

Cape Light Compact Executive Committee & Governing Board Meeting

DATE: Wednesday, July 13, 2016
LOCATION: Innovation Room, Open Cape Building
3195 Main Street, Barnstable County Complex
TIME: 12:30 – 4:30 p.m.

AGENDA

- 12:30 Open Session Vote on entry into Executive Session pursuant to M.G.L. c. 30A §21(a)(3) and (a)(10) to discuss:
1. Update on Compact and NGRID Agreement for Natural Gas Heated Homes
 2. Litigation strategy discussion regarding Electric Distribution Companies and Interstate Natural Gas Pipeline Capacity Contracts, DPU 15-181, DPU 16-05 and DPU 16-07; and
 3. Litigation strategies related to Grid Modernization and Plans filed by Massachusetts Distribution Companies (DPU 15-120 and 15-122)
- 1:30 – 1:40 Public Comment
- 1:40 – 1:50 Approval of Minutes
- 1:50 – 2:30 Energy Efficiency – Commercial & Industrial Program
1. Presentation on New Construction Program, Weidt Group
 2. Discussion on C&I Incentives, Margaret Song
- 2:30 – 3:00 Power Supply Discussion on RECs and RPS requirements, Austin Brandt
- 3:00 – 3:10 Treasurer’s Report: Potential Vote to Ratify Treasurer’s Approval of Contracts
- 3:10 – 3:30 Chairman’s Report:
1. New Board Member Packets
 2. Discussion of June Meeting with Representative Hunt
- 3:30 – 3:50 Administrators’ Report:
Discussion and Potential Vote on Implementation of FY17 COLA and Salary Reserve
Update on Administrative Services Agreement
Legislative Update –Energy Bill Overview
Update on Insurance Coverage
- 3:50 – 4:15 Overview of Revised Public Records Law, Jeff Bernstein
- 4:15 – 4:30 Board Member Update (Reserved for Updates on Member Activities the Chair Did Not Reasonably Anticipate Would be Discussed – No Voting

**Cape Light Compact
Governing Board and Executive Committee
Open Session Meeting Minutes
Wednesday, June 8, 2016**

The Cape Light Compact Governing Board and Executive Committee met on Wednesday, June 8, 2016 in the Innovation Room, Open Cape Building, Barnstable County Complex, 3195 Main Street, Barnstable MA 02630 at 2:00 p.m.

PRESENT WERE:

1. Joyce Flynn, Chair, Yarmouth
2. Robert Schofield, Vice-Chair
3. Peter Cocolis, Treasurer, Chatham
4. Ronald Zweig, Secretary, Falmouth
5. Richard Toole, Member at Large, Oak Bluffs – by phone
6. David Anthony, Barnstable
7. Deane Keuch, Brewster
8. Brad Crowell, Dennis at 2:10
9. Fred Fenlon, Eastham
10. Valerie Bell, Harwich
11. Chris Galazzi, Orleans at 2:06
12. Joshua Peters, Sandwich
13. Joseph Buteau, Truro
14. Richard Elkin, Wellfleet
15. Sue Hruby, West Tisbury
16. Sheila Lyons, Barnstable County at 2:25

ABSENT WERE:

17. Paul Pimentel, Edgartown
18. John Ally, Dukes County
19. Thomas Donegan, Provincetown
20. Michael Hebert, Aquinnah
21. Tim Carroll, Chilmark
23. Mashpee - vacant

Members physically present: 15

Members present by phone: 1

LEGAL COUNSEL

Jeff Bernstein, Esq., BCK Law, PC

STAFF PRESENT:

Maggie Downey, Administrator
Austin Brandt, Power Supply Planner
Meredith Miller, Evaluation Manager
Phil Moffitt, Residential Manager
Lindsay Henderson, Analyst
Margaret Song, C&I Program Manager
Linda Stella, Administrative Assistant

PRESENTER:

Liz Argo, CVEC, Manager, Programs & Administration

Chr. Flynn called the meeting to order at 2:02 p.m. stating the Meeting Notice/Agenda had been duly posted on the Cape Light Compact website in accordance with the Open Meeting Law. The Chair acknowledged remote

participation of R. Toole who was unable to attend in person due to other obligations. She also inquired if anyone was recording the meeting, which there wasn't.

