

# Cape Light Compact Governing Board Meeting

**DATE:** Wednesday, June 11, 2014

**LOCATION:** Rooms 11&12, Superior Courthouse, Barnstable

**TIME:** 2:00 – 4:30 p.m.

## AGENDA

2:00 Open Session Vote on Entry into Executive Session and Required Declarations of the Chair - M.G.L. c. 30A, Section 21 (a)(10): Power Supply Procurement Strategy Discussion (confidential and competitively sensitive information) and M.G.L. c. 30A, Section 21 (a)(3) and Section 21(a)(10): DPU 14-69 (discussion of litigation strategy and related power supply issues)

2:45 Public Comment

2:55 Approval of Minutes

3:00 DPU 14-69 Public Discussion

3:30 Presentation/Discussion on Energy Efficiency Penetration Study

4:00 Treasurers' Report

4:10 Discussion/Potential Vote on FY15 Operating Budget

4:30 Chairman's Report

Administrator's Report

1. Board Meeting Schedule: July 9<sup>th</sup> next meeting, updates to BOS/Council
2. FY14 Expense Reports Due
3. Solar on Affordable Homes

CVEC Update

**Cape Light Compact Governing Board  
Wednesday, May 21, 2014  
Open Session Meeting Minutes**

The Governing Board of the Cape Light Compact met on Wednesday, May 21, 2014 in Rooms 11 & 12, Superior Court House, 3195 Main Street, Barnstable, MA 02630.

**PRESENT WERE:**

1. Dr. Joyce Flynn, Chairwoman, Yarmouth
2. Robert Schofield, Vice-Chair, Bourne
3. Peter Cocolis, Treasurer, Chatham
4. Barry Worth, Secretary, Harwich
5. Peter Cabana, Member at Large, Dukes County
6. David Anthony, Barnstable
7. Deane Keuch, Brewster
8. Timothy Carroll, Chilmark – remote participation by phone
9. Brad Crowell, Dennis until 3:02 p.m.
10. Fred Fenlon, Eastham
11. Thomas Mayo, Mashpee
12. Ronald Zweig, Falmouth
13. Richard Toole, Oak Bluffs
14. Everett Horn, Sandwich
15. Richard Elkin, Wellfleet
16. Thomas Donegan, Provincetown
17. Peter Fontecchio, Truro
18. Susan Hruby, W. Tisbury

**ABSENT WERE:**

Michael Hebert, Aquinnah  
William Doherty, Barnstable County  
Edgartown - Vacant  
Orleans, Vacant  
William Straw, Tisbury

**LEGAL COUNSEL:**

Audrey Eidelman, Esq., BCK Law, PC

**STAFF PRESENT:**

Margaret Downey, Compact Administrator  
Margaret Song, Residential Program Manager  
Briana Kane, Sr. Residential Program Coordinator  
Matthew Dudley, Residential Program Coordinator  
Lindsay Henderson, Marketing & Data Analyst  
Meredith Miller, C&I Program Manager  
Vicki Marchant, C&I Program Analyst  
Nicole Price, C&I Program Planner  
Stephan Wollenburg, Sr. Power Supply Planner  
Philip Moffitt, EM&V Manager  
Gail Azulay, EM&V Analyst  
Deborah Fitton, Energy Education Coordinator  
Kimberly Deisher, Customer Service Representative  
Karen Loura, Administrative Assistant

**OTHERS PRESENT:**

Alec Stevens, Demand Management Institute (DMI)  
Rob Bialobrzeski, Demand Management Institute (DMI)  
Liz Argo, Special Projects Coordinator, CVEC  
E. Mark Zielinski, County Treasurer, CVEC Treasurer

**MEDIA & PUBLIC PRESENT:**

Ed Maroney, Barnstable Patriot Newspaper Reporter  
Patrick Cassidy, Cape Cod Times Newspaper Reporter  
Dr. Kathy Sherman, Brewster Resident  
Peter Kenney, Yarmouth Resident  
Robert Palmeri, Yarmouth Resident  
James Rogers, Sandwich Resident present and audio recording the meeting  
Eric Bibler, Weston CT Resident present and audio recording the meeting

Chr. Flynn called the meeting to order at 2:00 p.m.

**PUBLIC COMMENT**

P. Kenney, Yarmouth made public comments about Cape Light Compact not publishing its proposed FY 15 Operating Budget.

**CONSIDERATION OF MEETING MINUTES**

The Board then considered the March 12, 2014 Open Session Meeting Minutes. *R. Schofield moved the Board vote to accept the minutes as presented, seconded by B. Worth and voted unanimously in favor with F. Fenlon, P. Fontecchio and S. Hruby abstaining (15-0-3).*

**PRESENTATION/DISCUSSION ON GREEN COMMUNITIES AUDIT APPROACH**

N. Price Voudren introduced Alec Stevens and Rob Bialobrzeski, of Demand Management Institute (DMI) who perform ASHRAE Level II Audits on behalf of Cape Light Compact. She also provided a Power-point presentation entitled Energy Assessments for Municipalities. (Attachment A) She said Board approval and vote will be sought at the next meeting. R. Elkin asked about requirements of ASHRAE II for Wellfleet. S. Hruby gave her experience with Green Communities in W. Tisbury. She said she is satisfied but received incorrect direction to obtain quotes which was a step not needed. The State and Towns are learning and so is Cape Light Compact. She believes Cape Light Compact is proceeding in the right direction. R. Elkin asked about the time lapse between the state green communities application and audit. P. Cabana responded about 2 years because they did not get all of the information needed during the first year. He said significant detail about consumption and a determination as to the extent (in percentage) that can be saved is required by the state. He provided a summary of the history of the Tisbury Green Communities Application. Towns do not have the funding to get the management piece done. The State has issued a \$50,000 Grant to Tisbury to fund a full-time Energy Manager. This demonstrates that the State recognizes the need and that Towns do not have funds available. It has generally taken 2-3 months' turn-around time for an audit. Account numbers, a priority list of buildings, etc. are needed. S. Hruby recommended Town's seeking State contributions be sure to request an amount sufficient enough to cover costs. Also talk with Seth Pickering, DOER, Green Communities Division Southeast Regional Coordinator. Discussion ensued about the costs. R. Zweig asked if there are other entities in Mass. or within the Country to incorporate. N. Price reported that NSTAR and National Grid's Programs were reviewed.

**TREASURERS' REPORT**

R. Cocolis distributed copies of EE Budget and the 5/21/14 Year to date Operations Budget Report and provided a review of highlights. He reported an 84% completion of the Operations Budget in period 10 of the FY 14 term. He spoke about projected funding shortages in salaries & retirement/insurance due to an overlap in filling Sr. Power Supply Planner Position. There is a supplemental budget request to provide for this. #2 is retirement

and insurance. The line item formerly described as Association Dues which has been used to pay sponsorships has been re-named “Sponsorships” which was part of the Auditor’s recommendation to clarify the chart of accounts. The LED Streetlight appropriation will be moved forward FY15 operating budget. Energy Efficiency dollars cannot be used for Streetlight repairs and/or maintenance. \$150,000 is being appropriated to pay for repairs if needed. LED Streetlight Retrofit Program is about half complete at this time. .

**DISCUSSION/POTENTIAL VOTE ON FY14 SUPPLEMENTAL BUDGET**

The Board then considered the request for a supplemental budget appropriation to cover the cost of overlap salaries during the Senior Power Supply Planner position transition. M. Downey explained request. B. Schofield read motion. *B. Crowell moved the Board vote to approve a supplemental budget for the Compact’s FY14 operating budget in the amount of \$35,000 for salaries and \$15,000 for fringes. The total amount of the supplemental budget request is \$50,000, seconded by P. Cocolis and voted unanimously in favor by roll call vote (18-0-0).*

**DISCUSSION AND POTENTIAL VOTE ON FY15 OPERATING BUDGET**

The Board then reviewed the proposed FY 15 Operating Budget. Peter Cocolis provided an overview and noted that the Board typically discussed the budget at one meeting and votes on it at the next meeting. The Board will be meeting in June so this process can continue.

S. Wollenburg provided a Power-point presentation explaining Renewable Energy Certificates (REC’s). (Attachment B) At the time Cape Light Compact purchased REC’s, it was in effort to sign longer term contracts as a means to provide a hedge and because generator discounts are frequently available if the buyer is willing to sign longer term contracts. M. Downey explained the reason for buying REC’s and the Board’s then strategy. Cape Light Compact’s contracts for RECs, except for the CVEC contract, end at the end of March, 2015. CVEC Renewable Energy Contracts continue through 2025. It is an open discussion whether Cape Light Compact wants to take on RPS obligations which ramp up over time. The Board may consider having that greater insight to load could provide a means to reduce volatility and reduce rates. J. Flynn asked about the movement within the CLC Green Program. S. Wollenburg reported participation is relatively stable but there is a slow and stable decline. He said staff is working on a few ideas of ways to increase participation. He said enrolling in CLC Green is one way people can make sure consumption is being met with renewable energy. He said there is preliminary thought about doing something like the solarize schools initiative. He said REC’s tend to sell at or well below the Alternate Compliance Payment (ACP).

*At 3:02 p.m. B. Crowell left the meeting.*

M. Zielinski reported CVEC is moving into the implementation phase of Phase I PV project installation. He said CVEC will begin to see systems come online as part of the project they have been working on for so long. The systems represent substantial benefits for the towns in Net Metering Credits. NSTAR will use cash out method of accounting. He said CVEC members are proud of the benefit going to the towns. He said the Town of Eastham Ribbon Cutting Ceremony is scheduled for May 28th. Several members expressed appreciation to CVEC and asked about the possibility of developing additional renewable energy projects. The Board previously agreed to fund CVEC through 2015 and can decide to continue to provide funding beyond if desired. . P. Cabana said CVEC work on renewable energy is a great thing and more should be done in the future. P Cocolis asked about CVEC Legal Fees. M. Zielinski responded they were higher than expected largely due to contract amendments/expense.

P. Cocolis asked about viability and the request for a \$100,000 loan. The request is to provide cash in the short-term as systems come on line and until the cash flow begins and NM credits are issued. This request is to provide a cushion for CVEC upon which to draw if needed to be repaid @ 1.1% interest over 6 months.

**DRAFT MINUTES – SUBJECT TO CORRECTION, ADDITION AND BOARD APPROVAL.**

This is a one-time request being made to manage start-up. CVEC expects everything will be running smooth and correctly calculated.

M. Zielinski reported CVEC has contracted with Peregrine for \$50,000.00 for 14 months w/a 3-year renewable option for accounting support services. Peregrine will set up a QuickBooks® database for AR/AP.

S. Hruby urged the Board to look for similar opportunities as with CVEC. She said this will significantly help stabilize energy costs for towns. She said it is huge for the Town of W. Tisbury and for small towns where there is not a lot of money.

