation of the solar PV system. The Lease will establish the Developer's right to access and use the Host's property for the design, installation, and operation of the solar PV project. In addition, the Lease will require the Developer to provide a payment and performance bond in advance of construction of the solar PV system and to provide a commercially reasonable form of decommissioning assurance to address the possibility that the Developer might fail properly to remove the PV system from the Host's property on expiration of the Lease. CVEC will be a third-party beneficiary of the Lease. The Host's reserved use of the leased premises and any special conditions applicable to Developer's development and use of the leased premises (if any) will be set forth in a special exhibit to the Lease.

Power Purchase Agreement ("PPA") between CVEC and Developer

The Developer and CVEC will enter into a long-term PPA with an initial term of twenty years from commercial operation of the solar PV system. The PPA will govern CVEC's purchase of the net energy from the system. Developers were given the option for many participating projects to bid a PPA price that is inclusive or exclusive of a battery energy storage system. The PPA will contain the Developer's permitting, construction, and commissioning benchmarks, require routine reporting on design, permitting, and financing for the solar PV system, and provide for liquidated delay damages in the event that Developer does not construct and/or commission the solar PV system by a date certain. The Developer will be required to provide financial surety to backstop its obligations under the Lease and PPA, in addition to payment and performance bonds and the decommissioning assurance required under the Lease. Finally, the PPA will contain a guaranteed annual production requirement for the solar PV system and the payment of damages should there be a production shortfall. The Host will be a third-party beneficiary of the PPA.

Inter-Governmental Power Sales Agreement ("IGA") between CVEC and Host

CVEC and the Host will enter into an IGA with an initial term of twenty years from commercial operation of the solar PV system. The IGA will govern CVEC's resale to Host of the net energy from the solar PV system. In addition, delay damages and production shortfall damages paid from Developer to CVEC under the PPA will pass through to the Host under the IGA. Under the IGA, CVEC will provide administrative services directly related to development, installation, and operation of the PV System to the Host and, in exchange, collect an operational adder from the Host in addition to the PPA price. A Host may subscribe to additional CVEC services to manage its projects.

Rounds 4 and 5

Developer Greenskies/Clean Focus completed the Oak Bluffs Elementary School project just before the end of FY 22 despite pandemic-related travel delays and final construction issues. CVEC also saw commercial operations begin at the Brewster Golf Course Parking Lot in March of 2022. The developer Distributed Solar Development began construction on the Nauset Middle School carport canopy solar PV with battery storage project in FY 22 with a completion date by the end of calendar 2022.



Oak Bluffs Elementary School Solar PV with BESS

CVEC issued an RFP for 21 Round 4 solar PV projects in 2018 on behalf of member towns and other government participants. CVEC acted as the procuring authority under MGL c. 164, s. 37. By the end of 2019, CVEC had completed Round 4 contract negotiations with the developers. In December 2019, CVEC advertised a new Round 5 for 22 projects, of which 13 were to include batteries. Four Round 4 projects began operations in FY 21. In FY 21, CVEC cancelled a number of projects at the request of certain members.

The Oak Bluffs Elementary School project is CVEC's first solar PV with battery energy storage system member project. It consists of a 231.77 kilowatt (kW) solar energy system with a Tesla 58 kW/232 kWh energy storage system unit. Annually, the solar array of 600 photovoltaic (PV) panels can generate over 265,000 kilowatt-hours (kWh) of clean energy, offsetting more than 414,000 pounds of carbon dioxide (CO₂). Over the next twenty years, that's the equivalent of taking about 810 gas-powered cars off the road or preserving 4,440 acres of forest. (Source: US EPA Greenhouse Gas Calculator).

The following Round 5 projects are either pending or remain under construction: Aquinnah Town Hall/Police Station (PPA), Aquinnah Fire Department (PPA), Chatham Recreation Center (PPA), Chatham Police Station (PPA), and the Yarmouth Senior Center (PPA).

Distribution Studies for Round 4 and 5 Projects

Rounds 4 & 5	Name of PV System	Developer	Round	Eversource WO #	Nameplate Rating (AC)	Export Limit (kW)	PV (kW)	BESS (kW)
Marion	Marion Capped Landfill	DSD	5	2401247	1700	1700	1000	700
Mashpee	Mashpee Coombs School Canopy	DSD	5	2401235	730	730	450	280
Mashpee	Mashpee Coombs School Roof	DSD	5					
Mashpee	Mashpee High School Canopy	DSD	5	2400260	1490	1490	1000	490
Mashpee	Mashpee Quashnet School Canopy	DSD	5	2400979	2075	2075	1375	700
Mashpee	Mashpee Quashnet School Roof	DSD	5					
Oak Bluffs	Oak Bluffs Capped Landfill	Green Skies	4	2392014	1000	1000	1000	500
Sandwich	Sandwich Forestdale School	DSD	4	2349583	850	750	500	350
Sandwich	Sandwich High School	DSD	4	2349579	3455	3455	2563	892
Sandwich	Sandwich Hollows Golf Course Cart	DSD	4	2401361	475	475	475	0
Sandwich	Sandwich Oakridge School	DSD	4	2349576	850	850	500	350
Yarmouth	Yarmouth Parcel E	DSD	4	2348526	499	499	499	0

