

Cape& Vineyard Electric Cooperative, Inc. ANNUAL REPORT FISCAL YEAR 2012 July 1, 2011- June 30, 2012

Prepared September 2012

Revised October 31 and November 27 2012

Cape & Vineyard Electric Cooperative, Inc. P.O. Box 427 / 3195 Main Street Barnstable, MA 02630 508-375-6648 www.cvecinc.org



Table of Contents

I. EXECUTIVE SUMMARY	3
II. INTRODUCTION	3
A. Cape & Vineyard Electric Cooperative, Inc History	3
B. Cape & Vineyard Electric Cooperative, Inc Members	4
III. OFFICERS, BOARD OF DIRECTORS, AND STAFF	4
A. Officers	4
B. Board of Directors	4
C. Executive Committee	5
D. Staff and Consultants	5
IV. Fiscal Year 2012	
ACCOMPLISHMENTS	5
A. Summary of Activities	5
B. CVEC Photovoltaic Initiative Round 1	
C. CVEC Photovoltaic Initiative Round 2	8
D. CVEC Initial Round	10
E. Study on Avoided Cost of Solar PV on Cape Cod, conducted by Energy Economics, Inc	
V. Fiscal Year 2012 Financials.	
A. CVEC Preliminary Balance Sheet	13
B. CVEC Preliminary Income Statement for Fiscal Year 2012	14



I. Executive Summary

Since its organization in 2007, the Cape &Vineyard Electric Cooperative, Inc. ("CVEC") has worked to develop renewable energy projects in support of CVEC's mission to stabilize electric rates for ratepayers within CVEC member communities. This Annual Report provides information on CVEC's activities and operations in fiscal year 2012.

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's long-term goal is to develop electric generation projects or contracts to stabilize electric rates for all CLC customers. At the time CVEC was formed, the CLC and its members did not have the authority to develop electric generation projects. 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 purposes 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 and consumers within member communities.



B. Current CVEC Members

In July 2011 there were nineteen members of CVEC; the County of Barnstable, Town of Barnstable, Town of Brewster, Town of Harwich, Town of Dennis, Town of Tisbury, Town of Bourne, Town of Eastham, Town of Sandwich, Town of Provincetown, Town of Mashpee, Town of Edgartown, Town of Orleans, Town of Yarmouth, Town of Falmouth, Town of Chatham, Town of West Tisbury, Town of Oak Bluffs and the CLC.

On April 11, 2012 Dukes County joined CVEC, bringing the membership to twenty governmental entities.

III. Officers, Board of Directors and Staff

A. Officers

Charles McLaughlin, Barnstable, President E. Mark Zielinski, Barnstable County, Treasurer Margaret Downey, Cape Light Compact, Clerk

B. Board of Directors

John Checklick, Falmouth Barry Worth, Harwich Larry Cole, Harwich John Cunningham, Brewster, Dean Keuch, Brewster Chuck Hanson, Brewster Rick White. Dennis Peter Cabana, Dukes County Paul O'Keefe, Bourne Kitt Johnson, Edgartown Pam Dolby, Edgartown Martin McDonald, Eastham William Straw, Tisbury Richard Toole, Oak Bluffs Michael Richardson, Mashpee David Gardner, Provincetown

Service Ended June 2012 August 2012 Service Ended October 2011 October 2011 – June 2012 June 2012

Service Ended December 2011



James Killion, Sandwich Steve Gavin, Yarmouth John Scott, Chatham Tim Twombley, West Tisbury

C. Executive Committee

Charles McLaughlin, Barnstable
E. Mark Zielinski, Barnstable County
Margaret Downey, Cape Light Compact
John Checklick, Falmouth
Barry Worth, Harwich (Service Ended June 2012)

D. Staff and Consultants

BCK Law, P.C., Legal Counsel Ron Collins, Staff, Construction Supervisor Argo Consulting, Technical Consultant Barbara Austin, Staff, Administrative Assistant

