

Cape & Vineyard Electric Cooperative, Inc.

Annual Report FY 2019

HIGHLIGHTS

- Savings to date of over \$13.7M to Cape & Islands Towns, Counties, School & Fire Districts
- By 2020 CVEC renewables to total 51MW (a power plant)
- Critical elimination of carbon in our impacted region





CVEC PROVIDES

- Solar & wind projects
- Battery storage for emergency power
- Electric Vehicles
- Community Solar through town sign up





Cape & Vineyard Electric Cooperative, Inc. ANNUAL REPORT FISCAL YEAR 2019 July 1, 2018 - June 30, 2019

Prepared September 2019

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I. EXECUTIVE SUMMARY

Since its organization in 2007, the Cape & Vineyard Electric Cooperative, Inc. ("CVEC" or the "Cooperative") has worked to develop renewable energy projects in support of CVEC's goals and objectives of developing and/or owning renewable electric generation facilities and procuring and/or selling long term electric supply or other energy-related goods or services at competitive prices to help stabilize electric rates for CVEC member communities. This Annual Report summarizes CVEC's activities and operations in fiscal year ("FY") 2019.

II. INTRODUCTION

A. Organizational History

CVEC was formed out of a strategic planning process commissioned and undertaken by the Cape Light Compact ("CLC"). CVEC was organized in 2007 with three members: CLC, Barnstable County, and the Town of Barnstable. Currently, CVEC has 20 members consisting of 17 towns, Barnstable and Dukes County, and the CLC. CVEC was formed under Massachusetts General Laws, c. 164, §136. This statute provides for the establishment of energy cooperatives. Section 136 cooperatives can, among other things: (1) purchase and own generation, transmission and other projects and property; (2) enter into contracts and incur liabilities; (3) borrow money, issue notes and bonds; (4) enter into private/public collaboration (contractual); (5) purchase, sell and distribute energy; and (6) sell electricity to any consumer within CVEC member communities.

CVEC's goals and objectives include 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.

B. Current CVEC Members

Since its inception CVEC has grown from its three founding members (County of Barnstable, Cape Light Compact, and Town of Barnstable) to its 20 members as of June 30, 2019. The subsequent CVEC members include Dukes County, and the Towns of Bourne, Brewster, Chatham, Chilmark, Dennis, Eastham, Edgartown, Falmouth, Harwich, Oak Bluffs, Orleans, Provincetown, Sandwich, Tisbury, West Tisbury, and Yarmouth.



III. OFFICERS, BOARD OF DIRECTORS AND STAFF

Listed below are the Directors and Staff as of the end of the FY19, June 30, 2019. Directors who joined CVEC during the course of FY19 are so noted with an asterisk (*).

A. Officers (As of June 30, 2019)

Leo Cakounes, Harwich, President Jennifer Rand, West Tisbury, Vice-President Mike Lorenco, Eastham, Treasurer* Charles Hanson, Brewster, Clerk

B. Board of Directors (As of June 30, 2019)

Austin Brandt, Cape Light Compact
Stephen Lewenberg, Chilmark*
Rosemary Dreger-Carey, Falmouth*
Ron Collins, Orleans
Steve Gavin, Yarmouth
Greg Rounseville, Dennis
Robert Wirtshafter, Chatham*
Kirk Metell, Tisbury
Richard Toole, Oak Bluffs
Tain Leonard-Peck, Duke's County*
Lydia Hamnquist, Provincetown
Betty Hyde-McGuire*, Sandwich
Adam Prince, Eastham*
Vacant, Edgartown

C. Executive Committee (As of June 30, 2019)

Charles McLaughlin, Barnstable Ron Bergstrom, Barnstable County* Chuck Hanson, Brewster Austin Brandt, Cape Light Compact Jennifer Rand, West Tisbury

D. Finance Committee (As of June 30, 2019)

Charles McLaughlin, Barnstable Leo Cakounes, Barnstable County Mike Lorenco, Eastham, Treasurer Steve Gavin, Yarmouth

E. Staff (As of June 30, 2019)

Liz Argo, Manager





Figure 1. CVEC Board Meeting September 2018. Left to right. Austin Brandt, Assistant Administrator, Tatsiana Nickinello, Lydia Hamnquist, Charles McLaughlin, Jr., Chuck Hanson, Larry Cole, John Scott, Manager, Liz Argo, Jen Rand, and Ron Collins

IV. FISCAL YEAR 2019 ACCOMPLISHMENTS

A. CVEC's Initial Initiative, Round 1, Round 2 and Round 3

CVEC continues to manage its portfolio of PV projects built through direct CVEC efforts. At the end of FY19, CVEC's renewable energy projects had provided \$13,771,556 in savings to its towns and participants. The commensurate greenhouse gas reduction is significant as well as critical to a region already impacted by climate change.