Eversource completed Distribution Group Studies for CVEC's Marion project in March of 2022 and for CVEC's Cape & Islands projects in April of 2022. These studies analyzed the impact for over 50 other unrelated projects on the utility grid. The 12 projects listed above await final the MA Department of Public Utilities' (DPU's) determination of Eversource's capital investment project proposal under the DPU's Provisional System Planning Program. CVEC submitted public comments to DPU as part of the rate-determination process by providing the above information and concern for delays and increased costs. Members can review the matter at <https://eeonline.eea.state.ma.us/DPU/Fileroom/dockets/bynumber> (enter "22-55").

ISO- NE Forward Capacity Markets

CVEC contracts with two Forward Capacity Market (FCM) vendors who enroll CVEC's projects into ISO-NE and related programs for additional income.

CPower is a demand-side energy management company that operates under a contract with the Massachusetts Department of Capital Management. As a government entity, CVEC utilizes this contract. CPower provides capacity monetization of CVEC's Behind-the-Meter solar PV arrays into the ISO-NE Forward Capacity Market. In Fiscal 22, CVEC had 13 sites with 833 kW capacity enrolled. Systems must be enrolled within the first three years of each system's commercial operation date. CVEC earned \$70,448 in gross settlements in Fiscal 2022. Revenues to CVEC will continue over the 20-year life of the solar PV systems.

In deregulated electricity markets, two main products are electricity and capacity. Capacity can be viewed as a call option on electricity where a peaking resource is paid to be on standby in the event that it is needed. In a grid with peaky load characteristics, capacity markets are crucial to keeping the lights on during spikes in demand. The Forward Capacity Market (FCM) ensures that the New England power system will have sufficient resources to meet the future demand for electricity. Forward Capacity Auctions (FCAs) are held annually, three years in advance of the operating period. Resources compete in the auctions to obtain a commitment to supply capacity in exchange for a market-priced capacity payment. These payments help to support the development of new resources as well as to retain existing resources. (Source: ISO-NE)

CVEC also works with CLEAResult, a provider of energy efficiency and demand response solutions. CLEAResult represents 14 of CVEC's Front-of-the Meter solar projects, totaling roughly 9 MW of capacity, in the ISO-NE FCM. For Fiscal 2022, CVEC recorded approximately \$35,675 in forward capacity gross income from 14 projects.

Relationship Building- Eversource

Eversource Energy is the primary energy company serving the Cape & Islands and Southeastern Massachusetts communities of our members. CVEC and its developers rely on Eversource to approve interconnection applications on a timely basis, to provide the electric infrastructure equipment such as transformers and meters, and to support the installation of these projects. In June of 2022, Warren Boutin Director, Electric Service Support, Distributed Generation and Supplier Services at Eversource Energy and Ronit Goldstein, Community Relations and Economic

Development representative at Eversource attended CVEC's June board meeting to discuss the two Distribution Group Studies in which a number of CVEC projects from Rounds 4 and 5 are included. (See chart above.)

In addition, Eversource has been supportive in CVEC's efforts to install the BESS at the regional emergency shelter. After operating under *force majeure* during the pandemic, they responded to CVEC's request to advance the work order for the interconnection for the DOER BESS Project.



Provincetown Community Center



Yarmouth Fire Station #3

CVEC'S PROJECTS BY TYPE

Behind-the-Meter



The majority of CVEC's projects are "Behind-the-Meter" projects in which CVEC buys the energy from a developer. The Developer owns the project, building it on either the CVEC Member's or Participant's land. The Member or Participant is called the Host. The developer calculates the energy production and invoices CVEC for the energy at a price determined through an initial RFP process. CVEC then invoices the Host for the cost of energy plus an administrative adder per kWh for project oversight.

Bourne Community Center Roof-Mount Solar PV

Cash out Projects without Offtakers

CVEC's projects at the Barnstable Landfills (1 & 2), Edgartown Katama Farms Landfill, Brewster Landfill, and Chatham Landfill are Cash-out projects without Offtakers, meaning only the Host receives the cash value of the net metering credit each month less the developer's costs and less CVEC's adder. Note: CVEC ceased charging its adder for Round 1 projects in FY 21.