IV. Fiscal Year 2012 Accomplishments

A. Summary of Activities in Fiscal Year 2012

In fiscal year 2012 CVEC made significant strides towards its mission 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 member communities. CVEC's Photovoltaic Initiatives Rounds 1 and 2 are currently in various stages of permitting with initial construction on both projects slated to begin in 2013. Projections of the first-year estimated annual output of renewable energy after completion of both Rounds 1 and 2 show the Cape and Martha's Vineyard municipalities, Nauset High School, and the DY School District, benefitting from 67,883,210 kilowatt hours of renewable energy. The 2011 total municipal usage of CVEC members, the DY School District, and Nauset High School is 63,277,365 kilowatt hours, and with an historic annual electric increase of .5%, CVEC Rounds 1 and 2 are projected to meet its member municipal loads and the load of DY and Nauset.



The chart below indicates the portion of the total load of 64,315,185 kilowatt hours that will be met by Round 1 and the portion that will be met by Round 2.

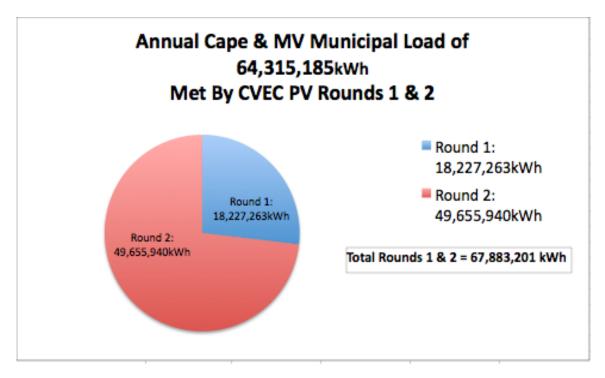


Chart 1. Chart of CVEC Photovoltaic Initiative Projects Round 1 & 2

B. Photovoltaic Initiative Round 1

In October 2010, CVEC issued an RFP for CVEC's Photovoltaic Initiative Round 1. Round 1 consisted of 18 megawatts of proposed photovoltaics on behalf of seven Cape Cod and Martha's Vineyard towns; Barnstable, Brewster, Harwich, Eastham, Chatham, Tisbury, and Edgartown. The proposed ground mounted installations were planned primarily for capped landfills, with two of the proposed ground mounts planned for lands other than landfills. CVEC selected American Capital Energy ("ACE"), to construct and provide a Power Purchase Agreement for the ten PV installations comprising Round 1.





Photo courtesy of Liz Argo

Figure 1. Contractors review example of PV and racking outside the CLC offices at CVEC's PV Initiative Round 1 press conference in 2011.

ACE began the permitting processes for CVEC Round 1 photovoltaic projects in spring of 2011. Interconnection Applications were filed with NSTAR for all of the projects. As of September 15, 2012 commencement of construction on Round 1 projects is awaiting delivery of interconnection costs and schedules from NStar.

TOWN	ТҮРЕ	Address	Size of Installation (Kilowatts DC)	Size of Installation (Kilowatts AC)
Barnstable	Barnstable Landfill	45 Flirt St.	4,044.00	3,416.00
Brewster	Brewster Landfill	201 Run Hill Rd.	1,219.00	1,083.00
Chatham	Chatham Landfill	97 Sam Ryder Rd.	1,908.00	1,500.00
Eastham	Eastham Landfill	255 Old Orchard Rd.	627.00	500.00
Edgartown	Katama Farm Ground Mount	Matakeset Way	1,198.00	1,083.00
Edgartown	Nunnepog Ground Mount	Lovewell Rd.	1,419.00	1,083.00
Harwich	Harwich Landfill	205 Queen Anne Rd.	4,602.00	4,000.00
Tisbury	Tisbury Landfill	59 High Point Ln.	1,226.00	1,083.00

Table 1. Table describing CVEC Photovoltaic Initiative Round 1



Annual Report 2011/2012

C. Photovoltaic Initiative Round 2

CVEC issued an RFP for CVEC's Photovoltaic Initiative Round 2 on September 21, 2011. The Round 2 proposed installations ranged from 10-kilowatt roof mounts to 6-megawatt ground mounts and represented requests for PV from thirteen Cape and Vineyard towns and four non-member governmental entities; DY Schools, Nauset Schools, Mass Military Reserve, and Cotuit, Osterville, and Marston Mills Water/Fire District. The total amount of photovoltaics proposed for installation under CVEC's Photovoltaic Initiative Round 2 advertisement was approximately 69 megawatts.