M. Downey urged the Board to consider providing educational signs and noted she will be seeking estimates to have signs made and installed which provide information on energy saved in each community and indicating the arrays are made possible by Cape Light Compact grant to CVEC. These would be permanent fixtures helping to identify and demonstrate another value brought to communities by Cape Light Compact. There was discussion about placement and visibility of signs. R. Zweig said there are internet real time displays and suggested the Board may want to consider that as well. L. Argo said a link will be provided and publicized to track production. She praised Cape Light Compact because through the NM Credit opportunity has taken full advantage of State incentives.

T. Mayo asked if Barnstable County is considering funding OPEB responsibility completely. M. Zielinski said he does not see County fully funding the ARC.

R. Zweig asked about the interest charge of 1.1%. L. Argo indicated this was set by financial bookkeeper and was suggested by bank. It is taken from a quote for a 3- month period. *R. Toole moved the question.* D. Anthony questioned impact of a delay of voting on the Budget. M. Downey said there is no impact to delay voting on the CLC Operating Budget. *R. Toole moved the Board vote to approve a grant to CVEC in the amount of \$403,455 for its operating budget, seconded by B. Worth.* Discussion followed. *The Board then voted unanimously in favor by roll call (17-0-0)*

*R. Toole then moved the Board vote to approve a loan to CVEC in the amount of \$100,000 for cash flow protection during the potential delay in NSTAR payment of net metering credits. The interest rate shall be 1.1% on a 6-month period, and the loan shall be prepayable, seconded by R. Schofield.* Discussion followed. *The Board then voted unanimously in favor by roll call (17-0-0).*

*3:55 p.m. P. Kenney, E. Bibler, J. Rogers, K. Sherman left the meeting.*

There was lengthy discussion about Other Post-employment Benefits (OPEB) requirements and the Compact's OPEB Reserve Budget. S. Hruby said it is irresponsible to not fund OPEB. M. Downey reported the \$300,731 FY15 appropriation is initial funding reserve from the Compact's audited financial statements and will need to be refined through the Actuarial Study. The proposed amount covers all existing and retired Compact staff (i.e. energy efficiency and power supply). T. Mayo said OPEB is calculated based on all employees retiring. A subsequent vote by the Board will be required to move the money into an irrevocable trust. T. Mayo said very few other public entities are actually funding. This item has been designed in good faith to show ability.

There was discussion relative to the average legal budget amount compared to similar other organizations/entities. *T. Mayo moved to delay voting on the Cape Light Compact Operating Budget to the next meeting, seconded by D. Anthony.* There was discussion concerning the impact of delaying voting to the June 11, 2014 meeting. It was determined no negative impact would occur to delay voting. *The Board then unanimously voted unanimously in favor to defer voting on the budget to the next meeting.*

*4:15 p.m. - 4:20 p.m. Recess*

**ENERGY EFFICIENCY PROGRAM**

• **Discussion and Potential Vote on Quashnet Schools Cap**

N. Price Voudren reviewed the request to waive the 150K incentive cap for the Mashpee Quashnet School Comprehensive Retrofit Program and provided project facts summary. There was discussion about the budget. R. Zweig supporting the waiver asked to know what other projects may be upcoming which might require large expenditures. M. Downey agreed to provide a list prospective projects which may warrant incentive cap waivers as they are identified. Provincetown may have a project which qualifies at the High School and Resco projects potentially for Falmouth Schools. The cap was set with initial Energy Efficiency Plan and was considered very high at the time. It was intended so that the Board would hold discussion relative to Municipal projects. S. Hrubby asked if an affirmative vote would bump other projects. N. Price responded there is plenty of room in the budget to accommodate other projects. *P. Cabana moved the Board vote to approve the waiver of the \$150,000 incentive cap for the Mashpee Quashnet School Comprehensive Retrofit Project, thereby allowing a total project incentive of \$305,795, seconded by P. Cocolis and voted unanimously in favor by roll call vote (17-0-0)*

• **Presentation on Behavior/Energy Monitoring Initiative**

B. Kane provided Power-point Presentation to update the Board on the Behavior Initiative. (Attachment C) She reported a \$10,000 budget. The Board consensus was to distribute prizes among all the participants vs. cash prizes to top 3.

• **Discussion and Potential Vote on Municipal Incentive Cap**  
Item tabled to next meeting.

**CHAIRMAN’S REPORT**

J. Flynn expressed appreciation to those who provided input at the May 14, 2014 DPU 14-69 Revised Aggregation Plan Hearing held at the Mashpee Public Library. It was noted that the attendees of the hearing were overwhelmingly in support of the Compact and Compact programs

**ADMINISTRATOR’S REPORT**

M. Downey reported:

- The next Board Meeting is scheduled to take place on June 11, 2014
- DPU 14-69 Aggregation Plan Revisions - comments period closed on 5/16/14. A conference call is scheduled with the DPU next week. Response to Information Requests is due tomorrow (5/22/14). It was discussed that the Compact will file a motion to strike comments that are not accurate.

**CVEC UPDATE**

- E. Mark Zielinski provided a Cape & Vineyard Electric Cooperative Update. Eastham PV PH I System has been deployed and generating electricity. Additional Phase I PV systems are scheduled to come on-line rapidly.

At 5:00 p.m., *P. Cocolis moved the Board vote to adjourn, seconded by T. Carroll and voted unanimously in favor.*

Respectfully submitted,

Karen E. Loura  
Administrative Assistant

Reviewed by Barry Worth, Secretary on: May 30 2014

List of Materials used:

- Board Meeting Agenda
- Draft meeting minutes from March 12, 2014
- FY14 Supplemental Budget Request
- FY15 Proposed Cape Light Compact Operating Budget
- ASHRAE II Audit Presentation
- Renewable Energy Certificates Presentation
- Behavior Initiative Presentation
- CVEC Proposed Grant request to support their FY15 operations.

DRAFT MINUTES – SUBJECT TO CORRECTION, ADDITION AND BOARD APPROVAL.

Attachment A

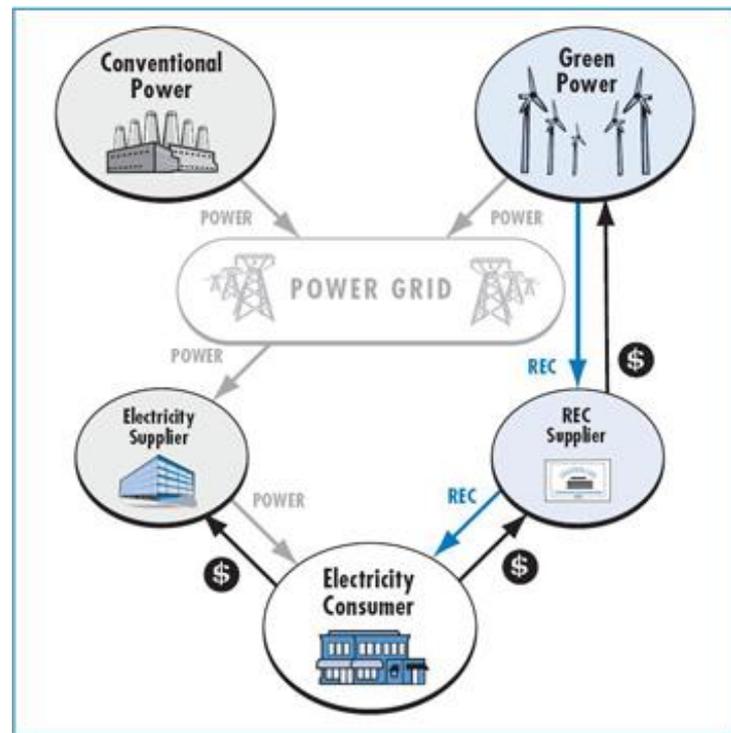
# Cape Light Compact REC Background

Compact Board Meeting  
May 21, 2014



# What is a REC?

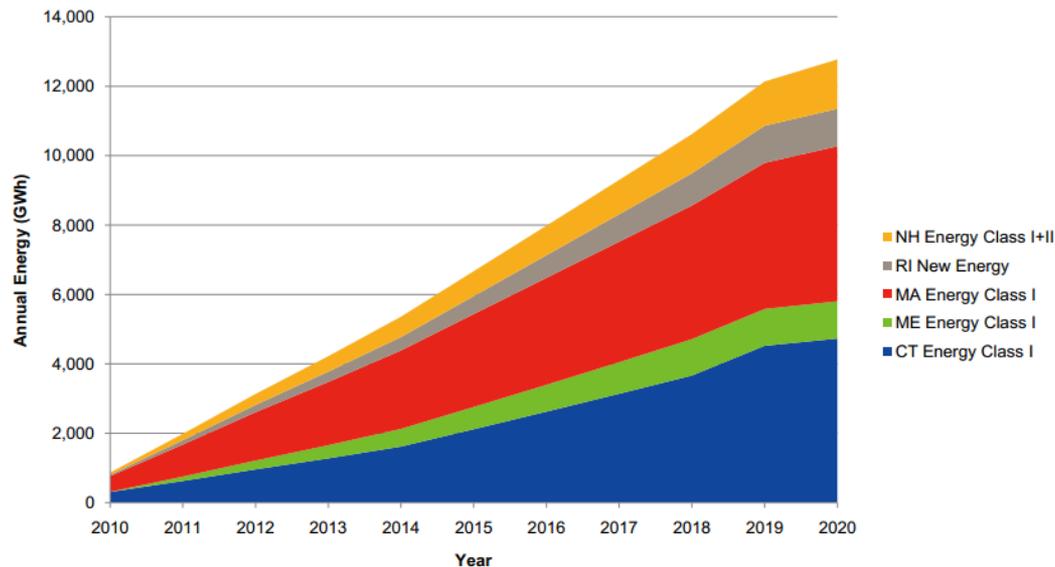
- A renewable energy certificate (REC)
- Represents all of the environmental attributes of renewable generation
- Used for RPS compliance (or retired voluntarily)
- Tracked in NEPOOL GIS