Thirty-two projects are now in service as a result of CVEC's 2010 Initial Round, CVEC's 2013 Round 1, and CVEC's 2014 Round 2 PV Initiatives. Together the installations have a capacity of 28.5 megawatts (MW). The total net metered energy value in FY19 from the Initial Round (CVEC-7) and CVEC's Rounds 1 and 2 was \$3,041,878 up from last year's savings of \$2,763,099. The savings and earnings from CVEC's 28.5MW portfolio benefitted 19 governmental entities located on Cape Cod and Martha's Vineyard, including seventeen municipalities, one water district and two school districts.

In the spring of 2019, Alliance Clean Energy began construction of CVEC's PV Initiative Round 3. Round 3 consists of seven additional Behind-the-Meter roof projects, estimated



to have a total capacity of 1 megawatt. Permission to Operate from Eversource is expected by mid-fall of 2019.



Figure 2. Project ribbon-cutting celebration for the CVEC Oak Bluffs Fire Station R3 PV project 5.12.19

B. CVEC's Round 4 PV/Storage Initiative

In 2018 CVEC began collecting candidates for a new CVEC PV/Storage Initiative. The ensuing CVEC Round 4 PV/Storage PV Initiative Request for Proposals (RFP) featured 21 proposed photovoltaic projects on members and other governmental entity's roof tops, parking lots and lands. The RFP was advertised in the fall of 2018 and, as usual, the market responded very enthusiastically to the bundling of projects in a CVEC RFP. Nineteen developers sent in their proposals proposing a total of an estimated 12 megawatts of PV projects. CVEC worked closely with the appointed selection committees from the various participating schools and towns, and in May, 3 developers were selected for contract negotiations. At the close of FY19 contracts were still under negotiation.

Notice of a CVEC Round 5 PV/Storage Initiative was circulated amongst CVEC members and other governmental entities over the summer of 2019. It is anticipated that CVEC's Round 5 PV/Storage Initiative RFP will be advertised in late September 2019.



C. CVEC's Sharing of Net Metering Credits

In addition to providing renewable energy for Cape Cod and Martha's Vineyard's municipalities through project development, CVEC further supports its communities through a unique net metered energy revenue sharing mechanism, developed by CVEC to allow shared benefits. For example, the CVEC Harwich Capped Landfill PV project was built to its fullest capacity with the knowledge that total PV production would exceed Harwich's total kilowatt hour ("kWh") usage. Through the Cooperative, the Harwich Capped Landfill PV project's excess energy is allocated to off-taker participants like Barnstable County and the Town of Provincetown. In this way, Cooperative participants, unable to host large renewable energy projects on their own municipal lands, can lower their electric costs through the purchase of excess net metering credits from their neighbors.

The list of towns or other governmental entities participating as off-takers of CVEC's net metered energy are Barnstable County, Dukes County, Brewster, Chatham, Chilmark, Oak Bluffs, Monomoy Regional School District, Provincetown and Yarmouth.

D. CVEC's Purchase of Net Metered Power

On behalf of CVEC's pool of off-takers, in FY17, CVEC leveraged its position as an energy cooperative by contracting to purchase net metering credits from two off-Cape non-CVEC projects. The purchase included 3MW of net metered energy from an 8MW wind project known as Future Generation Wind ("FGW") located in Plymouth County. Participation in the wind project brought the Cooperative closer to its goal of managing a diversified portfolio of distributed generation projects on behalf of its member towns.



Photo courtesy of Future Generation Wind Figure 3. Photo of FGW wind turbines in Plymouth, MA.



In FY17 and in FY18, CVEC negotiated three additional Power Purchase Agreement (PPA) contracts with two off-Cape developers to bring added net metering credits to Cape & Vineyard governmental entities. CVEC's two contracts with Nexamp, LLC for net metering credits from its 6-megawatt solar farm located in Dartmouth, Massachusetts will allow CVEC to distribute over 3,000,000 kilowatt hours of net metering credits to CVEC's pool of offtakers as well as to three new beneficiaries; the Sandwich Water District, the Harwich Water Department, and the Upper Cape Regional Water Cooperative.



Figure 4. Photo of anchors being installed in preparation for solar racking installation at Dartmouth Farms Solar. Photo courtesy of Nexamp LLC.

CVEC's FY17 contract with Syncarpha LLC on behalf of two additional regional governmental offtakers, the Centerville, Osterville, Marson Mills Fire District and the Cotuit Fire District Water Department (COMM), allowed CVEC to distribute net metering credits to those entities, creating savings to the two Fire Districts of \$323,095 as of the end of FY19.

E. Battery Storage

To further meet the CVEC mission of developing economically viable renewable electric transmission and generation solutions, CVEC continues to move forward on its battery back-up system to be located at the Dennis Yarmouth ("DY") High School Regional Emergency Shelter. The energy storage system will be installed utilizing a \$1.4 million grant awarded to CVEC in 2014 by the Massachusetts Department of Energy Resources under the Community Clean Energy Resilience Initiative ("CCERI").

