



C V E C

Electric Cooperative
an intergovernmental partner for energy-related projects

	Annual kWh (millions)
CVEC 7 (7 projects)	0.85
R1 (8 projects, landfills)	19.80
R2 (7 projects)	13.60
R3 (7 projects BTM)	1.00
R4 (13 projects)	10.40
R5 (13 projects)	8.00
R6 (13 projects)	2.00
Total 74 Projects	5.65 MW
BESS (1 Project)	250 KW

CVEC:

- Operates under MGL c. 164, § 136 and § 137, and offers MA government entities a more comprehensive way to procure and manage renewable energy projects.
- Provides project development, from procurement to COD, and then management over the life of the project.
- Offers municipal procurement and project expertise and the ability to bundle multiple projects for multiple towns/participants resulting in economies of scale.
 - The more projects, the lower the procurement costs because they are shared.
 - The number and quality of developer responses generally increases, especially when projects are relatively small.
- Is available to any MA government entity which can enter into an intergovernmental agreement or an energy-related contract, generally.
 - Any municipality or county or political subdivision thereof, or body politic that meets the requirements IRS Code § 115 is eligible to apply for membership.

*Pronounced
See-vec*

Cape & Vineyard Electric Cooperative, Inc.

25 Members: Aquinnah, Barnstable, Barnstable County, Bourne, Brewster, Cape Light Compact, Chatham, Chilmark, Dennis, Dukes County, Eastham, Edgartown, Falmouth, Harwich, Oak Bluffs, Orleans, Marion, Mashpee, Nantucket, Provincetown, Sandwich, Tisbury, Truro, West Tisbury, and Yarmouth.

10 Governmental Participants (to date): Cape Cod Gateway (former Barnstable) Airport, Barnstable Fire District, D-Y Regional School District, Harwich Water District, Monomoy Regional School District, Martha's Vineyard Airport, Nauset Regional School District, Cotuit-Osterville-Marston Mills Fire District, Sandwich Water District, and Upper Cape Regional Water District.

Municipal Procurement Options for Solar and Storage

SMART + Net Metering or AOBC purchase for offtakers

G.L. c. 25A (regulated procurement by DOER w/ DCAMM Bidder Certification)

- IGA between CVEC and member/participant for Lease/construction rights
- EMS Agreement between CVEC and Developer for Sublease/construction rights and purchase of energy or credits
- IGA between CVEC and member/other governmental participant for resale of energy or credits

G.L. c. 30B, §16 (Requires local determinations, exemption for PPA §1(b)(33), OIG Oversight)

- IGA between CVEC and member/participant for Lease/construction rights
- Development Agreement between CVEC and Developer for Sublease/construction rights and purchase of energy or credits
- IGA between CVEC and member/other governmental participant for resale of energy or credits

SMART & Lease Payment Only

G.L. c. 25A (EMS)

- IGA between CVEC and member/participant for Lease/construction rights, flow down of Lease payment from Developer
- EMS Agreement between CVEC and Developer for Sublease/construction rights, and Sublease payment

G.L. c. 30B, §16 (Competitive process under Uniform Procurement Act and Town Meeting if lease 30+ years)

- IGA between CVEC and member/participant for Lease/construction rights, flow down of Lease payment from Developer
- Development Agreement between CVEC and Developer for Sublease/construction rights and Sublease payment

Intermunicipal Agreement

G.L. c. 40, § 4A

- Another municipality with expertise must still follow a procurement process.

Net Metering Credits Only-No System

- G.L. c. 30B, §1(b)(33) (requires reporting to DPU, DOE, & IG)
- Energy contracts for energy or energy-related services
- A procurement process is still required.

SMART + Net Metering or AOBC purchase for offtakers

CVEC In lieu of G.L. c. 30B or G.L. c 25A

G.L. c. 164, §137 (CVEC)

Option 1

- IGA between CVEC and member/ participant for for CVEC to resell the energy
- Lease between the member/participant host and Developer
- PPA between CVEC and the Developer
- [offtakers] IGA between CVEC and member/participant for resale of energy or credits

Option 2

- IGA between CVEC and member/ participant for resale of energy and lease rights/site access.
- Development Agreement between CVEC and Developer for sublease/construction rights and Purchase of energy or credits
- [offtakers] IGA between CVEC and member participant for resale of energy or credits

Option 3

- IGA for net metering credits from other CVEC systems
- IGA or energy-related services agreement to purchase NMC's from third-party projects between CVEC and a developer



Cape Cod Gateway Airport

CVEC begins a ROUND of projects upon receipt of Commitment Letters

Participation Fee (non-refundable installments)

A Project Participant may withdraw before a Phase begins for any reason

CVEC's current procurement model

MGL c. 164, s. 137

Phase 1 Project Evaluation

- CVEC conducts site visit, a makes a preliminary “go-no go” assessment: feasibility and financial analysis*, interconnection evaluations, general building condition, other. (* ownership analysis when warranted)

Phase 2 Request for Proposals

- CVEC prepares, issues and manages all aspects of the RFP
- A team of experienced staff, legal counsel and expert consultants ensure that procurements are well-planned and comprehensive.