PUBLIC COMMENT

There were no members of the public present.

CONSIDERATION OF MEETING MINUTES

The Board considered the May 11, 2016 Meeting Minutes. *D. Anthony moved the Board vote to accept the minutes, seconded by R. Elkin and voted by roll call as follows:*

- | | | | |
|----------------------------|-----|--------------------------|-----|
| 1. D. Anthony – Barnstable | yes | 9. J. Peters – Sandwich | yes |
| 2. R. Schofield – Bourne | yes | 10. J. Buteau – Truro | yes |
| 3. D. Keuch – Brewster | yes | 11. R. Elkin – Wellfleet | yes |
| 4. P. Cocolis – Chatham | yes | 12. S. Hruby – W Tisbury | abs |
| 5. F. Fenlon – Eastham | yes | 13. J. Flynn – Yarmouth | yes |
| 6. R. Zweig – Falmouth | yes | | |
| 7. V. Bell – Harwich | yes | | |
| 8. R. Toole – Oak Bluffs | yes | | |

Motion carried in the affirmative (12-0-1)

TREASURER'S REPORT

P. Cocolis mentioned the Energy Efficiency MUNIS detail was not received from Barnstable County, as they are busy at the end of the fiscal year. He stated that the operating fund budget has not changed much from last month, and that this budget ends at the end of June. P. Cocolis stated that about 75% of the budget has been spent so far. He reminded the Board that, consistent with the auditors' direction, money left over will go back into Power Supply Reserve Fund.

C. Galazzi arrived at 2:06 pm.

P. Cocolis reviewed the Contract Summary sheet listing Contracts and Amendments he has approved, for the period of May 11 through June 6, which have been forwarded to the County Commissioners for execution and requested the Board vote to ratify his actions.

P. Cocolis moved the board vote to ratify the actions of the Compact Treasurer relative to Compact contracts from May 11, 2016 through June 6, 2016. The Compact Administrator is authorized and directed to take all actions necessary or appropriate to implement this vote and to execute and deliver all documents as may be necessary or appropriate to implement this vote, seconded by R. Schofield and voted by roll call as follows:

- | | | | |
|----------------------------|-----|--------------------------|-----|
| 1. D. Anthony – Barnstable | yes | 8. R. Toole – Oak Bluffs | yes |
| 2. R. Schofield – Bourne | yes | 9. C. Galazzi – Orleans | yes |
| 3. D. Keuch – Brewster | yes | 10. J. Peters – Sandwich | yes |
| 4. P. Cocolis – Chatham | yes | 11. J. Buteau – Truro | yes |
| 5. F. Fenlon – Eastham | yes | 12. R. Elkin – Wellfleet | yes |
| 6. R. Zweig – Falmouth | yes | 13. S. Hruby – W Tisbury | yes |
| 7. V. Bell – Harwich | yes | 14. J. Flynn – Yarmouth | yes |

Motion carried in the affirmative (14-0-0)

B. Crowell arrived at 2:10 pm.

CHAIRMAN'S REPORT

Chr. Flynn announced that today was the 2nd Annual celebrate Compact Staff Day, to recognize the hard work by all staff members. She mentioned that she will work with staff to include more helpful information for board members' folders' and for them to think what they may like to see. M. Downey stated that she will add the Board Members roles and responsibilities.

C&I UPDATE

M. Song updated the board members as to her visiting towns and meeting with DPW and Energy Committee members, regarding the energy efficiency programs. She extended an invitation for others to contact her if they would like to meet. She asked that the board members could contact her directly, if they had any questions. M. Song drew attention to an item that will be on the next board meeting for discussion. She stated that historically the commercial programs have been cost-effective and that they have tried to stay under \$1 per kWh. She has been working on municipal projects to ensure that they are cost-effective; however, the cost per kWh is higher, meaning that there is a potential to spend the budget at faster rate. M. Song stated that the Compact has done a lot of work with the municipalities since 2001, so the projects that are coming forth are larger, more expensive projects. P. Cocolis asked where the dollar figure came from, and M. Song stated that it was a staff decision to stay under \$1 per kWh. She said that the projects that the towns bringing to the Compact, the Compact needs to be aware of cost effectiveness. R. Zweig asked that BCR be explained and how is it defined. B. Crowell asked how the Compact calculates the cost of supply. M. Song stated that she will address these questions at the next board meeting. She also mentioned that a Compact vendor, The Weidt Group, will be at the next meeting to discuss the new construction program.