CVEC, in partnership with the Clean Energy States Alliance ("CESA") and Sandia National Laboratories, completed a Request for Proposals in FY18. In early 2019 CVEC selected Massachusetts developer, Ameresco, as the winning developer to, first, provide



an economic analysis of their proposed battery design, and second, to contract for the proposed turn-key system for DY High's Emergency Shelter.

F. CVEC Community Solar Offering for Member Towns

As part of CVEC's Round 4 PV/Storage Initiative, CVEC is examining a Community Solar offering in partnership with the town of Harwich, for whom it is negotiating a Round 4 PV installation on its Green Communities designated As of Right PV site. If the arrangement with the developer, Con Edison, proves supportable, a Community Solar offering would be extended through Harwich, first to Harwich residents followed by a Cape-wide offering.

A Community Solar offering would provide a solar option to residents who cannot install their own solar for a variety of reasons. The Community Solar arrangement would provide a reduction to the electric costs for those participants who have purchased an option in the Community Solar offering.

G. CVEC Consultant Services

The Town of Dennis, a CVEC member, continues to use CVEC's net metering expertise and services to manage the distribution of the Town's net metering credits from their Dennis capped landfill PV system, a PV system not installed under CVEC management.

Another CVEC member, the Town of Provincetown, also continues to utilize CVEC's services to delineate benefits from their Transfer Station PV system, a system installed by CVEC to operate both Behind-the-Meter and as a net metering credit exporter.

In FY18, the Town of Sandwich also contracted to utilize CVEC's administrative services to aid the Town in transaction management relative to the Sandwich 4 megawatt PV system not installed under CVEC management.

In FY19, the Town of Yarmouth joined in engaging CVEC's services. For the Town of Yarmouth, CVEC's services are extensive, including electric invoice payment submission through the town's MUNIS platform, review and analysis of electric charges, and full accounting of all net metering credit transactions.

The Cooperative invites all members and participants to discuss using CVEC's management services to aid in their processes.

In addition to offering CVEC management services, CVEC seeks to aid town staff, board



members and town administrators in understanding the complexities of net metering credit transactions, by providing training sessions with opportunity to engage CVEC staff and ask specific questions. The annual training sessions are coined "Celebrations" and result in attendees receiving CVEC "Survivor's Awards".





Figure 5. CVEC Survivor's Celebration Training events.

H. CVEC's Electric Car Initiative

Recognizing that 40% of greenhouse gas emissions is attributable to the transportation sector, in March of 2019, CVEC initiated its Electric Car Initiative in association with the Cape Light Compact. Through the efforts of CVEC's Project Coordinator, Evan Melillo, the towns of Aquinnah, Bourne, Chatham, Oak Bluffs, Yarmouth, as well as Barnstable County and Nauset Regional School District submitted applications to the MassEVIP grant program, seeking grants for both electric cars and charging stations. By the end of FY19, applications for six cars and eleven charging stations had been submitted. Mr. Melillo also coordinated with Eversource's "Make Ready" program on behalf of ten towns, meeting with Eversource on-site to aid in the design of twenty-nine free of charge infrastructure upgrades in preparation for charging station installations.



Figure 6. CVEC Manager Liz Argo, Aquinnah Town Administrator Jeff Madison, CVEC consultant Evan Melillo, Aquinnah Board members, Jim Newman and Gary Haley discuss electric car benefits. May 2019.



I. CVEC Operational Administrative Adder

To support CVEC's operations, CVEC routinely imposes a CVEC Operational Administrative Adder. The Adder is included in costs collected to pay project developers' Power Purchase Agreement (PPA) costs. The Adder ranges from \$0.015 to \$0.005 per kilowatt hour.

In one case, however, no Adder existed. Eight Round 1 PV Initiative projects were designated to go operational with no Adder imposed. In late 2014 CVEC recognized it couldn't maintain financial and operational services for all participants at the current level without an Adder also collected on the Round 1 projects. After two years of negotiations, in early 2017, CVEC reached agreements with all Round 1 participants on an Adder of \$0.005 (half a penny) per kilowatt hour of production with all fifteen participants in the Round 1 projects. The income from the Round 1 Adder of just over \$100,000 eliminated a previous gap between CVEC income and expenses.

The same Round 1 Adder continued through FY19 thanks to the support from towns and participants benefitting from the Round 1 projects.

J. Legislative Action

In FY19, Charlie McLaughlin, the CVEC Director representing the Town of Barnstable, led a critical effort on behalf of CVEC to file legislative relief for CVEC ground-mounted projects burdened by the collection, and then prompt reimbursement, of property taxes. As a result, Senator Julian Cyr filed Senate Bill 1632, a bill seeking to give a property tax exemption directly for projects within Dukes and Barnstable Counties on the basis that "it is foolish for a municipality to tax a solar installation when it is receiving the substantial benefits of that clean energy". It is hoped the bill will be taken up by the legislature in the near future.

K. Business Activities

In business news, CVEC renewed its contract for another year of energy consultant services provided by Peregrine Energy Group of Boston, Massachusetts and another year of accounting services provided by Glivinski and Associates of South Yarmouth, Massachusetts.