# Why did CLC buy RECs?

- For use in CLC Green
- To hedge RPS compliance costs of aggregation

## ISO Projection of Cumulative NE New RPS by State

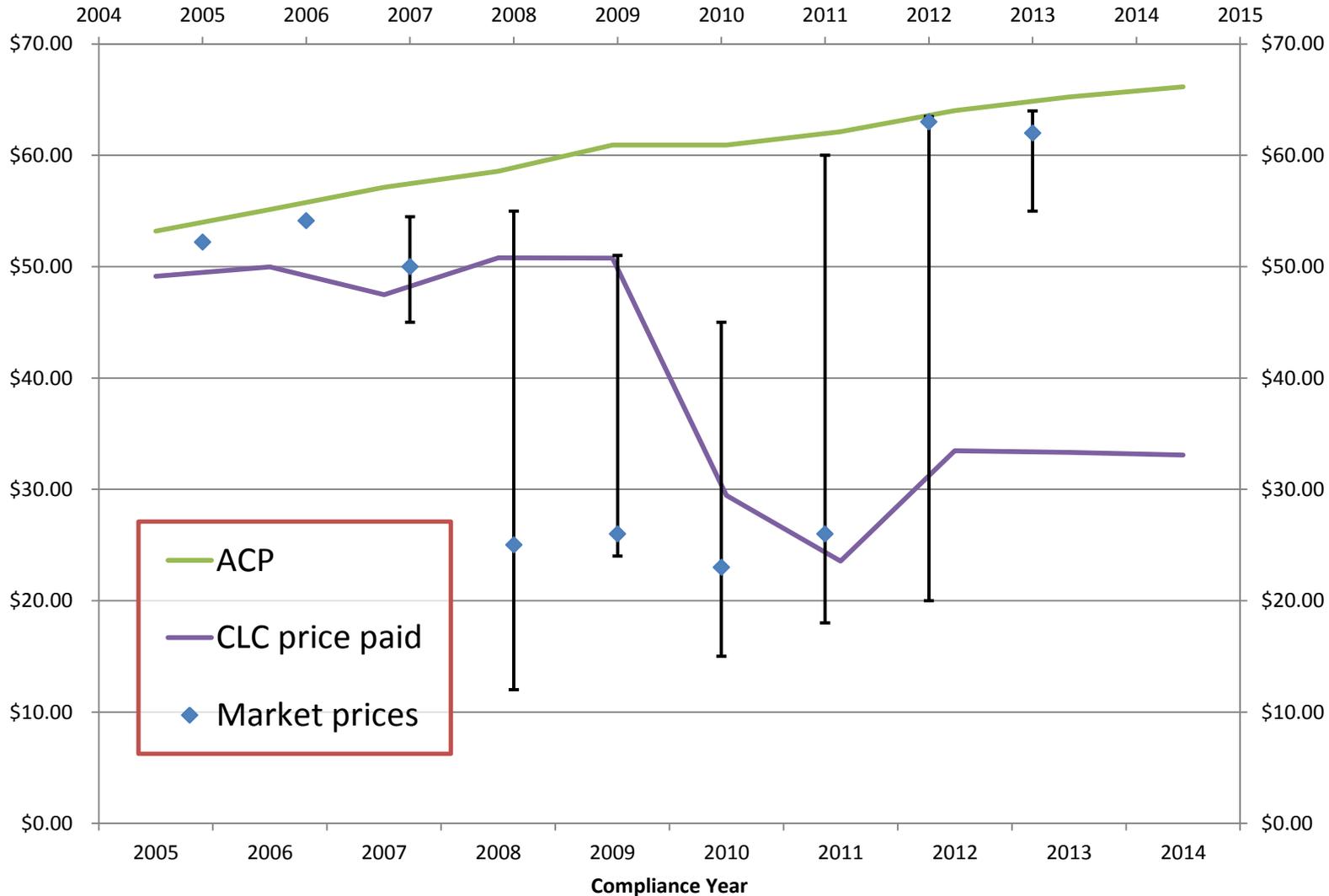


# History

- Originally, Compact was responsible for purchasing RECs for RPS obligation
- When spot market prices fell, Board decided that they wanted supplier to be responsible for RPS RECs
- Compact was already under contract for RECs beyond what was required for CLC Green
- Excess RECs sold



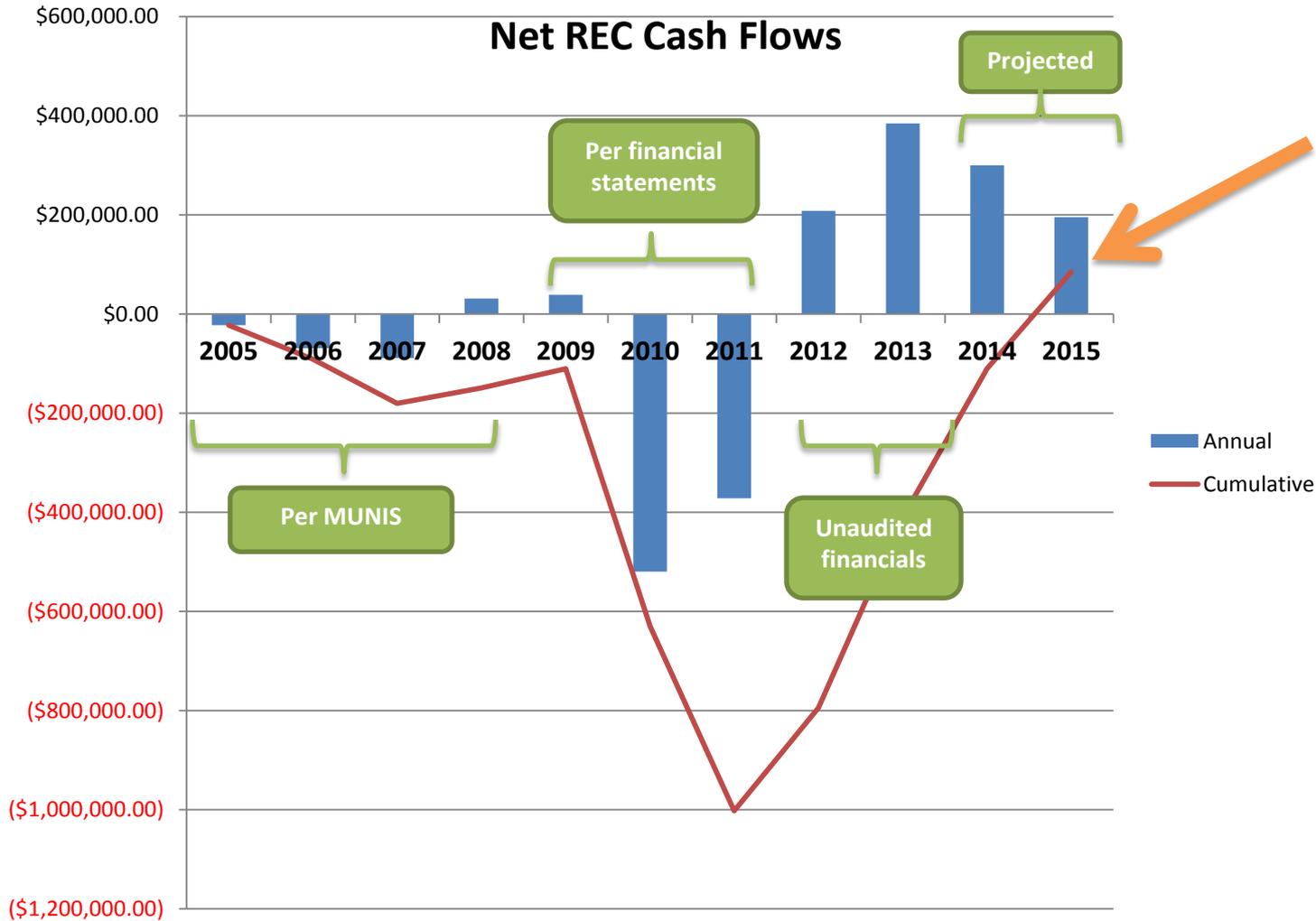
# A look at pricing



Notes – all numbers are estimates – REC markets are not very liquid. Ranges based on reported prices (brokers reports or web). “Blue diamond” represents best guess at average paid in market. 2005-2006 – ACP minus transaction costs. ‘07 – average of reported prices. ‘08-’10 – NH RPS report. Other – price reported closest to close of trading period.



# Financials of RECs



**Projected cumulative net REC cash flows: \$85,000**

**Notes**

- Numbers exclude RECs purchased and used for *CLC Green*
- 2010 \$ number on graph is \$52,500 lower than in financials, as a revenue that was not attributable to REC sales was reclassified to the correct fund.
- 2014 and 2015 are projected.

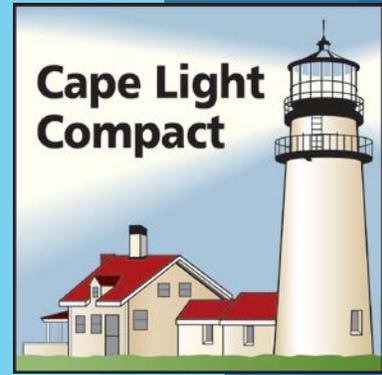


# Looking forward

- All but the Compact's contract with 750 kW of CVEC PV expire by March 31, 2015
- A small number of additional RECs will be needed for CLC Green – Chief Procurement Officer will negotiate for these
- CLC Board may consider whether it would want to resume purchasing RECs for RPS compliance



ATTACHMENT B



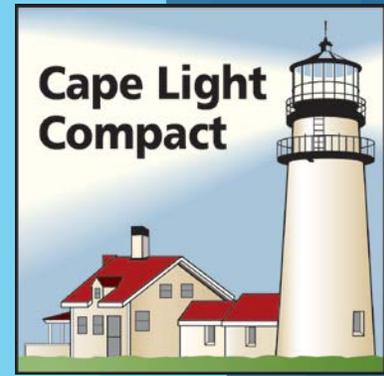
# Energy Assessments for Municipalities

A New Approach



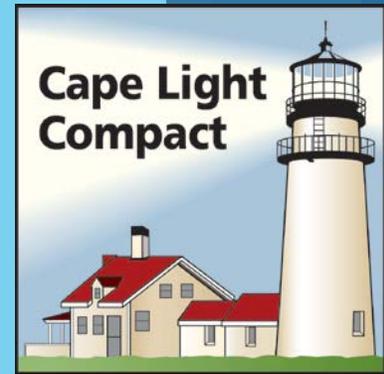
# What are we currently doing?

- ▶ ASHRAE Level I and II audits for municipal buildings
- ▶ Prescribed approach with specific detailed requirements per ASHRAE Standard, as “required” by DOER for grant opportunities
- ▶ Identifies potential opportunities in buildings, but also provides extensive analysis of building operation & utility usage



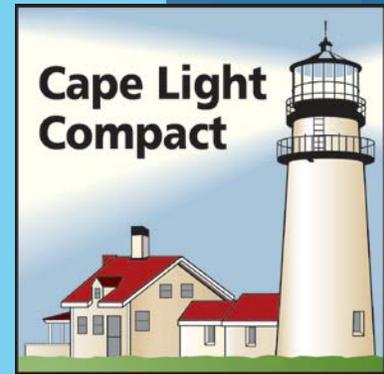
# Who are we doing it for?

- ▶ Green Communities (West Tisbury, Tisbury, Mashpee, Provincetown, Truro), Green Community hopefuls
  - ▶ Applying for competitive grants or designation
- ▶ Municipal Buildings in CLC Territory
- ▶ Audience - facility managers, town administrators, selectmen, energy committees, volunteers with a wide variety of backgrounds and levels/types of expertise, program staff & DOER



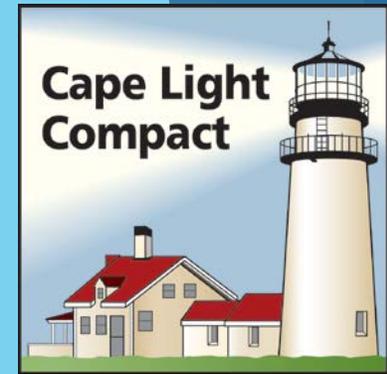
# What are the shortcomings of the current approach?