Orleans Capped Landfill Solar PV

Cash out Projects with Offtakers



Edgartown Nunnepog Ground-mount Solar PV

This type of project includes the Edgartown Nunnepog Landfill, Harwich Capped Landfill, Tisbury Capped Landfill, and Cape Cod Gateway Airport ground mount. The Host and other CVEC members or participants called "Offtakers" receive the cash value of net metering credits in their respective proportionate shares, less the developer costs and CVEC's adder.

Eversource sends CVEC, as project administrator, the monthly cash value of the net metering credits via wire transfer, and CVEC then allocates the net cash value to the Host and the Offtakers in their respective shares. In addition, for hosting the project, the Host receives an additional one-half of the offtaker's net benefits each month, called a "Revenue Sharing" portion. The Revenue Share calculation is: $50\% \times \text{offtaker's [net metering credit value less developer's cost less CVEC's adder]}$.

Net Metering Credits with and without Offtakers

CVEC also has projects in which members and participants receive net metering credits (NMCs), versus the cash value of those credits, from a Host project. The net metering credits are used to offset the cost of energy. These projects include the Eastham Landfill, Barnstable Fire District, Dennis-Yarmouth Regional School District (DYRSD) High School Ground and Roof Mounts, DYRSD Marguerite Small Elementary School Roof Mount and Wixon School Roof Mount, Orleans Capped Landfill, and the West Tisbury Landfill. These projects have as few as one Offtaker to as many as nine Offtakers for which CVEC calculates each share. The same revenue-sharing method as noted above is applied to these projects.

The Orleans Capped Landfill is a NMC project without any offtakers.

Offtaker Rounds I and II Production Pool

In 2014, CVEC established a Production Pool from Round I and Round II Projects. Round I Projects included large-scale (6 - 4.4. MW) projects at the Harwich Landfill, Eastham Landfill, Edgartown Nunnepog Well, and Tisbury Landfill. Round II Projects included large-scale (.5 – 6.6 MW) projects at the Barnstable Airport, Barnstable Fire District, Dennis-Yarmouth High School, and at the West Tisbury Landfill. The energy in the Production Pools is the net energy generated from the projects that the Hosts did not reserve.

The allocation of net metering credits is determined from Inter-governmental Net Metering Power Sales Agreements through which the Offtakers, receive the value of the net metering credits either in the form of cash or credits.

Allocations by System and Offtaker

System	Offtaker	Percentage
Eastham Landfill R1 Net Metering Credits	Barnstable County	3.96%
	Brewster	2.42%
	Chatham	1.05%
	Chilmark	0.24%
	Dukes County	0.40%
	Eastham	77.07%
	Monomoy Schools	4.83%
	Oak Bluffs	1.21%
	Provincetown	2.15%
	Yarmouth	6.67%
	Total	100.00%
Nunnepog Well- R1 Cash value of Net Metering Credits	Barnstable County	9.40%
	Brewster	5.80%
	Chatham	2.50%
	Chilmark	0.60%

	Dukes County	1.00%
	Edgartown	45.20%
	Monomoy Schools	11.50%
	Oak Bluffs	2.90%
	Provincetown	7.50%
	Yarmouth	13.70%
	Total	100.00%
Harwich Landfill R1- Cash value of Net Metering Credits	Barnstable County	8.40%
	Brewster	5.20%
	Chatham	2.20%
	Chilmark	0.40%
	Dukes County	0.70%
	Harwich	61.80%
	Oak Bluffs	2.60%
	Provincetown	6.70%
	Yarmouth	12.20%
	Total	100.00%
Tisbury Landfill R1- Cash value of Net Metering Credits	Barnstable County	2.10%
	Brewster	1.30%
	Chatham	0.60%
	Chilmark	0.10%
	Dukes County	0.20%
	Monomoy Schools	2.60%
	Oak Bluffs	0.60%
	Provincetown	1.70%
	Tisbury	87.80%
	Yarmouth	3.10%
	Total	100.00%
Airport - Section 2-R2- Cash value of Net Metering Credits	Airport	19.20%
	Barnstable	80.80%
	Total	100.00%
Barnstable Fire District R2-Net Metering Credits	Barnstable County	11.31%
	Barnstable Fire District	35.79%
	Brewster	6.53%
	Chatham	2.73%
	Chilmark	0.63%
	Dukes County	1.08%
	Monomoy Schools	14.23%
	Oak Bluffs	3.16%
	Provincetown	8.62%
	Yarmouth	15.92%

	Total	100.0%
DYHS Ground Mount R2- Net Metering Credits	DYRSD	0.00%
	Yarmouth	100.00%
	Total	100.00%

Lease Only



Brewster Captains Golf Course

Certain projects do not have a Power Purchase Agreement in place. Instead of the value of net metering credits, the Host receives monthly lease payments over the life of the solar PV system. CVEC provides project oversight through an Intergovernmental Agreement in which there is an annual fee in place of an adder.