On April 19, 2012 a press conference was held to announce the award of just over 48 megawatts of proposed photovoltaic installations and Power Purchase Agreements comprising the bid from Broadway Electric Inc.

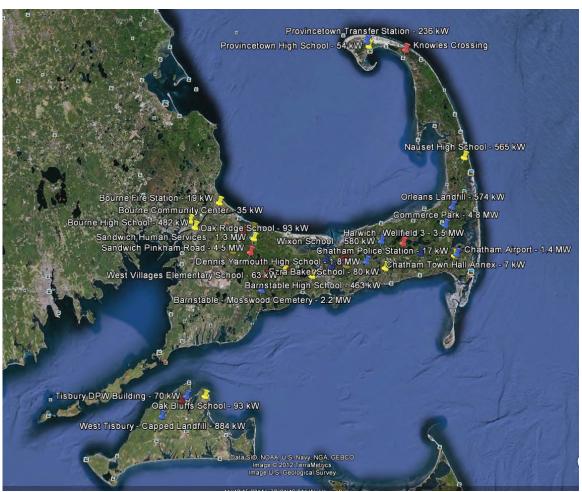


Photo courtesy of Broadway Electric

Figure 2. Map showing location of proposed installations comprising CVEC's PV Initiative Round 2



CVEC's Photovoltaic Initiative Round 2 is in the process of finalizing intermunicipal agreements between member and non-member participants and CVEC. Construction on smaller roof mounts is anticipated to begin in early 2013.

An annual total of 49,655,940 kilowatt hours of clean, renewable energy is anticipated to be delivered to the Cape and Martha's Vineyard from CVEC's PV Initiative Round 2 in year one. Table 2 on page 10 describes further details of Round 2.