- ▶ Turnaround time is longer than desired due to detailed requirements of ASHRAE protocol and data gathering/engineering time
  - ▶ Additional time is needed after report delivery for costing, cost effectiveness screening, and other follow up
- ▶ Consulting cost & staff time is higher than desired for same reasons
- ▶ Report format provides extraneous information which can be overwhelming or confusing
- ▶ Next steps for program implementation of recommendations are not always clear



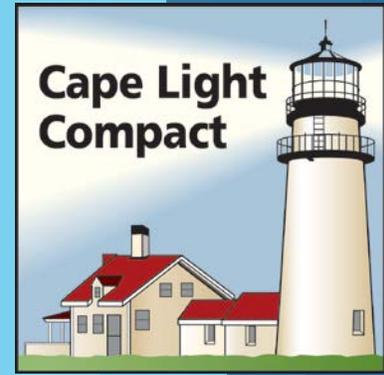
# What are we proposing to change?

- ▶ New report format - pick the best and most useful aspects of the ASHRAE audit format and leave out the steps that add extraneous information or make the report difficult to complete in a timely manner
- ▶ Include roadmap for implementation of measures
- ▶ Include better pricing information
- ▶ Table required by DOER in their respective applications
- ▶ Cost effectiveness screening results for CLC program applicability

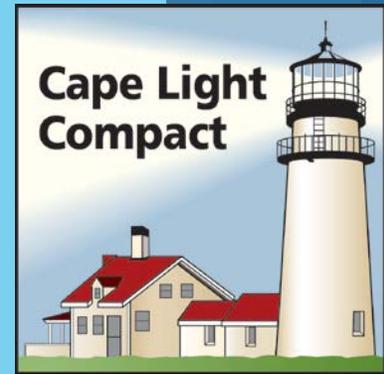


# How will this benefit the customer and CLC?

- ▶ Faster turnaround time
- ▶ Lower engineering costs
- ▶ More useful, actionable report
- ▶ Prepopulated table for DOER grant application
- ▶ Easier for towns to implement results - next steps and implementation clearly laid out.
- ▶ Sets realistic expectations for CLC program applicability of identified measures



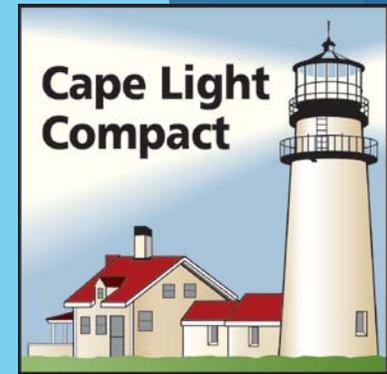
# Next Steps



- ▶ Discussion: Staff is proposing that we use this format when any municipal assessment is requested for consistency, regardless of Green Community status
- ▶ Share proposed reconfiguration with DOER
  - ▶ Since ASHRAE Level 2 is not required, we do not anticipate an issue with this equivalent
- ▶ Board Vote to adopt proposed changes in June 2014



# Sample Table



Energy Conservation Measures Summary												
Measure			Energy Data				Financial Data					
Building	ECM No.	Energy Conservation Measure	Projected Annual Electricity Savings (kWh)	Projected Annual Natural Gas Savings (therms)	Projected Annual Oil Savings (gallons)	Projected Annual Propane Savings (gallons)	Projected Annual Cost Savings (\$)	Total Installed Cost (\$)	Green Community Grant (\$)	Utility Incentives (\$)	Other Grants (\$)	Net Town Cost (\$)
Quashnet School	1	Condensing Boilers	-	2,499	-	-	\$ 3,091	\$ 94,236				
Quashnet School	2	Condensing DHW Heaters	-	384	-	-	\$ 475	\$ 17,214				
Quashnet School	3	High Eff. HVAC for Offices	9,984	1,595	-	-	\$ 3,743	\$ 89,994				
Quashnet School	4	New Energy Recovery Units	17,172	5,159	-	-	\$ 9,426	\$ 86,444				
Quashnet School	5	DCV in Gym	-	1,303	-	-	\$ 1,612	\$ 7,327				
Quashnet School	6	New Unit Vents w/ EC Motors	43,958	-753	-	-	\$ 6,862	\$ 266,800				
Quashnet School	7	Two-way HW Valves w/ VFD Pumps	15,705	-	-	-	\$ 2,784	\$ 43,610				
Quashnet School	8	New DDC System	41,611	1,638	-	-	\$ 9,404	\$ 250,000				
Quashnet School	9	Lighting Fixture Upgrade	15,552	-	-	-	\$ 2,757	\$ 44,640				
<b>BUILDINGS SUBTOTAL</b>			<b>143,982</b>	<b>11,825</b>	<b>-</b>	<b>-</b>	<b>\$ 40,156</b>	<b>\$ 900,265</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL MMBtu SAVINGS</b>			<b>491</b>	<b>1,183</b>	<b>0</b>	<b>0</b>						





## **BEHAVIOR INITIATIVE UPDATE**

**C.A.P.E. Presence Pro Energy**  
**Energy monitoring for your home and**  
**business**

## IMAGINE IF YOU COULD...

- Monitor your electric usage in 15 minute increments
- Add in “controllable” plugs
- Include a security aspect
- Compare results with others in the community with fun prizes

... AND DO IT on a smart phone or tablet or computer





## WHO

- Target participation from residential and commercial customers
- Partnership with town energy committees and/or other town departments or regional groups

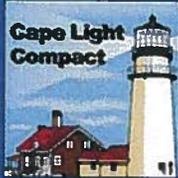
## WHEN

Target date mid-Summer to early Fall

## WHAT

- Beta testing by partnership groups
- Competition between towns/groups to enroll interested customers
  - Target customer: Needs Wi-Fi, live on Cape Cod or Martha's Vineyard, and have access to the electric meter
- **Cash prizes for top three? Or performance-based?**





## We want to help you save!

Answer the questions below to see if your household or business qualifies for the C.A.P.E. Presence Pro Energy Program. [More info.](#)

What's your zip code?

Do you have electricity in this zip code at least 6 months per year?

Yes

No

Can you access your electrical meter?

Yes

No

Do you have a wifi router?

Yes

No

Next >



Cape Light Compact  
localhost/presence\_web/html/survey/cape/step-2.html

## Congratulations, you're eligible.

<b>First Name</b>	<b>Address</b>
<input type="text"/>	<input type="text"/>
<b>Last Name</b>	Barnstable, MA 02630
<input type="text"/>	<b>Phone Number</b>
<b>Email Address</b>	<input type="text"/>
<input type="text"/>	Ex: 555-212-3456
<b>Choose a Password</b>	<b>Electric Account Number</b>
<input type="text"/>	<input type="text"/>
	Ex: 001-1234-5678

**Business or Residence?**

Business  
 Residence

**Who referred you?**

Briana Kane

**Select all the devices you have.**

iPhone  
 iPad  
 iPod Touch  
 Android Phone  
 Android Tablet  
 Computer

**Are you willing to install a meter reader?**

Yes  
 No





**Blue Line Meter**  
Connected

**Comparisons**



**Energy Usage**  
See how you compare to others



**Efficiency Challenge**  
Save money and the planet

**Messages**



**Ways to save!**  
From Briana



**C.A.P.E. messages**  
Get the latest info

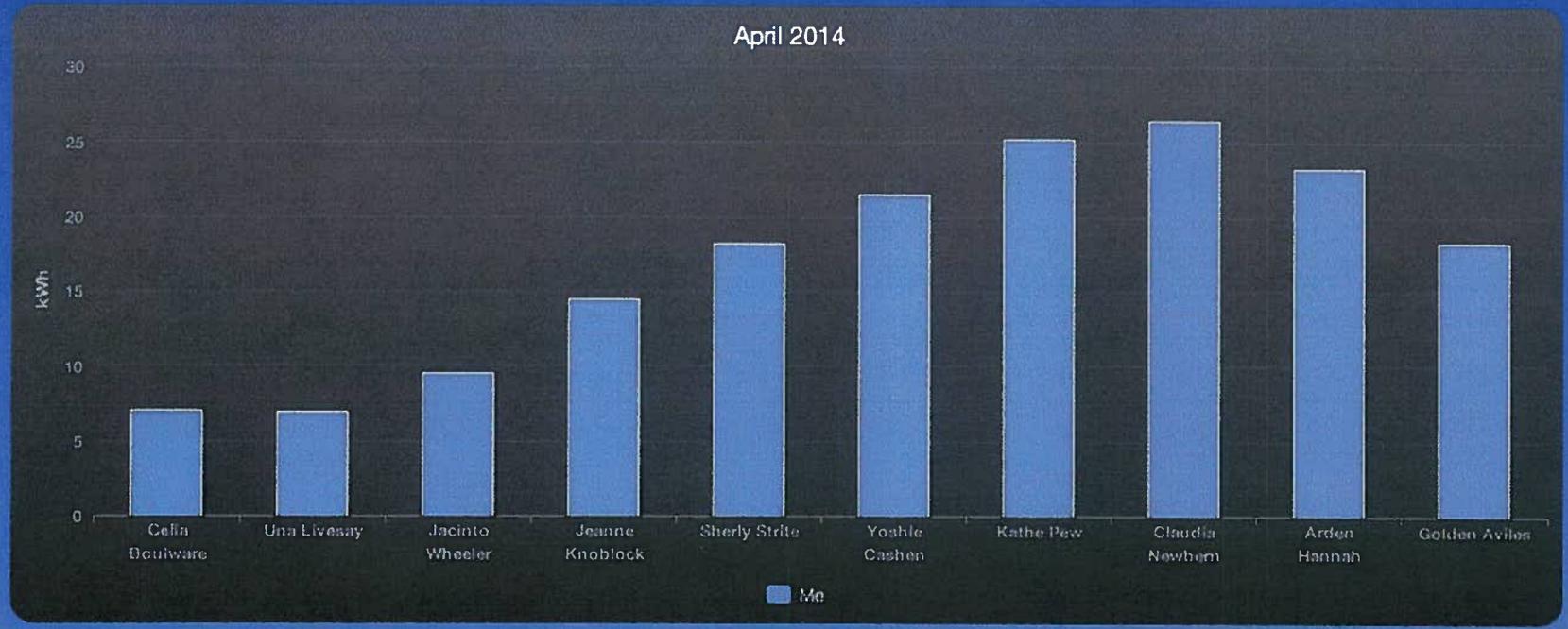
**Presence Points**



**Points Balance**  
520 Total Points - Novice

Energy Usage

March Me vs My Group May



**\$58.40**  
Average Monthly Spending

**434 kWh**  
Average Monthly Usage

**59%**  
Better than 59% of cape homes

[Update Profile](#)  
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OFFICE OF THE ATTORNEY GENERAL

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ATTORNEY GENERAL

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May 30, 2014

Mark D. Marini, Secretary  
Department of Public Utilities  
One South Station, 5<sup>th</sup> Floor  
Boston, MA 02110

**RE: Petition of the Cape Light Compact for Continued Approval of Its Municipal Aggregation Plan, D.P.U. 14-69.**

Dear Secretary Marini:

Enclosed for filing please find the Attorney General's *First Set of Document and Information Requests to the Cape Light Compact* in the above-captioned matters. Please do not hesitate to contact me if you have any questions.