Third-party Power Purchase Agreements

With the goal of managing a diversified portfolio of distributed renewable energy projects, CVEC purchases energy from third-party operators of solar PV and wind projects. CVEC purchases net metering credits and in turn resells them to certain CVEC members and participants. These Offtakers receive the cash value of the net metering credits less the developer's cost and less CVEC's operational adder per kWh of production.

Future Generation Wind, Agreement effective November 20, 2014, for participation in (up to four) wind energy generation facilities, with an aggregate generating capacity of 8 MW located in Buzzards Bay, MA.

Syncarpha Capital, Marie's Way Solar I, LLC, Agreement effective November 9, 2016, for participation in solar PV power electrical generation facility with an estimate generation capacity of 6,850,000 KWh per year located in Orleans, MA.

Nexamp, Dartmouth Farms Solar, LLC. Agreement effective January 15, 2015 and amended June 22, 2016 for participation in three(3) 2,250 kW (AC)(total) solar PV arrays located in Dartmouth, MA.

Service Agreements

A number of CVEC's member towns have service agreements with CVEC. The services are either outside the scope of CVEC's Operational Adder (for general accounting administration of those projects for which CVEC led procurement) or involve a solar PV project that the member installed on its own. CVEC maintains its service agreement relationships for FY 23 with the following members:

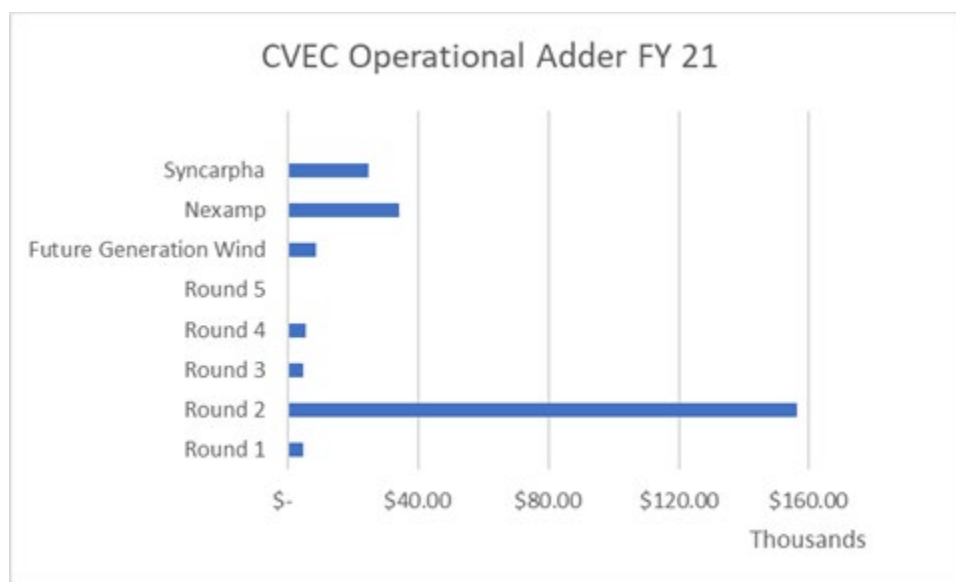
- *Dennis* -- CVEC provides expertise to manage the distribution of the Town's net metering credits from their capped landfill PV system which is not a CVEC-procured project.
- *Sandwich* -- CVEC supports the Town with administrative and transactional services relative to a 4-megawatt PV system which is not a CVEC-procured project.

- *Yarmouth* -- CVEC provides the Town with services outside the scope of CVEC's Operational Adder for various CVEC projects and over 100 electric utility accounts, including electric invoice payment through the town's MUNIS platform, review and analysis of electric charges, Schedule Z support, and accounting of all net metering credit transactions.

CVEC invites all members and participants to discuss using CVEC's management services to support existing municipal efforts.

CVEC's Administrative Adder

CVEC derives its revenue from charging participants an administrative Adder on the energy generated from projects in Rounds 2 through 6. CVEC does not charge the participants an adder for CVEC's original CVEC-7 and Round 1 projects (effective FY 22). As a cooperative, the members share in these administrative costs. The larger 1+ plus megawatt projects from Round 2 pay for the bulk of CVEC's administrative costs.