L. Outreach Activities

CVEC was again active with outreach activities in FY19 with CVEC Manager, Liz Argo, appearing as a panelist at the 2019 Massachusetts Sustainable Communities and Campuses Conference held in Cambridge, MA.



Figure 7. CVEC at the 2019 Massachusetts Sustainable Communities and Campuses Conference in Cambridge. March 2019

Locally, in May of 2019, the CVEC Board of Directors voted to have CVEC join the Advisory Committee of the Cape Climate Change Collaborative. Other organizations participating in the Cape Cod Climate Change Collaborative include the Cape Light Compact, the Center for Coastal Studies, the Association to Preserve Cape Cod, Cape Cod 350.org, and the Cape Cod Commission.

On a local regulatory front, CVEC was active in crafting future planning documents with the Cape Cod Commission. With an FY2019 deadline, the Cape Cod Commission filed its 5-year update of the Regional Policy Plan (RPP) with the Assembly of Delegates in December. Noting that the RPP lacked a focus on energy or Climate Change, CVEC joined similar organizations in recommending that the Assembly of Delegates' vote to send the RPP back for more work. However, the Assembly voted to accept the RPP and, consequently, CVEC worked for the subsequent months to ensure that the Commission's ensuing Comprehensive Economic Development Strategy (CEDS) included updated energy information and action plans to combat climate change. One such action plan adopted in the CEDS was for the Commission to spearhead a carbon database for Cape Cod. To aid in that effort, CVEC brought forward Boston University professor, Richard Reibstein, who engineered a report on options for data collection and reporting which was shared with the Commission.



As in the past year, in the fall of 2018 and in the spring of 2019, CVEC took the lead in orchestrating the annual "Cape and Island Wide Energy Committees Meeting". Thirty energy committee members from twelve towns, including the town of Nantucket, assembled at the Cape Light Compact offices to network, discuss prospects, coordinate efforts and compare accomplishments.



Figure 8. Annual All Cape & Island- Wide Energy Committees Meeting. June 2019



V. DATA REVIEW: PREVIOUS YEARS & FY19 REVIEW

A. Energy Benefits

Annual production from CVEC's 32 existing PV projects continues to exceed contracted guaranteed annual outputs. FY19 production totaled 38,796,693, well over the FY18 kWh total of 31,997,745. The lower production in FY18 was attributed to weather related poor solar insolation during winter and spring of 2017/2018. Fortunately, 2018/2019 weather was beneficial for solar production. For further details see Attachments A – E at the rear of the FY19 Annual Report.

At the end of FY19, total to date savings from all 32 CVEC-installed projects totaled \$13,093,961 with FY19 savings alone totaling \$3,041,878.

In addition to CVEC's project benefits, FY19 saw benefits from the off-Cape projects from which CVEC buys net metering credits in the amount of \$295,641. The Future Generation Wind Project, the Syncarpha Marie's Way project and the Nexamp Dartmouth 1 project benefits also exceeded those in FY18. Participating entities receiving these benefits include fourteen CVEC town members, as well as the Barnstable Fire District, the Monomoy School District, the Dennis Yarmouth Regional School District ("DYRSD"), the Centerville, Osterville, Marston Mills Fire District (COMM) and the Cotuit Fire District Water Department.

With the addition of purchased Net Metering Credits from the above named off-Cape developments, total to date savings to CVEC participants in FY19 equaled \$13,771,557 with FY19 savings alone totaling \$3,337,519.

B. Environmental Benefits

CVEC's projects, both those CVEC has installed and those from which CVEC purchases net metering credits, deliver 34.5 MW of renewable power. The renewable energy from CVEC's PV Initiatives provides not only financial benefits but educational and environmental benefits to the 21 participating municipal and governmental hosts and off-takers. Environmental benefits from the 34.5 MW of solar energy are estimated to offset over 60 million pounds of carbon equivalent annually. A carbon offset of this size is equal to taking 5,825 cars off the road each year. It is also equal to powering 3,285 homes every year or eliminating the need for 363 tankers of gasoline!



FY19 Carbon Offsets Equal to:



Figure 9. Equivalency calculations from EPA Energy Resources Calculator

VI. SUMMARY

In FY19 CVEC delivered over \$3,337,519 in savings to CVEC members and participants. With the addition of CVEC's work towards a battery back-up system for the DY High School Regional Emergency Shelter, the near construction completion of CVEC's Round 3 1MW PV Initiative, a new 12 MW Round 4 PV/Storage Initiative under negotiation, and the posting of the Round 5 PV/Storage Initiative, CVEC is progressing steadily towards its objective of developing renewable energy and providing significant benefits and grid stabilization to the ratepayers in CVEC's communities.