Phase 3 Proposal/Developer Selection

- CVEC reviews the proposals, conducts an analysis, confers with the Host and makes a selection one or more developers.

Phase 4 Contract Execution

- CVEC negotiates and facilitates execution of Participant and Developer contracts which CVEC's attorneys have prepared.

CVEC coordinates the construction process and manages the project over its term.

A Participant shares RFP preparation, issuance, selection and contract preparation and negotiation costs with other Round participants.

No capital (or staff) outlay.

CVEC is delighted to be working the Massachusetts Wholesale Electric Corporation on Round 6 and other projects.



CVEC Cape & Vineyard Electric Cooperative, Inc.								FISCAL FY 23 ANNUAL SYSTEMS REPORT								Dated	9.5.23
12-MONTH REPORT with additional reports for projects with offakers																	
NET BENEFITS BY SYSTEM	Commercial Operation Date or Status as of 8.30.23	Service Period	Kwh / Service Period	NMC Value	PPA Rate	Average NMC value	PPA Cost	Last CVEC Admin Rate	Admin Costs	Additional Project Costs, if nny	System Net Revenue (Cost)	Revenue Share to Host, if any	Net Benefit for FTM Projects	Net Benefit for BTM Projects	System Cost IF no solar (Est \$.19/kWh)	Metric Tons of CO ₂ Equivalent	
										RECS to Developer		RECS paid by CLC		Est. \$0.28 NMC x kWh			
CVEC-7																	
Barnstable High School Roof	8.23.10	7.1.31-6.30.23	171,096		\$ (0.13450)		\$ (23,012)			\$ (6,570)	\$ (29,582)	\$ 6,570		\$ 24,894	\$ (32,508)	73.9	
Bourne Middle School	4.30.10	7.1.31-6.30.23	185,669		\$ (0.13450)		\$ (24,972)			\$ (6,975)	\$ (31,947)	\$ 6,975		\$ 27,015	\$ (35,277)	80.2	
Brewster Eddy Elementary	7.16.10	7.1.31-6.30.23	122,466		\$ (0.13450)		\$ (16,472)			\$ (4,995)	\$ (21,467)	\$ 4,995		\$ 17,819	\$ (23,269)	52.9	
Brewster Stoney Brook Elementary	7.16.10	7.1.31-6.30.23	132,442		\$ (0.13450)		\$ (17,813)			\$ (5,085)	\$ (22,898)	\$ 5,085		\$ 19,270	\$ (25,164)	57.2	
Eastham DPW	2.25.10	7.1.31-6.30.23	97,352		\$ (0.13450)		\$ (13,094)			\$ (3,690)	\$ (16,784)	\$ 3,690		\$ 14,165	\$ (18,497)	42.1	
Eastham Elementary	2.27.10	7.1.31-6.30.23	108,239		\$ (0.13450)		\$ (14,558)			\$ (4,635)	\$ (19,193)	\$ 4,635		\$ 15,749	\$ (20,565)	46.8	
MRSD Harwich Elementary	7.22.10	7.1.31-6.30.23	138,098		\$ (0.13450)		\$ (18,574)			\$ (5,175)	\$ (23,749)	\$ 5,175		\$ 20,093	\$ (26,239)	59.7	
ROUND 1																	
Barnstable Landfills 1&2	9.15.14	5.19.22-6.18.22	5,431,320	\$ 1,563,693	\$ (0.07290)	\$ 0.28770	\$ (395,943)			\$ (10,416)	\$ 1,157,334		\$ 1,157,334	\$ (1,031,951)		2,346.3	
Brewster Landfill	9.29.14	6.7.22-7.6.23	1,605,900	\$ 454,111	\$ (0.07100)	\$ 0.28323	\$ (136,502)			\$ (16,528)	\$ 301,081		\$ 301,081	\$ (305,121)		693.7	
Chatham Landfill	4.23.14	6.6.22-6.5.23	2,257,920	\$ 611,743	\$ (0.07170)	\$ 0.28698	\$ (156,782)			\$ (15,525)	\$ 439,436		\$ 439,436	\$ (429,005)		975.4	
Eastham Landfill	6.6.14	6.2.22-6.1.23	752,580	\$ 210,055	\$ (0.07070)	\$ 0.28052	\$ (53,207)			\$ (8,602)	\$ 148,245	\$ 9,075	\$ 157,320	\$ (142,990)		325.1	
Edgartown Katama Farms	6.6.14	6.28.22-7.27.23	1,495,260	\$ 441,732	\$ (0.09040)	\$ 0.29084	\$ (135,171)			\$ (6,441)	\$ 300,120		\$ 300,120	\$ (284,099)		646.0	
Edgartown Nunnepog Landfill	8.1.14	6.21.22-6.20.23	1,438,380	\$ 461,692	\$ (0.09860)	\$ 0.28897	\$ (155,455)			\$ (4,527)	\$ 301,710	\$ 83,970	\$ 385,680	\$ (273,292)		621.4	
Harwich Capped Landfill	7.29.14	6.8.22-6.7.23	5,963,400	\$ 1,691,870	\$ (0.07100)	\$ 0.28410	\$ (423,401)			\$ (59,299)	\$ 1,209,170	\$ 242,468	\$ 1,451,637	\$ (1,133,046)		2,576.2	
Tisbury Capped Landfill	4.3.15	6.7.22-6.6.23	1,538,460	\$ 435,400	\$ (0.09130)	\$ 0.28318	\$ (140,461)			\$ (13,718)	\$ 281,221	\$ 18,050	\$ 299,272	\$ (292,307)		664.6	