Learn more about Solar at the US Office of Energy Efficiency & Renewable Energy: [How Does Solar Work? | Department of Energy](#)

FINANCIAL STATEMENTS

CAPE & VINEYARD ELECTRIC COOPERATIVE, INC. MANAGEMENT'S DISCUSSION AND ANALYSIS JUNE 30, 2022

As management of the Cape & Vineyard Electric Cooperative, Inc. (CVEC), we offer readers of these financial statements this narrative overview and analysis of CVEC's financial activities for the year ended June 30, 2022.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the financial statements, which consist of the following two components:

1. Financial statements
2. Notes to financial statements

Financial Statements

CVEC's financial statements are prepared in accordance with accounting principles generally accepted in the United States of America, as set forth by the Governmental Accounting Standards Board (GASB). The financial statements are presented on the accrual basis of accounting and include the following three basic financial statements: (1) the statement of net position, (2) the statement of revenues, expenses, and change in net position, and (3) the statement of cash flows.

The financial statements can be found on pages 6 – 8 of this report.

Notes to Financial Statements

The notes provide additional information that is essential to a full understanding of the data provided in the financial statements. The notes to the financial statements can be found on pages 9 – 16 of this report.

Financial Statement Analysis

The following tables present current and prior year data on the financial statements:

Net Position

CVEC's assets exceeded liabilities by \$782,637 at the close of the fiscal year and are summarized as follows:

	2022	2021	Change (\$)	Change (Percent)
Assets				
Current Assets	\$ 1,395,161	\$ 1,243,338	\$ 151,823	12.21%
Liabilities				
Current Liabilities	612,524	551,222	61,302	11.12%
Net Position				
Unrestricted	<u>\$ 782,637</u>	<u>\$ 692,116</u>	<u>\$ 90,521</u>	13.08%

CAPE & VINEYARD ELECTRIC COOPERATIVE, INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2022

CVEC's assets consist primarily of cash and cash equivalents, and accounts receivable and net metering credits (NMC) pass-through activities.

Liabilities consist of accounts payable and accrued expenses.

The significant increases in assets and liabilities were a result of timing differences in receipt and disbursements of pass-through transactions in the current fiscal year.

Changes in Net Position

CVEC's net position increased by \$90,521 for the year ended June 30, 2022, and is summarized as follows:

	2022	2021	Change (\$)	Change (Percent)
Operating Revenues	\$ 4,046,050	\$ 3,865,549	\$ 180,501	4.67%
Operating Expenses	<u>4,072,771</u>	<u>3,947,538</u>	<u>125,233</u>	3.17%
Operating Loss	(26,721)	(81,989)	55,268	-67.41%
Nonoperating Revenues	<u>117,242</u>	<u>2,433</u>	<u>114,809</u>	4718.82%
Change in Net Position	90,521	(79,556)	170,077	-213.78%
Net Position - Beginning of Year	<u>692,116</u>	<u>771,672</u>	<u>(79,556)</u>	-10.31%
Net Position - End of Year	<u>\$ 782,637</u>	<u>\$ 692,116</u>	<u>\$ 90,521</u>	13.08%

Operating revenues consist primarily of energy sales, operational adder revenue, forward capacity market revenue, and administrative services income. Operating revenues increased by \$180,501, which was primarily due to the increase in energy production.

Operating expenses consist primarily of purchased power costs (\$3,560,558, or 87%) and salaries and benefits (\$181,660, or 5%). Operating expenses increased by \$125,233 primarily due to the corresponding increase in energy sales revenue.

Nonoperating revenues related to grant revenue received in connection with the battery project.

Requests for Information

This financial report is designed to provide a general overview of the CVEC's finances. Questions concerning any of the information provided in this report should be addressed to the President of the Board of Directors, 23H2 White's Path, Suite 2, South Yarmouth, MA 02664.

CAPE & VINEYARD ELECTRIC COOPERATIVE, INC.
STATEMENT OF NET POSITION
JUNE 30, 2022

ASSETS

CURRENT ASSETS

Cash	\$ 510,398
Accounts Receivable:	
Members - Energy Sales	633,209
Intergovernmental	116,104
Other	10,200
NMC Pass-through	15,528
Prepaid Expenses	109,722
Total Current Assets	<u>1,395,161</u>
 Total Assets	 <u>1,395,161</u>

LIABILITIES

CURRENT LIABILITIES

Accounts Payable and Accrued Expenses	<u>612,524</u>
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NET POSITION