CVEC REPORT

Liz Argo gave an overview of CVEC and a report on where CVEC is. She presented the savings and earnings from their projects from 3/1/15-2/29/16. L. Argo stated that, although not running the whole year, there are costs and benefits with no cash investment by the towns. The net savings are almost \$2 million. L. Argo noted the CVEC Awards and accomplishments for last year.

Sheila Lyons entered at 2:25 p.m.

L. Argo stated CVEC is helping towns figure out net metering credits. D. Anthony said Barnstable has been recognized out of 27 communities for its use of solar. L. Argo stated that it's a good thing for Barnstable but that the Compact and CVEC should get the recognition.

L. Argo went back to 13 to 15 towns asking for adder to continue to maintain its services for all participants at the current level. They said yes, though not in time for FY 17; and that they will be reconsidered for FY 18. R. Zweig asked what the return on investment was for these projects. M. Downey stated that it is believed that the ratepayers initial investment of approx. \$3 million has been surpassed in savings to the Towns, who in turn pass those savings along to all rate payers. She stated that she doesn't have the construction numbers as those are the private companies' information.

POWER SUPPLY DISCUSSION

M. Downey stated that many other aggregators have decided to go greener with their supply (above the requirement of Renewable Portfolio Standards (RPS), and that the Board will be considering and discussing this option over the next several months. It was noted that the aggregators that have elected this option, at times, have higher electric rates than utility basic service.

A. Brandt made a presentation to the Board explaining what a renewable energy certificate (REC) is and how it relates to the renewable portfolio standard (RPS). R. Elkin asked what the risk was to existing contracts due to a legislation change. J. Bernstein stated that typically changes would not affect contracts that have already been done. C. Galazzi asked about the mix of electricity that comes to the Cape and the reporting of it. A. Brandt stated that ConEdison Solutions and NextEra have disclosure labels that are published monthly that has the mix information for the region but not specifically what comes to the Cape. A. Brandt stated that at next board meeting he would talk about voluntary green programs and different types of RECs.

ADMINISTRATOR'S REPORT

- FY17 Operating Budget

M Downey stated that the only change to the operating budget from last month was to the subscription line item. D. Anthony asked if the legal budget had capacity for any change in case of overage. M. Downey stated that yes there is enough capacity, but if a major rate case occurred then no. D. Anthony that because that line item is over 25% of budget, it would be a good idea to know what is happening. M Downey will give a quarterly report.

R. Toole dropped off call at 3:30 pm

P. Cocolis moved that the Board vote to appropriate the Cape Light Compact FY17 Operating Budget in the amount of \$892,347.23, seconded by R. Schofield and voted by roll call as follows:

1. S. Lyons – Barnstable County	yes	11. C. Galazzi – Orleans	yes
2. D. Anthony – Barnstable	yes	12. J. Peters – Sandwich	yes
3. R. Schofield – Bourne	yes	13. J. Buteau – Truro	yes
4. D. Keuch – Brewster	yes	14. R. Elkin – Wellfleet	yes
5. P. Cocolis – Chatham	yes	15. S. Hruby – W Tisbury	yes
6. B. Crowell – Dennis	yes	16. J. Flynn – Yarmouth	yes
7. F. Fenlon – Eastham	yes		
8. R. Zweig – Falmouth	yes		
9. V. Bell – Harwich	yes		
10. R. Toole – Oak Bluffs	dropped off		

Motion carried in the affirmative (15-0-0)

- M. Downey stated that she attended the C3E Symposium – Women in Energy in California the week before and that it was a great event.