TOWN	ТҮРЕ	Address	Size of Installation (Kilowatts)	Estimated Annual Kilowatt Hours (EAO)
Barnstable	Airport - Section 1, Site A	479 Barnstable Rd, Hyannis	2,266.20	3,319,520
Barnstable	Airport - Section 2, Site B	480 Barnstable Rd, Hyannis	5,212.46	6,935,010
Barnstable	Barnstable Senior Center	825 Falmouth Road, Hyannia	140.36	186,770
Barnstable	Barnstable High School	744 West Main St., Hyannis	462.55	537,940
Barnstable	West Villages Elem. School	760 Osterville West Barnstable Rd, Marston Mills	62.64	77,480
Barnstable	Independence Park	145 Breed's HIII Rd., Barnstable	3,336.74	4,438,840
Bourne	Community Center	239 Main St., Buzzards Bay	35.09	42,420
Bourne	Fire Station	51 Meetinghouse Lane, Sagamore	19.14	22,420
Bourne	Bourne High School	75 Waterhouse Rd., Bourne	481.69	438,230
Brewster	Commerce Park	Freeman's Way Industrial Park, Brewster	4,606.36	6,127,810
Chatham	Airport	240 George Ryder Rd., Chatham	867.68	1,154,570
Chatham	Police Station	249 George Ryder Rd., Chatham	17.40	31,180
Chatham	Town Hall Annex	261 George Ryder Rd., Chatham	6.96	33,010
DY Sch. District	DY High School	210 Station Ave., S. Yarmouth	1,276.00	1,697,510
DY Sch. District	DY High School	210 Station Ave., S. Yarmouth	641.19	750,970
DY Sch. District	Ezra Baker School	810 Rte. 28, W. Dennis	79.46	97,030
DY Sch. District	Marguerite Small School	440 Higgins Crowell Rd., W. Yarmouth	861.30	1,145,780
DY Sch. District	Mattacheese School	400 Higgins Crowell Rd., W. Yarmouth	1,499.30	1,833,310
DY Sch. District	Mattacheese School	400 Higgins Crowell Rd., W. Yarmouth	213.73	360,300
DY Sch. District	Wixon School	901 Route 134, S. Dennis	459.36	703,690
Nauset Sch. Dist.	Nauset High School	100 Cable Road, N. Eastham	564.63	678,740
Orleans	Orleans Landfill	56 Lots Hollow Road, Orleans	574.20	755,000
Provincetown	Transfer Station	90 Race Point Rd., Provincetown	153.12	199,860
Tisbury	DPW Bldg.	115 High Point Lane, Tisbury	70.18	92,220
West Tisbury	West Tisbury Landfill	47 Old Stage Road off State Road, West Tisbury	883.96	1,175,950
Orleans	Orleans Watershed Land	56 Lots Hollow Road, Orleans	854.92	909,860
Sandwich	Pinkham Rd. Well Site # 11	97 Pinkham Road, S. Sandwich	4,548.94	6,051,610
Sandwich	Discovery Hill	North of Klah's Way, near Route 130, Sandwich	4,871.13	6,480,230
Tisbury	Septage Area	at end of Old Holmes Hole Rd, Tisbury	529.54	704,490
Yarmouth	Wellfield 20, 24	24 Higgins Crowell Rd., W. Yarmouth	1,399.80	1,782,800
Yarmouth	Wellfield 23	24 Higgins Crowell Rd., W. Yarmouth	669.90	891,400

Table 2. Table of CVEC Photovoltaic Initiative Projects Round 2



D. Photovoltaic Initiative, Initial Round

CVEC began its photovoltaic initiative by issuing an RFP in 2009. The selected vendor was ConEdison Solutions. In 2010 ConEdison Solutions installed 761 kilowatts of PV on 6 Cape Cod School roofs and 1 DPW roof.

The following table summarizes benefits accruing to CVEC members and all ratepayers since the "Initial Round" of PV projects was commissioned in 2010.

CVEC PV SOLAR PROJECT									
CON ED SOLUTIONS SITES									
PRODUCTION & BENEFITS					CAPACITY				
				9/13/12	FACTOR	\$ 0.025			
			APPROX.	PRODUCTION	SINCE	SAVINGS	ENVIRONME	ENTAL BEN	EFITS (lbs)
SYSTEM		SIZE (KW DC)	ONLINE	TO DATE (kWh)	INCEPTION	@ \$0.025/KwH	CO2	Nox	SO2
Barnstable High School	Barnstable	131	August 23, 2010	334,440	14.13%	\$ 8,361.00	577,242	839	2,528
Bourne Middle School	Bourne	142.56	April 30, 2010	469,360	15.80%	\$ 11,734.00	810,115	1,178	3,548
Eddy Elementary School	Brewster	100.98	July 16, 2010	304,413	15.88%	\$ 7,610.33	525,418	764	2,301
Stonybrook Elementary	Brewster	100.98	July 16, 2010	295,472	15.41%	\$ 7,386.80	509,985	742	2,234
Eastham Elementary	Eastham	100.8	February 27, 2010	322,585	14.34%	\$ 8,064.63	556,781	810	2,439
Eastham DPW	Eastham	80.4	February 25, 2010	255,788	14.22%	\$ 6,394.70	441,491	642	1,934
Harwich Elementary School	Harwich	103.95	July 22, 2010	307,409	15.70%	\$ 7,685.23	530,588	772	2,324
		760.67		2,289,467		\$ 57,236.68	3,951,620	5,747	17,308
		kw		kWh		SAVINGS			
						Since Installation			
Source:						in 2010			
Power-One Aurora Vision Website	(FatSpaniel.c	om)							