Figure 9. Group Photo at Earth Day 2015 Celebration for Completion of CVEC Round 1 & 2 Initiatives held at the CVEC Barnstable Municipal Airport PV installation. Photo courtesy of Sarah Coleman and Amar Rambhadjan



^{*} http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results

CVEC Project FY19 Benefits (using a NMC value of ~ \$0.17 or cost of electricity of \$0.20) * Equivalency calculation from EPA Energy

Initiative Project Group	Name Plate Rating for Initiative	kWh Production in FY19	kWh Production in FY18	Net Savings in FY19**	Net Savings in FY18
Round 1 (8 projects)	16,205 kW (16 MW)	19,261,806	17,422,967	\$1,681,260	\$1,486,579
Round 2 (6 projects)	9,453 kW (9.5 MW)	10,535,967	11,468,827	\$1,003,456	\$1,016,137
Round 2 Small BTM (11 projects)	2,144 kW (2.14 MW)	2,874,132	2,205,137	\$298,782	\$216,834
ConEdison Solutions (7 projects)	760.67 kW (.76 MW)	891,321	900,814	\$58,380 (\$0.20**)	\$45,490 (\$0.185**)
Future Generation Wind (4 turbines)	3,000 kW (3MW)	2,194,648	2,416,639	\$110,443	\$110,960
Syncarpha - Marie's Way (1 project)	2,176 kW (2.18 MW)	2,292,594	2,472,584	\$139,908	\$134,351
Nexamp Dartmouth 1 (1 project)	717 kW (.717 MW)	746,225	499,323	\$45,289	\$30,802
FY18 TOTALS (32 CVEC Projects)	34.5 MW	38,796,693 kWh in FY19	37,386,291 kWh in FY18	\$3,337,519 Savings in FY19	\$3,039,211 Savings in FY18
TOTALS to DATE	34.5 MW	158,804,856 kWh To Date		\$13,771,557 To Date	

 $Resources\ Calculator:\ \underline{http://www.epa.gov/cleanenergy/energy-resources/calculator.html\#results}$ **(using cost of electricity for BTM or annual NMC for Virtual Metering)





Photo courtesy of Sandy Cashen

Figure 10. Station Avenue School Children pose with CVEC PV installation at DY High School Ground Mount.



VII. FISCAL YEAR 2019 FINANCIALS

A. CVEC Unaudited Preliminary Balance Sheet for FY 2019

	Cape & Vineyard Electric Cooperative, In				
09/21/19 Accrual Basis		Balance Sheet			
		As of June 30, 2019			
		Jun 30, 19			
ASSETS		301130, 13			
Current Assets					
Checking/Savings	- CLC LOC Account	100,239.02			
		-			
10005 - TD Mon	•	25.00			
10000 - Clearing 10001 - Century	•	(140,699.17)			
		226,039.75			
10002 · Century	•	121,823.42			
	Disbursements 0974	193,229.27			
10004 - CC5 Che	-	100.13			
Total Checking/Savi	-	500,757.42			
Accounts Receivable					
11000 - Account	ts Receivable	1,019,614.35			
11100 - Account	ts Rec - Pass-through	61,239.95			
Total Accounts Reco	elvable	1,080,854.30			
Other Current Asset	В				
12200 - CFC Co	mmerciai Paper Investment	150,000.00			
12800 - Rent De	posit	1,500.00			
12000 - Undepo	sited Funds	30,963.48			
12500 - Accrued	Revenue	136,799.28			
12700 · Prepaid	Insurance	7,546.90			
12710 · Prepaid	Expenses	650.06			
Total Other Current	Assets	327,459.72			
Total Current Assets		1,909,071.44			
TOTAL ASSETS		1,909,071.44			
LIABILITIES & EQUITY					
Liabilities					
Current Liabilities					
Accounts Payat	ole				
20000 - Acc	ounts Payable	1,191,999.60			
21000 - Acc	ounts Payable - Pass throu	gh 61,239.95			
Total Accounts	Payable	1,253,239.55			
Credit Cards	-				
20100 - Cen	tury Bank Credit Card	(287.65)			
Total Credit Car	ds	(287.65)			
Other Current L	labilities	(25.55)			
	er Accd Exp & AP	123,761.69			
	rued Liabilities	1,844.67			
Total Other Cun		125,606.36			
Total Current Liabilit		1,378,558.26			
Total Liabilities					
		1,378,558.26			
Equity 32000 - Unrestricted	Not Assets	204 045 45			
	Not Appell	381,916.45			
Net Income		148,596.73			
Total Equity TOTAL LIABILITIES & EQUIT		530,513.18 1,909,071.44			
TOTAL CIADICITIES & EQUIT		1,303,07 1.44			