Unrestricted	782,637
Total Net Position	<u>\$ 782,637</u>

CAPE & VINEYARD ELECTRIC COOPERATIVE, INC.
STATEMENT OF REVENUES, EXPENSES, AND CHANGE IN NET POSITION
YEAR ENDED JUNE 30, 2022

OPERATING REVENUES

Energy and Net Metering Credit Sales	\$ 3,560,558
Operational Administrative Adder	272,177
Forward Capacity Market	70,448
Administrative Services Revenue	107,042
On Peak Hours Resources Revenue	35,675
Other Revenue	150
Total Operating Revenues	<u>4,046,050</u>

OPERATING EXPENSES

Salaries and Benefits	181,660
Purchased Power Costs	3,560,558
Legal Fees	162,182
Administrative and General	168,371
Total Operating Expenses	<u>4,072,771</u>

OPERATING LOSS	(26,721)
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NONOPERATING REVENUES

Investment Income	1,138
Intergovernmental Revenue	116,104
Total Nonoperating Revenues	<u>117,242</u>

CHANGE IN NET POSITION	90,521
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Net Position - Beginning of Year	<u>692,116</u>
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NET POSITION - END OF YEAR	<u><u>\$ 782,637</u></u>
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FY 21 Project Reports

Note: While the totals in CVEC's Net Metering Report reflect 12 months of data, the data does not necessarily correspond directly with the fiscal year-end due to CVEC's accrual basis of accounting.