Sincerely,

*/s/ Nathan C. Forster*

Nathan C. Forster  
James W. Stetson  
Assistant Attorneys General

Encl.

cc: Jonathan A. Goldberg, Hearing Officer (paper and electronic)  
Elizabeth G. Enos, Hearing Officer (electronic)  
Sarah Bresolin, Hearing Officer (electronic)  
Jo Ann Bodemer, Esq. (paper and electronic)  
Jeffrey M. Bernstein, Esq. (electronic)  
Audrey A. Eidelman, Esq. (electronic)  
Steven I. Venezia, Esq. (electronic)  
Nicholas D. Horan, Esq. (electronic)  
John K. Habib, Esq. (electronic)  
Kathleen R. Raymer, Esq. (electronic)

**COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF PUBLIC UTILITIES**

**Cape Light Compact**            )  
  )  
  )                                   **D.P.U. 14-69**

**ATTORNEY GENERAL’S FIRST SET OF  
DOCUMENT AND INFORMATION REQUESTS  
TO THE CAPE LIGHT COMPACT**

**INSTRUCTIONS**

1. These Document and Information Requests call for all information, including information contained in documents, which relates to the subject matter of the requests and which is known or available to the Cape Light Compact and its member municipalities, as well as any affiliated entity or to any individual or entity sponsoring testimony or retained by them to provide information, advice, testimony or other services in connection with this proceeding.
2. Where a Request has a number of separate subdivisions or related parts or portions, a complete response is required to each such subdivision, part, or portion. Any objection to a Request should clearly indicate the subdivision, part, or portion of the Request to which it is directed.
3. If information requested is not available in the exact form requested, provide such information or documents as are available that best respond to the Request.
4. These requests are continuing in nature and require supplemental responses when further or different information with respect to the same is obtained.
5. Each response should be furnished on a separate page headed by the individual Request being answered. Individual responses of more than one page should be stapled or bound and each page consecutively numbered.
6. Each Document and Information Request to “Please provide all documents...” or similar phrases includes a request to “identify” all such documents. “Identify” means to state the nature of the document, the date on which it was prepared, the subject matter and the titles and the names and positions of each person who participated in the preparation of

the document, the addressee and the custodian of the documents. To the extent that a document is self-identifying, it need not be separately identified.

7. For each document produced or identified in a response which is computer generated, state separately (a) what types of data, files, or tapes are included in the input and the source thereof, (b) the form of the data which constitutes machine input (e.g., punch cards, tapes), (c) a description of the recording system employed (including descriptions, flow charts, etc.), and (d) the identity of the person who was in charge of the collection of input materials, the processing of input materials, the data bases utilized, and the programming to obtain the output.
8. If a Document and Information Request can be answered in whole or part by reference to the response to another Request served in this proceeding, it is sufficient to so indicate by specifying the other Request by participant and number, by specifying the parts of the other response which are responsive, and by specifying whether the response to the other Request is a full or partial response to the instant Request. If it constitutes a partial response, the balance of the instant Request must be answered.
9. If the Cape Light Compact cannot answer a Request in full, after exercising due diligence to secure the information necessary to do so, state the answer to the extent possible, state why the Cape Light Compact cannot answer the Request in full, and state what information or knowledge is in the Cape Light Compact's possession concerning the unanswered portions.
10. If, in answering any of these Document and Information requests, you feel that any Request or definition or instruction applicable thereto is ambiguous, set forth the language you feel is ambiguous and the interpretation you are using responding to the Request.
11. If a document requested is no longer in existence, identify the document, and describe in detail the reasons the document is unavailable.
12. Provide copies of all requested documents. A response which does not provide the Attorney General with the responsive documents, and requests the Attorney General to inspect documents at any location is not responsive.
13. If you refuse to respond to any Document and Information Request by reason of a claim or privilege, or for any other reason, state in writing the type of privilege claimed and the facts and circumstances you rely upon to support the claim of privilege or the reason for refusing to respond. With respect to requests for documents to which you refuse to respond, identify each such document.
14. Each request for information includes a request for all documentation which supports the response provided.

15. The term “Customer Rate Group” shall refer to a group of customers whereby all customers in the group receive the same rate for the Cape Light Compact’s electricity supply service, pursuant to the Cape Light Compact’s design of its municipal aggregation rates.
16. The “operational adder” shall refer to the per kWh adder collected from participating customers by the Cape Light Compact, regardless if such adder was referred to as a “mil adder” or a payment to a “reserve fund” or called by some other name at the time it was collected.
17. Provide one copy of each response on three-hole punched paper.
18. Please furnish each response on a separate sheet of three-hole paper, beginning with a restatement of the question, formatted with the header set forth in Department standard “ground rules,” and with the person responsible for the answer named at the end of the response.
19. Please submit responses within ten (10) business days of receiving the request.

**COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF PUBLIC UTILITIES**

**Cape Light Compact**

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**D.P.U. 14-69**

**ATTORNEY GENERAL'S FIRST SET OF  
DOCUMENT AND INFORMATION REQUESTS  
TO THE CAPE LIGHT COMPACT**

The following are the Attorney General's Office's FIRST SET of document and information requests directed to the Cape Light Compact in the above-captioned docket.

- AG 1-1      Please disclose the days of the year on which the Cape Light Compact's fiscal year begins and ends.
  
- AG 1-2      Please provide copies of each of the Cape Light Compact's Fiscal Year Operating Fund Budgets hosted at the Cape Light Compact's web site at <http://www.capelightcompact.org/budgets/>.
  
- AG 1-3      Please disclose whether the Cape Light Compact's Fiscal Year Operating Fund Budgets requested in AG 1-2 identify and disclose all of the Cape Light Compact's costs for operating the Cape Light Compact's power supply program during such fiscal years. As to any such budgets that do not do so, please separately identify and describe all cost items not included in such budget(s).
  
- AG 1-4      Please refer to the Cape Light Compact's Operating Fund Budget for FY 2014. Please describe what types of costs are included in each line item (e.g., "CLC OPERTG FD-SALARIES") and how such costs relate to the Cape Light Compact's Power Supply Program. Please also disclose whether the same entries in the Cape Light Compact's Operating Fund Budgets for prior years refer to the same types of costs.
  
- AG 1-5      Please separately identify and disclose, for each fiscal year from the FY 2010 to the present, any amounts that the Cape Light Compact received from Barnstable County or any other municipal or county government to fund the Cape Light Compact's Power Supply Program.
  
- AG 1-6      Please disclose the date, amount, and purpose of any payments that the Cape Light Compact has made from funds generated by the operational adder from FY 2010 to the present, except for those used to pay the costs already identified in the budgets produced by the Cape Light Compact pursuant to AG 1-2 and the Cape Light Compact's responses to AG 1-3. The Cape Light Compact's response should include, but not be limited to,

any payments made to one or more of Cape Light Compact's participating municipalities.

- AG 1-7 Please refer to the statement in § 2.3.1(5) of the Cape Light Compact's revised municipal aggregation plan stating that the "Compact's Power Supply Program also includes.... [o]ngoing consumer advocacy and representation at the state level through participation in DPU proceedings, the legislative development process, the stakeholder community and before other regulatory and governmental bodies." Please provide the docket number and a description of all "DPU proceedings" and proceedings "before other regulatory and governmental bodies" in which the Cape Light Compact has participated and which were funded, in whole or in part, from amounts generated from the operational adder.
- AG 1-8 Please disclose, separately and as to each entry for "legal services" in the budgets produced in response to AG 1-2 and the Cape Light Compact's response to AG 1-3, the amount spent for legal services in connection with Cape Light Compact's "ongoing consumer advocacy and representation at the state level" and the amount spent for legal services in connection with the power supply procurement aspect of the Cape Light Compact's Power Supply Program for each fiscal year. For any fiscal year during which the Cape Light Compact incurred costs for legal services for purposes other than for its advocacy efforts or in connection with its power supply procurement, please state the date, amount, and a description of any such legal services.
- AG 1-9 Please disclose, as to each municipality that has participated in the Cape Light Compact's Power Supply Program, the local electric distribution company serving such municipality.
- AG 1-10 Please provide an Excel spreadsheet that includes a row for every month since the Cape Light Compact's aggregation plan was approved by D.T.E. 00-47 to the present. The Excel spreadsheet should also include the following: (1) columns for each Customer Rate Group that disclose the total kWh's served by the Cape Light Compact's municipal aggregation program to that Customer Rate Group during each month; (2) columns for each Customer Rate Group that disclose the rate charged to that Customer Rate Group during each month; (3) a column that discloses the size of the operational adder charged to customers for each month (e.g., \$0.001/kWh, \$0.0005/kWh, etc.); and (4) a column that discloses the total amount collected from the operational adder for each month. Please populate the spreadsheet with the relevant data and provide with all formulae and cell references intact.
- AG 1-11 Please provide an Excel spreadsheet that includes a row for every month since the Cape Light Compact's aggregation plan was approved by D.T.E. 00-47 to the present. The Excel spreadsheet should also include columns for each Customer Rate Group that discloses the total kWhs served by the

Cape Light Compact's municipal aggregation program to customers of Nantucket Electric Company's service territory within that Customer Rate Group during said month.

- AG 1-12 Please provide, for each fiscal year since the Cape Light Compact's municipal aggregation plan was approved in D.T.E. 00-47, the total amount that the Cape Light Compact has collected from participating customers pursuant to the operational adder.
- AG 1-13 Please describe the mission and purpose of the Cape Vineyard and Electric Cooperative.
- AG 1-14 Please provide a copy of the web page hosted at <http://www.cvecinc.org/about/cvec-clc-faqs/>.
- AG 1-15 Please state whether the web page provided in response to AG 1-14 fully and accurately describes the benefits of the Cape Vineyard and Electric Cooperative and the persons who will receive them. If it does not, please provide a detailed explanation why such web page does not fully and accurately describe the benefits of Cape Vineyard and Electric Cooperative and the persons who will receive them.
- AG 1-16 Please describe whether the payments of the Cape Light Compact to the Cape Vineyard and Electric Cooperative are grants or loans. If such payments are loans, please disclose the terms of such loans.
- AG 1-17 Please provide copies of all minutes of the Cape Light Compact concerning any payments from Cape Light Compact to the Cape Vineyard and Electric Cooperative.
- AG 1-18 Please provide a copy of any and all reports from the Barnstable County Assembly of Delegates concerning the Cape Light Compact and/or the Cape Vineyard and Electric Cooperative.
- AG 1-19 Please provide copies of any responses from the Cape Light Compact to any of the reports provided in the Cape Light Compact's response to AG 1-18.
- AG 1-20 Please identify and provide copies of all executed electric service agreements that the Cape Light Compact has entered into with competitive suppliers.