Table 3. Table of CVEC Initial Photovoltaic Projects from 2010 – Savings and Environmental Benefits

E. Study on Avoided Cost of Solar PV on Cape Cod, conducted by Synapse Energy Economics, Inc.

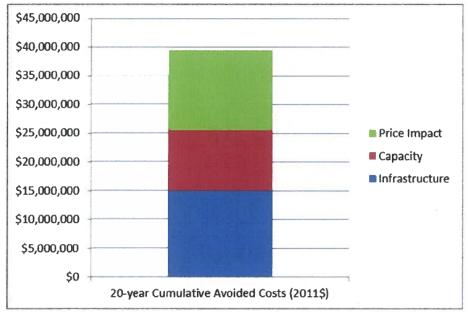
To convey the benefits from CVEC's planned photovoltaic installations, the CLC and CVEC requested that Synapse Energy Economics, Inc. of Cambridge, MA ("Synapse") calculate the avoided costs for Cape and Vineyard ratepayers attributable to the CVEC PV installations.

Synapse has a history of providing research, testimony, reports, and regulatory support to consumer advocates, environmental organizations, regulatory commissions, state energy offices, and others. The firm was founded in 1996 to specialize in consulting on energy, economic, and environmental topics.



The Synapse study delivered in October 2011 points out savings associated with the energy production from CVEC's photovoltaics, and also from infrastructure upgrades (costs for which are born by the PV vendors), the lowered need for heavy-load carrying capacities, and the added pressure for price reductions due to lowered demand for electricity from the utilities. In addition, the study calculated the impact of the CVEC PV projects on carbon emissions.

As portrayed in the chart below, an exemplary 16.5MW of PV was defined by Synapse as capable of saving ratepayers nearly \$40 million in avoided costs over the 20-year term of the contracts.



Courtesy of Synapse Energy Economics

Chart 2. 20-year Cumulative Value of Avoided Costs from 16.5MW of Solar PV Installations on Cape Cod and Martha's Vineyard.

The Synapse study provides a clear demonstration of both the obvious and the less obvious advantages of the CVEC mission to develop renewable energy projects to stabilize electric rates for ratepayers within CVEC member communities.



IV. Fiscal Year 2012 Financials

A. CVEC Preliminary Balance Sheet For Fiscal Year 2012

CAPE & VINEYARD ELECTRIC COOPERATIVE, INC. PRELIMINARY BALANCE SHEET AS OF JUNE 30, 2012

<u>Assets</u>

Current Assets: Cash and cash equivalents Receivables - Members - energy sales Receivables - Members - renewable energy certificates	382,334 30,047 8,120
Total Assets	420,501
Liabilities and Members' Equity	
Current Liabilities:	40.000
Accounts Payable	42,665
Accrued Expenses	20,000
Total Liabilities	62,665
Members' Equity	357,836
Total Liabilities and Members' Equity	420,501



B. CVEC Preliminary Income Statement for Fiscal Year 2012

CAPE & VINEYARD ELECTRIC COOPERATIVE, INC. PRELIMINARY INCOME STATEMENT FOR THE FISCAL YEAR ENDED JUNE 30, 2012

REVENUES	
Grant Revenue	408,000
Member Fee Revenue	25
Interest Income	354
PV Solar Towns Revenue	129,242
PV Solar Adder Revenue	4,990
PV Solar Design/Engineering Support	40,000
PV Solar REC Revenue	59,350
Total Revenues	641,961
EXPENSES	
Legal	233,730
Filing Fees	125
Consulting	33,247
Insurance	14,032
Travel	4,520
Dues	1,200
Salaries	43,160
Taxes	1,060
Supplies/Office Expenses	1,501
Professional Development	0
Engineering	3,325
Power Purchase Agreement	129,242
Renewable Energy Certificates	59,350
Advertising	70
PV Solar Design/Engineering Support	40,000
Miscellaneous	4,037
Total Expenses	568,599
NET INCOME/(LOSS)	73,362