CVEC Cape & Vineyard Electric Cooperative, Inc.											
FISCAL 2022											
NET BENEFITS BY SYSTEM	kWh	NMC Value	PPA Rate	Average NMC value	PPA Cost	CVEC Admin Rate	Admin Cost	Revenue Share to Host, if any	Net Revenue (Cost)	(Cost) if No Solar [G-1 Rate \$.019 avg]	Metric Tons of CO ₂ Equivalent
CVEC-7											
Barnstable High School Roof	96,357		\$ (0.13450)		\$ (12,960)	\$ -	\$ -	-	\$ (12,960)	\$ (18,308)	41.7
Bourne Middle School	179,784		\$ (0.13450)		\$ (24,181)	\$ -		-	\$ (24,181)	\$ (34,159)	77.8
Brewster Eddy Elementary	126,453		\$ (0.13450)		\$ (17,008)	\$ -	\$ -	-	\$ (17,008)	\$ (24,026)	54.7
Brewster Stoney Brook Elementary	129,893		\$ (0.13450)		\$ (17,471)	\$ -	\$ -	-	\$ (17,471)	\$ (24,680)	56.2
Eastham DPW	92,973		\$ (0.13450)		\$ (12,505)	\$ -	\$ -	-	\$ (12,505)	\$ (17,665)	40.2
Eastham Elementary	113,541		\$ (0.13450)		\$ (15,271)	\$ -	\$ -	-	\$ (15,271)	\$ (21,573)	49.1
Harwich Elementary	58,538		\$ (0.13450)		\$ (7,873)	\$ -	\$ -	-	\$ (7,873)	\$ (11,122)	25.3
ROUND 1											
Barnstable Landfills 1&2	4,718,044	\$ 888,851	\$ (0.07290)	\$ 0.18839	\$ (343,945)	\$ -	\$ -	\$ -	\$ 544,906	\$ (896,428)	2,041.0
Brewster Landfill	1,462,620	\$ 264,860	\$ (0.08500)	\$ 0.18109	\$ (124,323)	\$ -	\$ -	\$ -	\$ 140,537	\$ (277,898)	620.0
Chatham Landfill	2,220,842	\$ 418,227	\$ (0.07170)	\$ 0.18832	\$ (159,234)	\$ -	\$ -	\$ -	\$ 258,993	\$ (421,960)	961.0
Eastham Landfill	701,340	\$ 128,738	\$ (0.07070)	\$ 0.18356	\$ (49,585)	\$ -	\$ -	\$ 9,075	\$ 88,228	\$ (133,255)	303.0
Edgartown Katama Farms	1,346,280	\$ 221,448	\$ (0.09040)	\$ 0.16449	\$ (121,704)	\$ -	\$ -	\$ -	\$ 99,745	\$ (255,793)	582.0
Edgartown Nunnepog Landfill	1,438,380	\$ 241,645	\$ (0.09860)	\$ 0.16800	\$ (141,824)	\$ -	\$ -	\$ 33,857	\$ 133,678	\$ (273,292)	622.0
Harwich Capped Landfill	5,600,700	\$ 1,049,552	\$ (0.07100)	\$ 0.18740	\$ (397,650)	\$ -	\$ -	\$ 124,611	\$ 776,513	\$ (1,064,133)	2,423.0
Tisbury Capped Landfill	1,482,360	\$ 277,537	\$ (0.09130)	\$ 0.18723	\$ (135,339)	\$ -	\$ -	\$ 8,703	\$ 150,901	\$ (281,648)	641.0
ROUND 2											
Barnstable CC Gtwy Airport Ground	6,664,080	\$ 1,260,819	\$ (0.06250)	\$ 0.18920	\$ (416,505)	\$ (0.01114)	\$ (74,238)	\$ 275,772	\$ 1,045,848	\$ (1,266,175)	2,883.0
Barnstable Fire District Ground	1,130,400	\$ 211,531	\$ (0.06098)	\$ 0.18713	\$ (68,932)	\$ (0.01672)	\$ (18,900)	\$ 40,205	\$ 163,904	\$ (214,776)	489.0
Barnstable High School Roof*	608,132		\$ (0.07320)		\$ (44,515)	\$ (0.01114)	\$ (6,775)		\$ (51,290)	\$ (115,545)	263.0
Barnstable Senior Center	138,864		\$ (0.05580)		\$ (7,749)	\$ (0.01114)	\$ (1,547)		\$ (9,296)	\$ (26,384)	60.1
Bourne Community Center	41,597		\$ (0.07130)		\$ (2,966)	\$ (0.01114)	\$ (463)		\$ (3,429)	\$ (7,903)	18.0
Chatham Police Station	27,708		\$ (0.07130)		\$ (1,976)	\$ (0.01114)	\$ (309)		\$ (2,284)	\$ (5,265)	12.0
Chatham Town Hall Annex	30,036		\$ (0.07130)		\$ (2,142)	\$ (0.01114)	\$ (335)		\$ (2,476)	\$ (5,707)	13.0
DYRSD High School Roof	445,160		\$ (0.07320)		\$ (32,586)	\$ (0.01672)	\$ (7,443)		\$ (40,029)	\$ (84,580)	193.0
DYRSD Ezra Baker School	71,989		\$ (0.07130)		\$ (5,133)	\$ (0.01672)	\$ (1,204)		\$ (6,336)	\$ (13,678)	31.1
DYRSD High School Ground	823,080	\$ 151,746	\$ (0.06715)	\$ 0.18436	\$ (55,270)	\$ (0.01672)	\$ (13,762)	\$ 41,838	\$ 124,552	\$ (156,385)	356.0
DYRSD Mattacheese School Roof	231,912		\$ (0.07320)		\$ (16,976)	\$ (0.01672)	\$ (3,878)		\$ (20,854)	\$ (44,063)	100.0
DYRSD ME Small School	843,960	\$ 169,682	\$ (0.05861)	\$ 0.20105	\$ (49,464)	\$ (0.01672)	\$ (14,111)	\$ 49,121	\$ 155,227	\$ (160,352)	365.0
DYRSD Wixon School	446,525		\$ 0.06268		\$ 27,988	\$ (0.01672)	\$ (7,466)	\$ 4,957	\$ 25,480	\$ (84,840)	193.0
Orleans Capped Landfill	641,303	\$ 118,210	\$ (0.07875)	\$ 0.18433	\$ (50,503)	\$ (0.01114)	\$ (7,144)		\$ 60,563	\$ (121,848)	277.0
Provincetown Transfer Station	208,622		\$ (0.05803)		\$ (12,106)	\$ (0.01114)	\$ (2,324)		\$ (14,430)	\$ (39,638)	220.0
West Tisbury Landfill	854,220	\$ 153,043	\$ (0.06473)	\$ 0.17916	\$ (55,294)	\$ (0.01114)	\$ (9,516)	\$ 5,884	\$ 94,118	\$ (162,302)	370.0
West Villages School	48,547		\$ (0.07320)		\$ (3,554)	\$ (0.01114)	\$ (541)		\$ (4,094)	\$ (9,224)	21.0
* includes amount paid for shortfall											
ROUND 3											
Chatham Fire Station	96,357		\$ (0.0749)		\$ (7,217)	\$ (0.0050)	\$ (482)		\$ (7,699)	\$ (18,308)	41.7
Eastham Library	125,870		\$ (0.0749)		\$ (9,428)	\$ (0.0050)	\$ (629)		\$ (10,057)	\$ (23,915)	54.5
Oak Bluffs Fire Station	90,800		\$ (0.0749)		\$ (6,801)	\$ (0.0050)	\$ (454)		\$ (7,255)	\$ (17,252)	39.3
Provincetown VMCC	301,618		\$ (0.0749)		\$ (22,591)	\$ (0.0050)	\$ (1,508)		\$ (24,099)	\$ (57,308)	130.0
Provincetown WTP	96,340		\$ (0.0749)		\$ (7,216)	\$ (0.0050)	\$ (482)		\$ (7,698)	\$ (18,305)	41.7
Yarmouth Fire Station #1	69,150		\$ (0.0749)		\$ (5,179)	\$ (0.0050)	\$ (346)		\$ (5,525)	\$ (13,139)	29.9
Yarmouth Fire Station #3	152,555		\$ (0.0749)		\$ (11,426)	\$ (0.0050)	\$ (763)		\$ (12,189)	\$ (28,985)	66.0