B. CVEC Unaudited Income & Expenses for FY 2019

09/21/19 Accrual Basis

Cape & Vineyard Electric Cooperative, Inc. Profit & Loss

July 2018 through June 2019

	Jul '18 - Jun 19
Ordinary Income/Expense	
Income	
40000 · Project Income	4,434,194.51
44300 · Services Income	41,000.00
44450 · On Peak Hours Resources Income	28,845.06
45000 · Operational Adders	303,125.15
Total Income	4,807,164.72
Gross Profit	4,807,164.72
Expense	
6732 · Forward Capacity Market Expense	8,978.75
63800 · Food (Board lunches, etc.)	951.09
63750 · Internet, Telephone & IT	3,648.10
64500 · One Time Non-Recurring Expenses	1,263.76
63790 · CCERI Grant Expense Acct	7,133.50
60000 - Project Expense	4,435,849.01
62790 · Payroll Expenses	92,150.79
62710 · Legal Fees	(9,508.38)
62700 · Audit Fees	16,900.00
62720 · Consultant Costs	54,125.00
62730 · Bank Fees	2,525.92
62735 · Conference Expense	40.00
62744 · Filing Fees	150.00
62750 · Insurance Expense	13,910.04
62760 · Travel Expense	4,576.64
62800 · Miscellaneous	0.00
63000 · Misc. Office Operating Expenses	22,686.76
63600 · Office Rental	7,440.00
64000 · Professional Development	415.00
Total Expense	4,663,235.98
Net Ordinary Income	143,928.74
Other Income/Expense	
Other Income	
44500 · Interest Income	5,123.99
Total Other Income	5,123.99
Other Expense	
81000 - State Income Tax	456.00
Total Other Expense	456.00
Net Other Income	4,667.99
et Income	148,596.73



Attachment A

CVEC INITIAL INITIATIVE (CVEC-7) PROJECTS' DETAILS

SITE	Name plate in Kilowatts	Output in Kilowatt hours FY19	Commercial Operation Date	Estimated Behind the Meter Savings since 2010
Barnstable High School	131	154,102	August 23, 2010	\$ 57,455
Eddy Elementary School (Brewster)	100.98	124,329	July 16, 2010	\$ 44,382
Stony Brook Elementary School (Brewster)	100.98	119,902	July 16, 2010	\$ 45,195
Eastham Elementary School	100.8	110,359	February 27, 2010	\$ 41,860
Eastham DPW	80.4	87,199	February 25, 2010	\$ 34,255
Bourne Middle School	142.56	168.073	April 30, 2010	\$ 66,086
Harwich Elementary School	103.95	127,357	July 22, 2010	\$ 46,812
TOTAL	760.67	891,321		\$ 336,045

Table 1. Table Describing CVEC Solar PV Initial Initiative



Attachment B

CVEC ROUND 1 PROJECTS' DETAILS

SITE	Name plate in Kilowatts	Estimated Annual Output in Kilowatt hours (EAO)*	Commercial Operation Date	Savings FY19 (NMC \$\$ less Costs)	Savings to Date
Barnstable Landfill	4,171	4,814,040	September 15, 2014	\$441,202	\$1,754,541
Brewster Landfill	1,231	1,364,580	September 15, 2014	\$117,366	\$435,154
Chatham Landfill	1,837	1,749,600	September 29, 2014	\$208,398	\$722,695
Eastham Landfill	587	563,876	April 23, 2014	\$66,588	\$420,760
Edgartown's Nunnepog	1,442	1,459,802	June 6, 2014	\$92,002	\$568,363
Edgartown's Katama Farm	1,271	988,020	June 6, 2014	\$105,585	\$646,824
Harwich Landfill	4,492	5,265,717	August 1, 2014	\$545,486	\$1,999,263
Tisbury Landfill	1,174	1,217,332	July 29, 2014	\$104,634	\$474,686
TOTAL	16,205	17,422,967		\$1,681,260	\$7,511,396

Table 2. Table Describing CVEC Solar PV Initiative Round 1



^{*} Estimated Annual Outputs ("EAOs") as per recent project owner calculations (not per contractual obligations).

Attachment C

CVEC ROUND 2 PROJECTS' DETAILS

*(BTM stands for Behind the Meter)

		(BTM stands for Be	mina the meter)		
SITE	Name plate in Kilowatts	Estimated Annual Output in Kilowatt hours (EAO)**	Commercial Operation Date	Savings FY19 (NMC \$\$ less Costs)	Savings to Date (Estimates for BTM projects)
Barnstable Airport	5,735	6,968,400	April 3, 2015	\$686,062	\$2,239,981
Barnstable Fire District	934	1,098,478	April 21, 2015	\$102,502	\$338,666
Barnstable Senior Center (BTM)*	136	163,206	December 2, 2014	\$20,700	\$71,752
Barnstable High School (BTM)*	463	417,578	October 8, 2014	\$49,063	\$156,267
West Villages Elementary School, Barnstable (BTM)*	39	44,538	October 8, 2014	\$3,442	\$14,602
Bourne Community Center (BTM)*	37	40,732	August 30, 2014	\$4,226	\$16,174
Chatham Police Station (BTM)*	22	27,417	August 30, 2014	\$2,856	\$10,156
Chatham Town Hall Annex (BTM)*	22	28,953	August 30, 2014	\$3,651	\$10,996
DY High School Roof, Yarmouth	590	513,808	March 6, 2015	\$48,985	\$175,889
DY High School Ground, Yarmouth	690	815,444	April 14, 2015	\$68,957	\$230,236
Ezra Baker School, Dennis (BTM)*	71	68,647	August 30, 2014	\$7,975	\$26,591
M.E. Small School Ground, Yarmouth	832	991,740	February 27, 2015	\$94,767	\$328,562
Mattacheese School Roof, Yarmouth (BTM)*	209	227,225	December 16, 2014	\$23,907	\$70,143
Wixon School Ground, Dennis (BTM)*	403	458,335	December 8, 2014	\$50,057	\$181,233
Orleans Capped Landfill	554	697,104	May 15, 2015	\$48,907	\$178,557
Provincetown Transfer Station (BTM)*	152	214,667	December 15, 2014	\$21,033	\$84,528
West Tisbury Capped Landfill	708	897,661	January 5, 2015	\$65,146	\$270,694
TOTAL	11,597	13,673,933		\$1,302,238	\$4,405,028