Over the life of the project, a Participant can rely on CVEC to administer the project; e.g., billing, contract/developer oversight. CVEC charges an administrative “adder” per kWh generated for monitoring the project contract terms (under a penny per kWh)

The economics of a PPA or Lease?

Or ownership?

Does a municipality need Net Metering Credits or Cash?

- Projects over 1MW are likely to receive the cash value of NMC from Eversource.
- The value of NMC varies monthly.
- A lease payment is fixed.
- Electricity usage varies annually.
- NMCs need to be monitored at least semi-annually.
- The developer lease offer is likely to drop when interest rates and/or the cost of equipment cost of equipment goes up (tax credits)
- The developer lease agreement is likely to include conditions for price changes before COD.

Does the municipality have land to Host a large-scale project and have offtakers?

Is the municipality committed to renewable energy regardless of cost?

- What are the incentives for solar?
- What are the incentives for storage?
 - Revenue streams include ISO-NE On-Peak Hours Resources, Connected Solutions, and Clean Peak. The facility is also eligible for Capacity Tag Savings.

Additional factors that can affect PPA and lease prices.

- Interconnection Costs
- Supply-chain availability and costs
- Location of system
- The impact of federal and state incentives

When a system is over 1 MW and the distribution company pays out the cash-value of NMCs, the PPA with the developer can be more valuable than a lease when the value of NMCs rise.

CVEC Electric Cooperative					CVEC FISCAL YEAR SUMMARY REPORT				
23 H2 Whites Path, Suite 2, South Yarmouth, MA 02664 Tel 508.619.7691					FY 23				
System	Category			Service From	Service To		Report Date		
Harwich Landfill	Cash-Out w Ots			6.8.22	6.8.23		6.29.23		
System Totals									
kWh Service Period	Avg NMC Rate	Total NMC	Developer Rate/kWh	FY Developer Cost	Last CVEC Admin Rate	FY Admin Cost	Fiscal Yr Benefit before Taxes		
5,963,400	\$ 0.28	\$ 1,691,869.66	(0.07100)	\$ (423,401.40)	\$ -	\$ -	\$ 1,268,468.26		
Host Benefits and Costs per Service Period									
	Percent	kWh	NMC Rate	NMC	Developer Rate	Developer Cost	Revenue Share to Host	Net to (from) Host	
Host Benefits and Costs per Service Period	61.77%	3,683,592.18	1,045,067.89	\$ (261,535.04)	\$ -	\$ (261,535.04)	\$ 242,467.71	\$ 1,026,000.55	
Offtaker Benefits and Costs (if applicable)									
Fill in Ots if any. If none leave blank	Percent	kWh	NMC	Developer Cost	CVEC* Admin Cost	Revenue Share to Host	Total Costs	Net to (from) Participant	
Barnstable County	8.38%	499,732.92	\$141,778.68	\$ (35,481.04)	\$ -	\$ (53,148.82)	\$ (88,629.86)	\$ 53,148.82	
Brewster	5.15%	307,115.10	\$ 87,131.29	\$ (21,805.17)	\$ -	\$ (32,663.06)	\$ (54,468.23)	\$ 32,663.06	
Chatham	2.22%	132,387.48	\$ 37,559.51	\$ (9,399.51)	\$ -	\$ (14,080.00)	\$ (23,479.51)	\$ 14,080.00	
Chilmark	0.40%	23,853.60	\$ 6,767.48	\$ (1,693.61)	\$ -	\$ (2,536.94)	\$ (4,230.54)	\$ 2,536.94	
Dukes County	0.68%	40,551.12	\$ 11,504.71	\$ (2,879.13)	\$ -	\$ (4,312.79)	\$ (7,191.92)	\$ 4,312.79	
Oak Bluffs	2.56%	152,663.04	\$ 43,311.86	\$ (10,839.08)	\$ -	\$ (16,236.39)	\$ (27,075.47)	\$ 16,236.39	
Provincetown	6.65%	396,566.10	\$112,509.33	\$ (28,156.19)	\$ -	\$ (42,176.57)	\$ (70,332.76)	\$ 42,176.57	
Yarmouth	12.19%	726,938.46	\$206,238.91	\$ (51,612.63)	\$ -	\$ (77,313.14)	\$ (128,925.77)	\$ 77,313.14	
Total	38.23%	2,279,807.82	\$646,801.77	\$ (161,866.36)	\$ -	\$ (242,467.71)	\$ (404,334.06)	\$ 242,467.71	
System Total	100.00%								