AG 1-21 For each electric services agreement identified in the Cape Light Compact's response to AG 1-20, please disclose whether such contract was entered into following the issuance of a request for proposals ("RFP"). If so, please state how the RFP was distributed to recipients, identify all recipients of the RFP, and identify all respondents to the RFP. Please also produce copies of the RFP, all responses thereto, any communications concerning the RFP, and all bid analyses.

Date: May 30, 2014

**COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF PUBLIC UTILITIES**

**Cape Light Compact**            )  
  )  
  )                                   **D.P.U. 14-69**

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document by first-class mail and electronic mail upon all parties of record in this proceeding in accordance with the requirements of 220 C.M.R. 1.05(1) (Department’s Rules of Practice and Procedure).

Dated at Boston this 30<sup>th</sup> day of May, 2014.

/s/ Nathan C. Forster  
Nathan C. Forster  
Assistant Attorney General  
Attorney General Martha Coakley  
Office of Ratepayer Advocacy  
One Ashburton Place  
Boston, MA 02108  
(617) 727-2200

**Agenda Action Request  
Cape Light Compact  
Meeting Date: 6/11/14**



**FY15 Cape Light Compact Operating Budget and Establishment of an OPEB Reserve Fund**

***Proposed Motion(s)***

- 1) *I move the Board vote to appropriate the Cape Light Compact FY15 Operating Budget in the amount of \$1,604,872. (NOTE: this is the total of a \$1,101,417 CLC budget and a \$403,455 grant to CVEC and a \$100,000.00 loan to CVEC)*
- 2) *I move that the Board establish an OPEB reserved fund balance within the Power Supply Reserve Fund in the amount of \$300,731.*

***FY15 budget request is attached.***

***The Cape Light Compact OPEB exposure will change at the completion of an Actuarial Study***

***Record of Board Action***

Motion by:	Second by:	# Aye	# Nay	# Abstain	Disposition

- Aquinnah*
- Barnstable*
- Barnstable County*
- Bourne*
- Brewster*
- Chatham*
- Chilmark*
- Dennis*
- Dukes County*
- Eastham*
- Edgartown*
- Falmouth*
- Harwich*
- Mashpee*
- Oak Bluffs*
- Orleans*
- Provincetown*
- Sandwich*
- Tisbury*
- Truro*
- Wellfleet*
- West Tisbury*
- Yarmouth*

# CLC POTENTIAL & PROGRAM OPPORTUNITIES STUDY

Board Meeting

6/11/2014



# Agenda

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- The Project Team (Who?)
- Study Outcomes (What?)
- Regulatory Requirements and Goals (Why?)
- Project Tasks (How?)
- Project Timeline (When?)

# The Project Team (Who?)

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- Opinion Dynamics Corporation
  - Headquartered in Waltham, Massachusetts
  - One of the leading energy efficiency research and evaluation companies
  - Extensive local experience (and local presence)
- Subcontractors
  - Dunskey Energy Consulting
  - Mad Dash Inc.

# Study Outcomes (What?)

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- Detailed information about CLC's residential and non-residential customer base, based on primary data collection
  - What energy-using equipment is installed in homes and businesses?
  - What is the efficiency level of the installed equipment?
  - How likely are customers to adopt energy efficient equipment in the future?
  - What are customer characteristics and occupancy patterns?
- CLC electric energy efficiency potential, by segment and year, for 2016-2021
- Adjustable CLC-specific electric potential model
- Program design support for commercial/industrial programs

# Regulatory Requirements and Goals (Why?)

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- Comply with DPU requirement to document the penetration of energy efficiency within its service territory and develop estimates of remaining savings potential (D.P.U. 12-107, dated 1/31/2013).

*“The Program Administrators with an aggregate three-year savings goal of greater than 20 percent below the statewide three-year aggregate goal will conduct a study, either jointly or individually, during the upcoming three-year term to document the penetration of energy efficiency within its service territory and the remaining cost-effective energy efficiency opportunities available.”*

- Collect wealth of CLC-specific information
- Inform the next three-year energy efficiency plan
- Support design enhancements to non-residential programs

# Overview of Tasks (How?)

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- Task 1: Study planning and scoping
- Task 2: Primary data collection
- Task 3: Model development
- Task 4: Analysis and reporting
- Task 5: Program design support

# Task 1: Study Planning and Scoping

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- Worked closely with CLC staff to define the study scope, project outcomes, deliverables, and budget
  - Reviewed existing CLC data
  - Determined required primary research approaches and sample sizes
  - Determined the appropriate potential model framework
  - Determined level of detail required for various study components
  - Developed detailed work plan outlining the approach, project timeline, and budget
- Task is completed

## Task 2: Primary Data Collection

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- Residential & Low Income
  - Mail survey targeting a random sample of 12,000 customers (equipment penetration & saturation, occupancy patterns, demographics)
  - On-site verification for 175 customers (nested sample; same information as in mail survey plus technical data)
  - Phone survey with 300 customers (barriers to energy efficiency/program participation)
- Commercial & Industrial
  - Phone survey with 520 customers (high-level equipment penetration, occupancy patterns, barriers to energy efficiency/program participation)
  - On-site verification for 146 customers (nested sample; same equipment information as in phone survey plus technical data)
- Task is on-going

# Task 3: Model Development

Measure/Program	Load Shapes					Measure Life (yrs)	Measure Weight	PV of Capacity	PV of Summer On-Peak Energy
	Summer On-Peak Energy	Summer Off-Peak Energy	Summer Shoulder Energy	Winter Off-Peak Energy	Winter Shoulder Energy				
Lighting	19.5%	5.2%	8.8%	20.2%	56.3%	18.00	94%	\$ 10,045,919	\$ 45,128
HVAC								\$ 0	\$ -
HVAC Controls								\$ 482	\$ 5,287
Motors & Drives								\$ 218	\$ 25,757
Compressed Air								\$ 460	\$ 19,066
Refrigeration								\$ 109	\$ 10,529
Building Envelope								\$ -	\$ 1,553
Vending Machines								\$ 846	\$ 54,812
Custom Projects								\$ 323	\$ -
<b>Small Commercial</b>								\$ 685	\$ 4,466,125
Lighting								\$ 314	\$ 222,816
HVAC								\$ -	\$ -
HVAC Controls								\$ 1,221,605	\$ 127,584
Motors & Drives	25.3%	0.0%	8.0%	0.0%	67.0%	15.00	3%	\$ 449,678	\$ 82,705
Compressed Air	21.3%	8.5%	11.1%	23.0%	46.1%	15.00	4%	\$ 536,051	\$ 223,204
Refrigeration	48.3%	23.5%	21.1%	1.3%	15.8%	20.00	1%	\$ 1,028,934	\$ 83,341
Building Envelope	48.3%	23.5%	21.1%	2.3%	15.8%	8.00	0%	\$ -	\$ 484
Vending Machines	21.7%	8.5%	10.8%	13.2%	45.8%	16.00	21%	\$ 6,482,627	\$ 1,200,213
Custom Projects								\$ -	\$ -
<b>Residential Total</b>						16		\$ 44,857,198	\$ 5,506,488

Develop Model Framework

Request and Review CLC Data and Materials

Collect Additional Data to Fulfill Model Needs

Feedback from CLC

Measure/Program	Load Shapes					Measure Life (yrs)	Measure Weight	PV of Capacity	PV of Summer On-Peak Energy
	Summer On-Peak Energy	Summer Off-Peak Energy	Summer Shoulder Energy	Winter Off-Peak Energy	Winter Shoulder Energy				
Lighting	19.5%	5.2%	8.8%	20.2%	56.3%	18.00	94%	\$ 10,045,919	\$ 45,128
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Vending Machines	21.7%	8.5%	10.8%	13.2%	45.8%	16.00	21%	\$ 6,482,627	\$ 1,200,213
Custom Projects								\$ -	\$ -
<b>Residential Total</b>						16		\$ 44,857,198	\$ 5,506,488

Populate Model



## Task 4. Analysis and Reporting

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- Comprehensive report, with methodology
  - Remaining cost-effective opportunity scenarios, by sector and segment
  - Summary of penetration and saturation results
  - Program opportunities in light of program design, goals, and potential program enhancements
- Data sets: penetration and saturation
- Consolidated presentation of findings
- Deliver and train CLC staff on adjustable, transparent potential model
  - Models with inputs and outputs for reported scenarios

# Task 5: Program Design Support

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- For larger C&I customers only

Element of Program Design Support	Level of Support
Program Literature Review	Comprehensive
CLC Data Review	Comprehensive
Interviews with Program Managers	Multiple
Interviews with Program Partners	yes
Best Practices Scan	yes
Gap Analysis	yes
Scenario Analysis	yes
Budget Support	Bottom-up
Incentive Levels	Detailed (size and structure)
Process Flows	TBD
Logic Model	TBD
Enabling Strategies	Detailed

## Project Timeline (When?)

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- Fall 2013: Project scoping began
- June and October 2014: Primary data collection
- February 2015: Draft Potential Report
- March 2015: Final Potential Report
- April 2015: Draft Program Design Report
- May 2015: Final Program Design Report

# Questions & Answers



# Additional Detail



## Task 2: Residential Sample Sizes

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Segment	Customer Count*	Mail Surveys – Sent	Mail Surveys – Completed**	Site Visits	Telephone Interviews
Residential, Non-Seasonal	117,585	3,500	500	50	100
Residential, Seasonal	40,003	3,500	500	50	100
Low Income	8,342	5,000	750	75	100
Total	165,930	12,000	1,750	175	300

*\*Excludes residences with low, zero, or missing usage data.*

*\*\*Assumes response rate of approximately 15%.*

## Task 2: C&I Sample Sizes

Ambitious completion rates assume CLC can help spread the word and gather better contact information.