Table 3. Table Describing CVEC Solar PV Initiative Round 2 (*BTM stands for Behind the Meter)



^{**} Estimated Annual Outputs ("EAOs") as per recent project owner calculations, (not per contractual obligations).

Attachment D

PARTICIPANT REPORT FOR ALL CVEC INITIATIVES & POWER PURCHASES

(Participants are both Offtakers and Hosts)

CVEC Net Metering: FY 2019 Report

Totals by Year

	kWh	Avg NMC Rate	NMC/BTM credit	Developer Cost	CVEC Admin Cost	Net Benefit
FY 2017	38,615,550	\$0.15	\$5,901,095	(\$2,971,459)	(\$188,134)	\$2,741,501
FY 2018	37,226,654	\$0.17	\$6,213,182	(\$2,905,677)	(\$280,157)	\$3,026,954
FY 2019	38,796,693	\$0.17	\$6,660,164	(\$3,023,551)	(\$299,392)	\$3,337,519

FY 2019 by Participant

Dartisiaant	kWh	NMC/BTM credit	Developer Cost	CVEC Admin Cost	Revenue Sharing	Net Benefit	
Participant Airport	1,357,332	\$230,627	(\$84,765)	(\$14,137)	\$277,169	\$408,893	Host with Offtaker (Barnstable)
Barnstable	11,279,684	\$1,938,282	(\$769,579)	(\$89,865)	(\$277,169)	\$801,669	Host and Offtaker from Airport
Barnstable County	1,206,452	\$205,059	(\$104,857)	(\$7,559)	(\$36,951)	\$55,693	Offtaker
Barnstable Fire Dist	397.166	\$67.117	(\$24,219)	(\$6,203)	\$32,903	\$69,599	Host with Offtakers
Bourne	203,813	\$40,763	(\$25,154)	(\$373)	\$0	\$15,235	Host
Brewster	2,505,762	\$432,475	(\$227,899)	(\$12,244)	(\$22,577)	\$169,756	Host and Offtaker
Chatham	2,688,788	\$458,937	(\$200,062)	(\$14,567)	(\$9,747)	\$234,859	Host and Offtaker
Chilmark	62,141	\$10,565	(\$5,096)	(\$493)	(\$1,953)	\$3,022	Offtaker
COMM FD	1,944,120	\$332,495	(\$194,412)	(\$19,441)	\$0	\$118,642	Offtaker
Cotuit	348,474	\$59,598	(\$34,847)	(\$3,485)	\$0	\$21,266	Offtaker
Dukes County	75,081	\$12,744	(\$5,627)	(\$531)	(\$3,293)	\$3,293	Offtaker
DYRSD	1,243,191	\$232,063	(\$86,861)	(\$19,473)	\$84,460	\$210,189	Host with Offtaker (Yarmouth)
Eastham	726,457	\$128,378	(\$63,965)	(\$2,645)	\$8,879	\$70,648	Host with Offtakers
Edgartown	2,054,605	\$348,323	(\$190,918)	(\$10,273)	\$25,227	\$172,359	Host with Offtakers
Harwich	3,565,848	\$607,951	(\$253,175)	(\$17,829)	\$104,270	\$441,216	Host with Offtakers
Monomoy Schools	1,475,899	\$254,719	(\$155,004)	(\$9,515)	(\$16,010)	\$74,191	Offtaker
Oak Bluffs	396,602	\$67,430	(\$34,855)	(\$2,589)	(\$11,261)	\$18,725	Offtaker
Orleans	546,144	\$91,515	(\$36,925)	(\$5,683)	\$0	\$48,907	Host
Provincetown	1,319,285	\$229,152	(\$114,011)	(\$9,234)	(\$29,380)	\$76,527	Host and Offtaker
Tisbury	1,251,210	\$212,319	(\$114,236)	(\$6,256)	\$6,404	\$98,231	Host with Offtakers
West Tisbury	620,256	\$103,093	(\$40,149)	(\$6,456)	\$4,329	\$60,817	Host with Offtakers
Yarmouth	3,528,383	\$596,559	(\$256,934)	(\$40,542)	(\$135,301)	\$163,782	Offtaker
Grand Total	38,796,693	\$6,660,164	(\$3,023,551)	(\$299,392)		\$3,337,519	