When a project issues the credit (not cash), CVEC assists by amending Schedule Z.

EVERSOURCE

Customer Name: CVEC INC. ID 2189
 Account Number: 2927-722-0017
 Co/Rate: 70 / 6033 (G1 General)

Credit Allocation

Amount Allocated to Others	\$32,660.54	100.00%
Amount Host Keeps	\$0.00	0.00%
Total	\$32,660.54	100.00%

Allocatee Account #	Credit Amount	Percentage
1 1381-146-0016	\$757.72	2.32%
2 1405-951-0017	\$251.48	0.77%
3 1428-503-0012	\$581.35	1.78%
4 1487-366-0014	\$1,384.80	4.24%
5 1528-480-0016	\$689.13	2.11%
6 1529-092-0014	\$13,733.84	42.05%
7 1529-788-0013	\$45.72	0.14%
8 1530-086-0010	\$5,780.91	17.70%
9 1532-936-0018	\$290.67	0.89%
10 1656-990-0018	\$4,033.57	12.35%
11 2725-826-0010	\$78.38	0.24%
12 2846-465-0010	\$2,384.21	7.30%
13 2880-967-0020	\$950.42	2.91%
14 2909-081-0010	\$1,273.76	3.90%
15 2949-748-0011	\$424.58	1.30%

Ownership?

Does the municipality have the financing, collaborations, risk tolerance, and/or interest to own its own solar PV and/or storage?

Is the PPA net energy price the driver, or is Net Zero goals?



U.S. DEPARTMENT OF THE TREASURY

The Inflation Reduction Act *Until the Inflation Reduction Act introduced these new credit delivery mechanisms, governments, many types of tax-exempt organizations, and even many businesses could not fully benefit from tax credits like those that incentivize clean energy construction. Baseline 30% DIRECT PAY earned by new solar electricity projects for solar and/or storage (stand-alone) and placed in service before 2033.*

- Additional "bonus" credits
- Additional 10% "stackable" credits

Economic Analysis

- Value of Direct pay, offset by:
 - Insurance Costs
 - O&M Costs
 - Financing costs
 - Municipal capital planning and operations
 - Supply chain issues
- Expert tax/financing/operations advice required
- MassDevelopment
 - MMWEC
 - Banks
 - Other consultants

Operational Analysis

- Internal staff capacity and expertise in renewable projects
- Value of collaborations, partnerships or contractors
- Availability and reliability of O&M staff
- Supply chain issues
- Project timing, phase-down results in reduced credits
- Evaluation of existing solar and storage and capacity
- Evaluation of capital priorities
- Infrastructure and Interconnections

Challenges, and changes with the IRA

Challenges:

- Fluctuating value of NMCs
- Availability and cost of repair parts
- Trained labor shortages
- Age of buildings
- Integration with plans (HVAC) for upgrades
- Availability of land/properties
- Access to property
- Utility Infrastructure Upgrades
- Interconnection Costs
- Insurance costs
- Availability and interest of financing partners
- Treasury's slow release of regulations

Changes with the IRA:

- The direct pay option requires CVEC and municipalities to make an economic analysis and an operational analysis regarding ownership.



Oak Bluffs Elementary School Roof & BESS



Nauset Regional Middle School Canopy & BESS

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