Usage Group	Business Segment	Premise Count*	Estimated Phone Completes	Estimated Site Completes
Top 95% of Usage	Small Retail	1,081	67	20
	Automotive, Warehouse/Distribution, Industrial	928	58	17
	Office	839	51	15
	Restaurant	766	56	17
	Government/Education	639	46	14
	Lodging/Hospitality	431	31	9
	Health Services	397	28	8
	Multifamily Housing	563	34	10
	Grocery/Convenience and Large Retail	296	25	8
	Other Commercial	880	59	18
	Unallocated Visits <i>(will be targeted to specific end-uses)</i>			10
Bottom 5% of Usage	All Segments	9,701	70	n/a
	<b>Total Sample Frame</b>	<b>16,521</b>	<b>523</b>	<b>146</b>

Census attempt

# Task 3: Measure Characterization

- Compile list of measures and characteristics (based on statewide Technical Reference Manual and current CLC programs)
- Assess need to customize statewide assumptions to reflect CLC-specific characteristics
- Identify and incorporate into model up to 10 new measures

Measure	Measure Life (years)	Gross Annual kWh Saved	Maximum Load Reduction (kW)	Summer Coincident (%)	Total Resource Cost	Incentive
Refrigerators	12	0	2.515	100.0%	\$ 50	\$ 50
Ref Recycle	12	0				
Dishwashers	10	0				
Clothes Washer Tier 1	11	0				
Clothes Washer Tier 2	11	0				
Clothes Dryer Tier 1	11	0				
Clothes Dryer Tier 2	11	0				
CFE	7	65				
LED	7	95				
Fixtures	20	50	0.00	11.0%	\$ 50	\$ 10
CoolSmart AC SEER 14 (Equip)	18	40	0.000	85.0%	\$ 500	\$ 300
CoolSmart HP SEER 14 (Equip)	18	400	0.000	35.0%	\$ 500	\$ 300
CoolSmart AC SEER 14 => (Equip)	18	400	0.000	85.0%	\$ 500	\$ 300
CoolSmart HP SEER 14=> (Equip)	18	500	0.000	67.0%	\$ 500	\$ 300
CoolSmart AC SEER 15.0 => (Equip)	18	1,100	4.682	85.0%	\$ 800	\$ 400
CoolSmart HP SEER 15.0 => (Equip)	18	1,306	0.944	67.0%	\$ 800	\$ 400
Duct Sealing - 100 CFM redcut	18	100	0.000	85.0%	\$ 200	\$ 200
Down Size 1/2 ton	18	255	0.038	85.0%	\$ -	\$ 250
Mini Splits	18	300				
Rightsizing on ES Tier 2 14.5 1	18	39				
Early Replacement 10-15 yrs, c	7	260				
Room AC	9	240				
Boiler	18	0				
Thermostat	10	0				
Wm Air Furnace ECM (GN Reb	18	0				
CM / Oil Replace Furnace	18	0				
Retail Screw-in Bulbs	7	65	29.0	11.0%	\$ 3	\$ 2
Retail Indoor Fixture	20	95		11.0%	\$ 19	\$ 15
Retail Outdoor Fixture	6	50		11.0%	\$ 16	\$ 10
Retail Torchiere	8	40	0.000	11.0%	\$ 20	\$ 15
Retail LED	20	400	0.000	11.0%	\$ 100	\$ 30
DHWater Measure (elec)	7	100	0.000	75.0%	\$ 16	\$ 10
DHWater Measure (gas) (elec)	7	255	0.000	0.0%	\$ 20	\$ 15
Appliance Removal	5	300	0.000	100.0%	\$ 100	\$ 30
AC or POOL Timer	5	39	0.000	100.0%	\$ 50	\$ -
Window AC Replacements	12	260	0.000	100.0%	\$ 200	\$ 200
Tstats	10	240	0.000	3.0%	\$ 500	\$ 200
Commercial CAIR	15	0	0.000	100.0%	\$ 3	\$ 2
Commercial Cool Choice	13	12,774	0.000	100.0%	\$ 19	\$ 15
Commercial Custom	16	0	0.000	100.0%	\$ 16	\$ 10
Commercial HVAC	20	0	0.000	100.0%	\$ 20	\$ 15
Commercial Lights	15	0	0.000	100.0%	\$ 100	\$ 30
Commercial MotorUp	20	421	0.000	100.0%	\$ 0.242	\$ 0.181
Commercial VSD	15	0	0.000	80.6%	\$ 0.122	\$ 0.092

Customize assumptions for key measures, if TRM is not reflective of CLC territory.

Develop assumptions for up to 10 new measures.

## Task 3: CLC Measure Customization

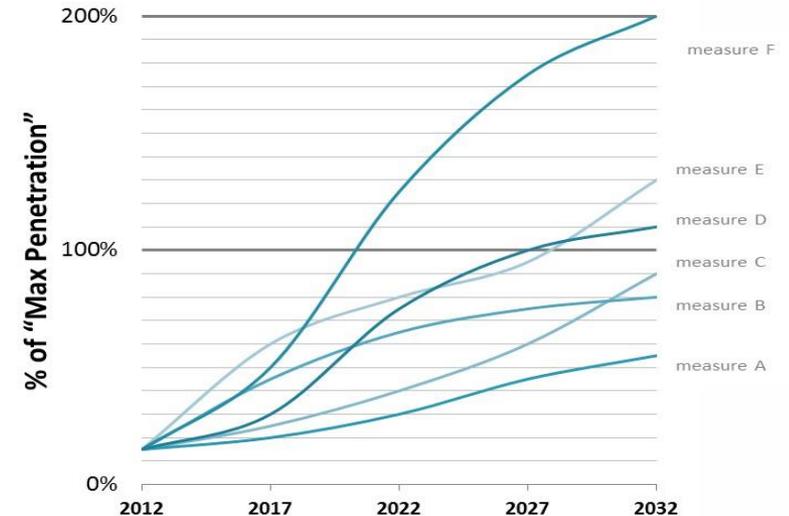
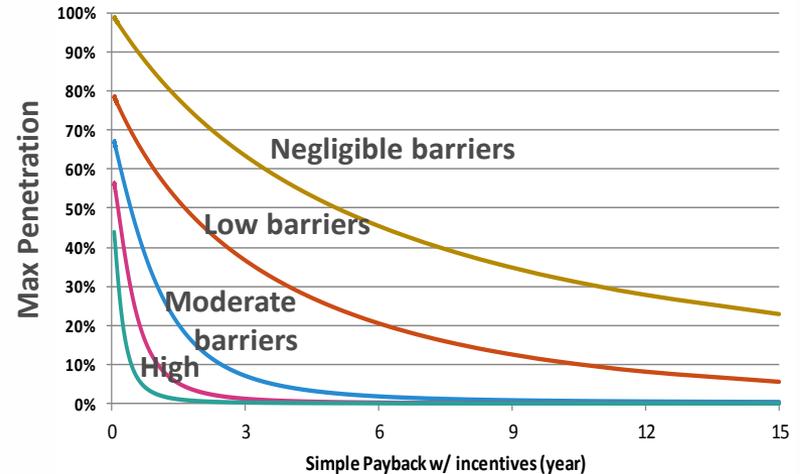
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- Important CLC-specific characteristics
  - Seasonal occupancy
    - Non-occupancy during part of the year
    - Intensity of use during occupancy months
  - Non-fulltime use (e.g., weekend occupancy)
  - Cape-specific characteristics (e.g., building stock, contractor base)
- Two types of adjustments may be needed:
  - Cape versus MA TRM
  - Seasonal Cape versus non-seasonal Cape

# Task 3: Development of Adoption Curves

## FOUR STEP PROCESS

1. Define baseline
2. Define maximum adoption  
*(under current market conditions)*
3. Define ramp-ups  
*(may exceed 100% as barriers fall)*
4. Calculate potential  
*(for different time periods)*

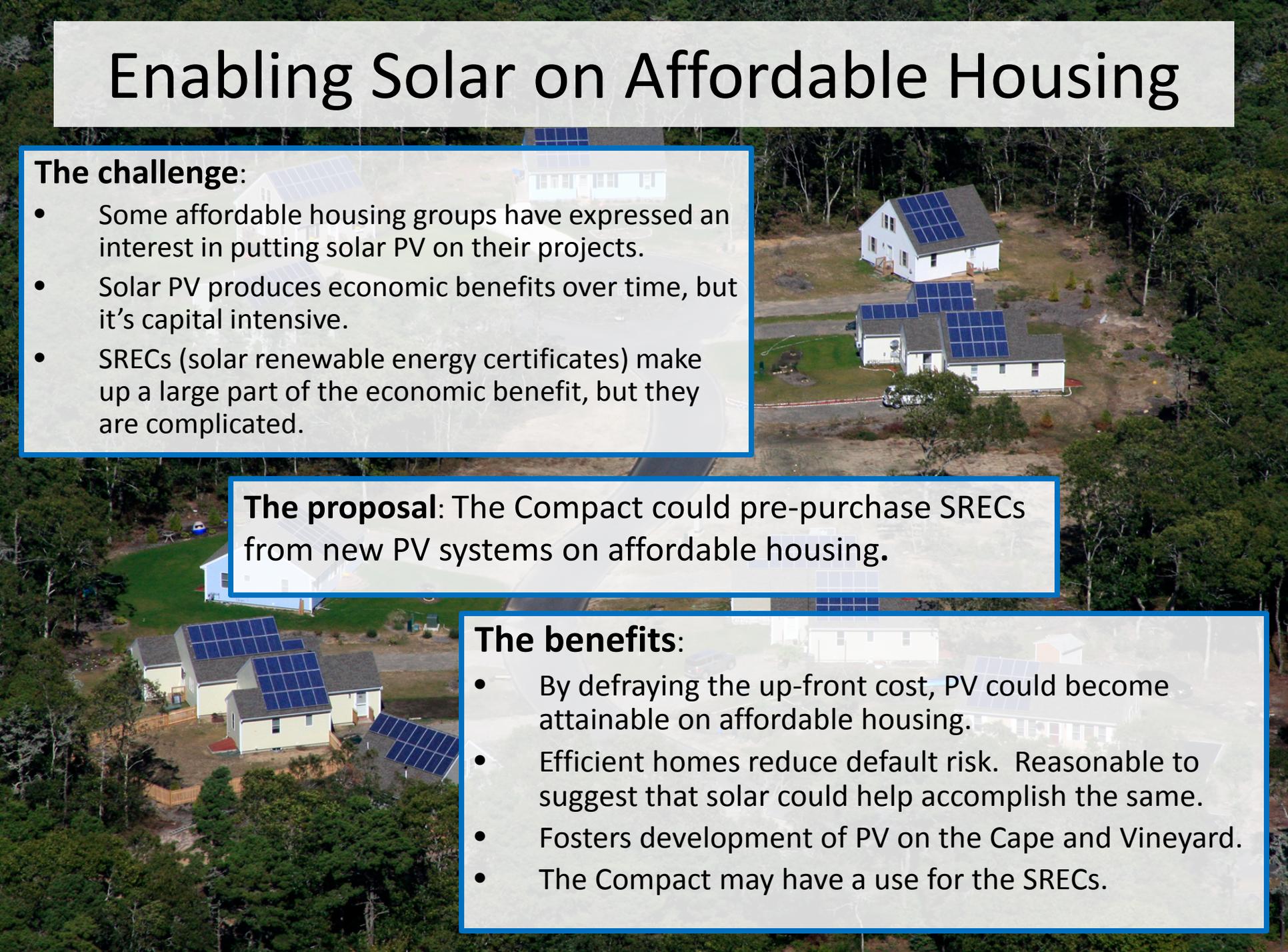


# Project Timeline (When?)

Task	Mar 2014	Apr 2014	May 2014	June 2014	Jul 2014	Aug 2014	Sept 2014	Oct 2014	Nov 2014	Dec 2014	Jan 2015	Feb 2015	Mar 2015	Apr 2015	May 2015
<b>Task 1: Study Planning and Scoping</b>															
• <i>Work Plan</i>		★	★												
<b>Task 2: Primary Data Collection</b>															
• <i>Residential Mail Survey Instrument</i>		★	★												
◦ <i>Fielding of Residential Mail Survey</i>															
• <i>Residential On-Site Instrument</i>				★	★										
◦ <i>Residential Site Visits</i>															
• <i>Residential Phone Survey Instrument</i>				★	★										
◦ <i>Fielding of residential phone survey</i>															
• <i>Commercial Phone Survey Instrument</i>			★	★											
◦ <i>Fielding of Commercial Phone Survey</i>															
• <i>Commercial On-Site Instrument</i>				★	★										
◦ <i>Commercial Site Visits</i>															
<b>Task 3: Model Development</b>															
• <i>New Measure Memos</i>			★	★											
<b>Task 4: Analysis and Reporting</b>															
• <i>Penetration and Saturation Tables</i>											★	★			
• <i>Potential Report</i>												★	★		
• <i>Presentation of Results</i>													★	★	
• <i>Training on Potential Model</i>													★	★	
• <i>User's Manual</i>														★	★
<b>Task 5: Program Design Support</b>															
• <i>Program Design Report</i>														★	★

- ★ Draft deliverable
- ★ Final deliverable

# Enabling Solar on Affordable Housing



## The challenge:

- Some affordable housing groups have expressed an interest in putting solar PV on their projects.
- Solar PV produces economic benefits over time, but it's capital intensive.
- SRECs (solar renewable energy certificates) make up a large part of the economic benefit, but they are complicated.