 $Participants\ include\ hosts\ of\ solar\ projects\ and\ off takers\ of\ net\ metering\ credits\ from\ solar\ projects\ hosted\ by\ others.$



Attachment E

ANNUAL COMPARISONS FOR ALL CVEC INITIATIVES & POWER PURCHASES

Annual Comparisons

Net Benefits By System

Round	System Name	FY 2017	FY 2018	FY 2019
1	Barnstable Landfill 1	\$225,650	\$242,036	\$244,589
	Barnstable Landfill 2	\$156,955	\$175,911	\$196,612
	Brewster Landfill	\$97,612	\$97,469	\$117,366
	Chatham Landfill	\$183,613	\$145,561	\$208,398
	Eastham Landfill	\$43,694	\$48,518	\$66,588
	Harwich Landfill	\$451,160	\$459,819	\$545,486
	Katama Farm	\$73,385	\$69,101	\$105,585
	Nunnepog Well	\$77,176	\$86,611	\$92,002
	Tisbury Landfill	\$189,267	\$161,552	\$104,634
2	Airport - Section 2	\$541,007	\$631,446	\$686,062
	Barnstable Fire District	\$79,598	\$95,397	\$102,502
	Barnstable HS	\$39,901	\$42,450	\$49,063
	Barnstable Senior Ctr	\$19,447	\$19,428	\$20,700
	Bourne Community Ctr	\$4,203	\$4,217	\$4,226
	Chatham Annex	\$2,173	\$2,853	\$3,651
	Chatham Police Station	\$2,726	\$2,702	\$2,856
	DY High Roof Mount	\$59,026	\$39,401	\$48,985
	DYHS Ground Mount	\$53,760	\$64,854	\$68,957
	Ezra Baker School	\$7,039	\$6,761	\$7,975
	Marguerite Small School	\$81,318	\$88,508	\$94,767
	Mattacheese School	\$21,872	\$21,950	\$23,907
	Orleans Landfill	\$50,524	\$57,879	\$48,907
	Provincetown Transfer	\$24,744	\$23,175	\$21,033
	West Tisbury Landfill	\$62,479	\$78,054	\$65,146
	West Villages School	\$3,695	\$4,527	\$3,442
	Wixon School	\$40,510	\$41,217	\$50,057
CVEC-7	Barnstable HS (CVEC-7)	\$8,637	\$8,097	\$10,093
	Bourne MS (CVEC-7)	\$8,206	\$8,724	\$11,009
	Eastham DPW (CVEC-7)	\$4,193	\$4,473	\$5,711
	Eastham ES (CVEC-7)	\$5,075	\$5,760	\$7,228
	Eddy School (CVEC-7)	\$5,514	\$5,846	\$8,143
	Harwich ES (CVEC-7)	\$6,101	\$6,346	\$8,342
	Stoney Brook School (C	\$4,638	\$6,243	\$7,854
Other	First Generation Wind	\$57,768	\$110,960	\$110,443
	Nexamp		\$25,151	\$45,289
	Syncarpha	\$48,837	\$133,955	\$139,908
Grand T	otal	\$2,741,501	\$3,026,954	\$3,337,519

Net Benefits By Participant

Participant	FY 2017	FY 2018	FY 2019
Airport	\$322,440	\$376,342	\$408,893
Barnstable	\$672,852	\$747,552	\$801,669
Barnstable Co	\$40,539	\$51,741	\$55,693
Barnstable Fir.	\$54,047	\$64,775	\$69,599
Bourne	\$12,409	\$12,942	\$15,235
Brewster	\$133,771	\$143,548	\$169,756
Chatham	\$199,212	\$167,690	\$234,859
Chilmark	\$1,625	\$2,341	\$3,022
COMM FD	\$41,418	\$113,607	\$118,642
Cotuit	\$7,418	\$20,348	\$21,266
Dukes County	\$2,739	\$2,954	\$3,293
DYRSD	\$194,002	\$184,388	\$210,189
Eastham	\$50,101	\$52,282	\$70,648
Edgartown	\$129,399	\$131,963	\$172,359
Harwich	\$364,921	\$371,925	\$441,216
Monomoy Sch	\$38,808	\$65,942	\$74,191
Oak Bluffs	\$12,359	\$16,749	\$18,725
Orleans	\$50,524	\$57,879	\$48,907
Provincetown	\$59,346	\$72,577	\$76,527
Tisbury	\$177,684	\$151,665	\$98,231
West Tisbury	\$58,327	\$72,867	\$60,817
Yarmouth	\$117,561	\$144,878	\$163,782
Grand Total	\$2,741,501	\$3,026,954	\$3,337,519