NET BENEFITS BY SYSTEM	kWh	NMC Value	PPA Rate	Average NMC value	PPA Cost	CVEC Admin Rate	Admin Cost	Revenue Share to Host, if any	Net Revenue (Cost)	(Cost) if No Solar [G-1 Rate \$.019 avg]	Metric Tons of CO ₂ Equivalent
ROUND 4											
Brewster Driving Range*											
Brewster Golf Course Park Lot*											
Harwich Cran Valley Golf GM & Cart	325,202		\$ (0.0640)		\$ (20,813)	\$ (0.005)	\$ (1,626)		\$ (22,439)	\$ (61,788)	141.0
Monomoy RSD Harwich HS	267,471		\$ (0.0010)		\$ (267)	\$ (0.0100)	\$ (2,675)		\$ (2,942)	\$ (50,820)	116.0
Oak Bluffs Capped Landfill **											
Oak Bluffs Elementary Roof & BES											
Sandwich Forestdale School**											
Sandwich High School Roof											
Sandwich Hollows Golf Course Cart**											
Sandwich Oakridge School**											
Sandwich Police Station Canopy	240,176		\$ (0.1050)		\$ (25,218)	\$ 0.00500	\$ 1,201		\$ (24,018)	\$ (45,633)	104.0
* Lease only **Distribution Study											
ROUND 5											
Aquinnah Fire Canopy***	-	-			\$ -	-			-	-	
Aquinnah Town Hall/Police Roof***	-	-			\$ -	-			-	-	
Chatham Police Station Canopy***	-	-			\$ -	-			-	-	
Chatham Recreation Center***	-	-			\$ -	-			-	-	
Marion Capped Landfill**	-	-			\$ -	-			-	-	
Mashpee Coombs School Canopy**	-	-			\$ -	-			-	-	
Mashpee Coombs School Roof**	-	-			\$ -	-			-	-	
Mashpee High School Canopy**	-	-			\$ -	-			-	-	
Mashpee Quashnet School Canopy**	-	-			\$ -	-			-	-	
Mashpee Quashnet School Roof**	-	-			\$ -	-			-	-	
Nauset RSD Harwich Middle School Can	-	-			\$ -	-			-	-	
Sandwich Hollows Golf Course Cart Barr	-	-			\$ -	-			-	-	
Yarmouth Senior Center Roof					\$ -	-			-	-	
* Lease only **Distribution Study *** Under construction											
Subtotal	34,789,778	\$ 5,555,888			\$ (2,494,711)		\$ (177,718)	\$ 594,024	\$ 3,477,483	\$ (6,610,058)	15,166.3
3RD-PARTY SYSTEMS											
Future Generation Wind	2,115,392	\$ 2,856,389	\$ (0.115)	\$ 0.288	\$ (243,270)	\$ (0.005)	\$ (10,576.96)	\$ -	\$ 2,602,542	\$ (401,924)	915.0
Nexamp	4,381,716	\$ 802,193	\$ (0.120)	\$ 0.158	\$ (590,179)	\$ (0.010)	\$ (43,817)	\$ -	\$ 168,197	\$ (832,526)	1,896.0
Syncarpha	2,464,197	\$ 449,526	\$ (0.100)	\$ 0.182	\$ (246,420)	\$ (0.010)	\$ (24,642)	\$ -	\$ 178,464	\$ (468,197)	1,067.0
Subtotal	8,961,305				\$ (1,079,869)		\$ (79,036)		\$ 2,949,203	\$ (1,702,648)	3,878.0
TOTAL kWh for Fiscal FY 22	43,751,083	\$ 5,555,888			\$ (3,574,580)		\$ (256,754)	\$ 594,024	\$ 6,426,686	\$ (8,312,706)	19,044.30
Note: The amounts above reflect the kWh billed during FY 22 and do not necessarily coincide with the actual July 1- June 30 production. For production value, please visit:											
Production Data – CVEC Electric Cooperative (cvecinc.org)											

For inquiries, please email office@cvecinc.org.

CVEC is a governmental entity and complies with the MA Public Records Law.



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