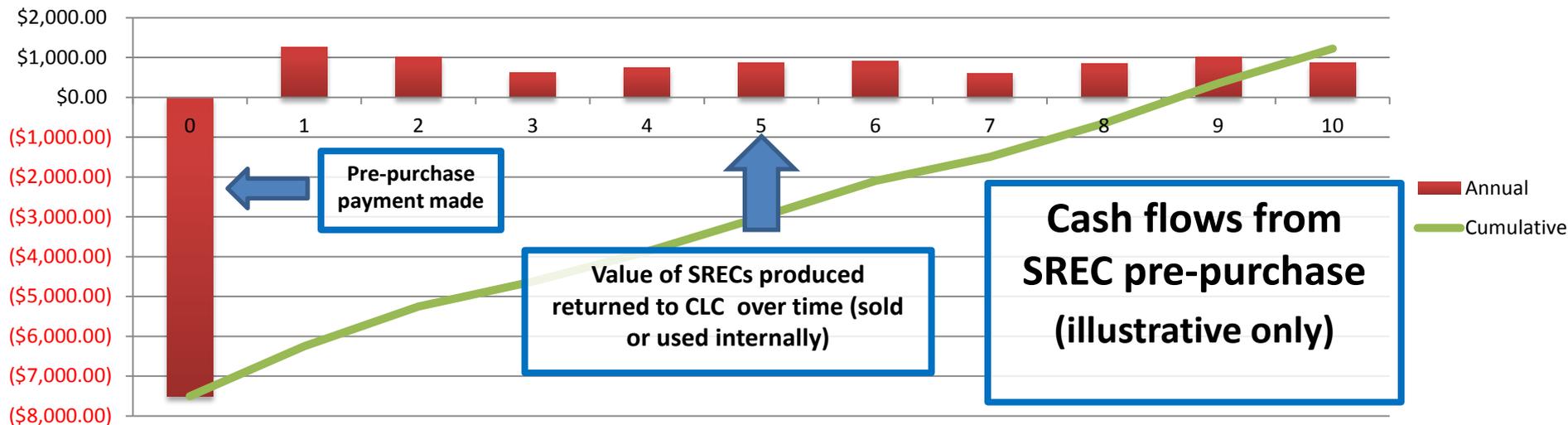
**The proposal:** The Compact could pre-purchase SRECs from new PV systems on affordable housing.

## The benefits:

- By defraying the up-front cost, PV could become attainable on affordable housing.
- Efficient homes reduce default risk. Reasonable to suggest that solar could help accomplish the same.
- Fosters development of PV on the Cape and Vineyard.
- The Compact may have a use for the SRECs.

## How it might work:

- The Compact would agree on a price, a term, and a production estimate with the housing organization.
- These numbers would be used to calculate a lump payment to defray the initial cost of the PV system.
- As SRECs are produced over the term, the Compact would take ownership of them. The Compact could sell them or use them. If they were sold, **proceeds could be used to make the program self-sustaining.**



## Next Steps:

- Board can vote to approve the program at its next meeting.
- We'd propose a small pilot program with the entity that approached us.
- If negotiations and contracting with the pilot are successful, these forms of contract can be used to work with other affordable housing groups.

Cape Light Compact Power Supply Reserve Fund Balance as of 5/15/14	\$ 1,568,630.00
Projected Cape Light Compact Power Supply Reserve Fund Balance as of 6/30/14	\$ 1,700,000.00
Projected Cape Light Compact REC Revenue as of 6/30/15	\$ 278,000.00
Projected FY15 Operational Adder Revenue as of 6/30/15	\$ 1,020,000.00

**Cape Light Compact Fiscal Year 2015 (July 1, 2014 - June 30, 2015) Proposed Operating Budget**

Item	FY 14	Proposed FY15	
Salaries	\$ 182,219.00	\$ 235,000.00	Stephan 100%, Maggie 100% Karen 25%, Lindsay 25%
Auditor	\$ 130,000.00	\$ 40,000.00	
Legal	\$ 383,105.00	\$ 390,302.00	
Contractual	\$ 45,000.00	\$ 45,000.00	RFP for CLC load
Outreach/Marketing Contractor		\$ 63,365.00	web redesign, brochures, media
Telephone	\$ 1,200.00	\$ 3,000.00	
IT County Support		\$ 24,000.00	
Travel Out-of-state		\$ 6,000.00	
Travel In-state	\$ 16,000.00	\$ 16,000.00	
Advertising - power supply	\$ 12,000.00	\$ 35,000.00	
Shipping	\$ 250.00	\$ 250.00	
Postage	\$ 11,000.00	\$ 13,000.00	
Sponsorships (formerly Association Dues)	\$ 11,000.00	\$ 18,000.00	Roundtable, Living Local, NECA, PTI, Rotary Show (1/2 events)
Subscriptions	\$ 1,500.00	\$ 500.00	
Printing	\$ 7,000.00	\$ 7,000.00	
Fringes	\$ 46,764.00	\$ 50,000.00	
Equipment Rental	\$ 5,000.00	\$ 5,000.00	
LED Streetlight Reserve	\$ 150,000.00	\$ 150,000.00	
Subtotal CLC Operating Budget	\$ 1,002,038.00	\$ 1,101,417.00	
<b>OPEB Reserve</b>	<b>\$</b>	<b>\$ 300,731.00</b>	
CVEC Operating Grant	402,885	\$ 403,455.00	
CVEC Loan		\$ 100,000.00	
Total CLC FY 15 Operating Budget		\$ 1,604,872.00	

FOR 2014 12

COUNTS FOR:		ORIGINAL	REVISED				AVAILABLE	PCT
74	CAPE LIGHT COMPACT OPERTG FUND	APPROP	BUDGET	YTD ACTUAL	MTD ACTUAL	ENCUMBRANCES	BUDGET	USED
1/4	4999 CLC OPERTG FD-TRANSFERS	0	.00	-1,124,783.00	.00	.00	1,124,783.00	100.0%
1/4	5100 CLC OPERTG FD-SALARIES	0	182,219.00	202,124.50	6,833.82	.00	-19,905.50	110.9%*
1/4	5213 CLC OPERTG FD-TELEPHONES	0	1,200.00	.00	.00	.00	1,200.00	.0%
1/4	5214 CLC OPERTG FD-INTERNET/I	0	.00	.00	.00	.00	.00	.0%
1/4	5233 CLC OPERTG FD-AUDIT/ACCT	0	130,000.00	84,338.75	5,770.00	.00	45,661.25	64.9%
4	5235 CLC OPERTG FD-LEGAL SERV	0	304,955.00	222,847.48	.00	.00	82,107.52	73.1%
4	5239 CLC OPERTG FD-CONTRACTUA	0	119,755.00	88,720.66	18,610.00	.00	31,034.34	74.1%
4	5281 CLC OPERTG FD-OUTSTATE T	0	3,630.68	3,586.99	.00	.00	43.69	98.8%
4	5282 CLC OPERTG FD-IN STATE T	0	12,369.32	5,828.09	214.32	.00	6,541.23	47.1%
4	5291 CLC OPERTG FD-ADVERTISIN	0	15,482.64	14,581.63	2,222.14	.00	901.01	94.2%
4	5294 CLC OPERTG FD-FREIGHT/SH	0	250.00	46.92	.00	.00	203.08	18.8%
4	5295 CLC OPERTG FD-PRINTG/COP	0	5,448.07	2,535.35	461.76	1,042.29	1,870.43	65.7%
4	5298 CLC OPERTG-LED ST LIGHTS	0	150,000.00	.00	.00	.00	150,000.00	.0%
4	5361 CLC OPERTG FD-POSTAGE	0	11,000.00	6,482.96	521.16	935.88	3,581.16	67.4%
4	5421 CLC OPERTG FD-ASSOC DUES	0	17,150.00	17,150.00	.00	.00	.00	100.0%
4	5429 CLC OPERTG FD-SUBSCRIPTI	0	500.00	.00	.00	.00	500.00	.0%
4	5463 CLC OPERTG FD-EQUIP RENT	0	3,000.00	.00	.00	.00	3,000.00	.0%
4	5469 CLC OPERTG FD-MISC RENTA	0	.00	.00	.00	.00	.00	.0%
4	5490 CLC OPERTG FD-GRANTS TO	0	402,745.00	402,745.00	.00	.00	.00	100.0%
4	5559 CLC OPERTG FD-COMPUTER E	0	2,000.00	1,624.51	.00	.00	375.49	81.2%
4	5790 CLC OPERTG FD-TRNSFRS	0	.00	.00	.00	.00	.00	.0%
4	5981 CLC OPERTG FD-RETIREMENT	0	26,000.00	17,521.81	.00	.00	8,478.19	67.4%
4	5983 CLC OPERTG FD-GRP INSUR	0	17,000.00	19,082.09	892.48	.00	-2,082.09	112.2%*
4	5984 CLC OPERTG FD-MEDICARE	0	3,764.00	2,809.89	93.67	.00	954.11	74.7%
TOTAL CAPE LIGHT COMPACT OPERT		0	1,408,468.71	-32,756.37	35,619.35	1,978.17	1,439,246.91	-2.2%
TOTAL REVENUES		0	.00	-1,124,783.00	.00	.00	1,124,783.00	
TOTAL EXPENSES		0	1,408,468.71	1,092,026.63	35,619.35	1,978.17	314,463.91	
PRIOR FUND BALANCE					20,441.52			
CHANGE IN FUND BALANCE					32,756.37			
CURRENT FUND BALANCE					53,197.89			