R. Toole dialed back in to the meeting at 3:32 pm.

- M Downey stated that the Compact is working with the Cape Cod Tech Council to co- sponsor an event on June 29th at the Cape Media Center on grid modernization. She mentioned that the main speaker will be Karl Rábago from PACE. He will also be doing the radio show on the topic. She stated that he will be available to meet with Board on 28th to get more information about the Board's concerns. M. Downey stated that she will send out the information.
- M. Downey stated that Mashpee has elected Selectman Andrew Gottlieb to serve on the Board and that he will be at the July meeting. She said that the only seat not filled is Tisbury. M. Downey stated that there is a meeting on Monday with Rep. Hunt (at the Board's request) to discuss his proposed MA Legislation and the Energy Bill. She said that he has requested to see Executive Minutes. The Board

may want to review the opinion of the Attorney General about Purpose 10 and how it is construed. This meeting will be posted as both an Executive Committee and Governing Board meeting in case there is not a quorum of the whole Board. Chr. Flynn stated that the Board has never been found in violation of the Open Meeting Law.

- Update on Administrative Services Agreement

M. Downey stated that the agreement is red-lined and that she sent it to the County Administrator. The firm of Kopelman and Paige is currently reviewing the document.

- Legislative Update

J. Bernstein stated that the Energy Bill will hopefully be sent to the conference committee and that there was a late amendment filed by Cape Wind. J. Bernstein stated that the region could see the 2 new long-term contracts for renewable energy before the session ends, and that the Compact filed amendments.

BOARD MEMBER UPDATE

No updates from the Board Members.

EXECUTIVE SESSION

At 3:40 p.m. Chr. Flynn moved that the Board enter into Executive Session pursuant to MGL Chapter 30A §21(a) 3 to discuss strategy with respect to pending regulatory litigation relative to the Electric Distribution Companies and Interstate Natural Gas Pipeline Capacity Contracts, DPU 15-181, DPU 16-05 and DPU 16-07, Grid Modernization Plans filed by MA Distribution Companies, DPU 15-120 and 15-122 and the Cape Light Compact's Three-Year Energy Efficiency Plan (DPU 15-166) and in accordance with M.G.L. 30A, §21(a)(3) and §21(a)(10), to review and approve prior executive session meeting minutes for release to the public. I declare that an open session may have a detrimental effect on the Cape Light Compact's litigating position and that disclosure of confidential and competitively-sensitive information will adversely affect its ability to conduct business in relation to other entities making, selling or distributing electric power and energy. The Governing Board would not return to Open Session at the conclusion of Executive Session.

Seconded by R. Schofield and voted by roll call as follows:

1. S. Lyons – Barnstable County	yes	11. C. Galazzi – Orleans	yes
2. D. Anthony – Barnstable	yes	12. J. Peters – Sandwich	yes
3. R. Schofield – Bourne	yes	13. J. Buteau – Truro	yes
4. D. Keuch – Brewster	yes	14. R. Elkin – Wellfleet	yes
5. P. Cocolis – Chatham	yes	15. S. Hrubby – W Tisbury	yes
6. B. Crowell – Dennis	yes	16. J. Flynn – Yarmouth	yes
7. F. Fenlon – Eastham	yes		
8. R. Zweig – Falmouth	yes		
9. V. Bell – Harwich	yes		
10. R. Toole – Oak Bluffs	yes		

Motion carried in the affirmative (16-0-0)

Meeting adjourned at 5:08pm.

Respectfully submitted,
Linda Stella

LIST OF DOCUMENTS & EXHIBITS

- Meeting Notice/Agenda
- May 11, 2016 Meeting Minutes – Draft
- Summary of Contracts – 5/12/16-6/6/16
- FY 16 Operating Budget Report dated 6/8/2016
- FY 17 Operating Budget
- Pace Energy and Climate Center Article on Karl R. Rábago
- CVEC PV Projects: March 2015 to February 2016
- CVEC Review of Savings and Earnings from CVEC Portfolio:3/1/15 – 2/29/16
- CVEC PowerPoint Presentation 6/7/2016
- The Wonderful World of RECs 6/8/2016
- HB 4377 June 8, 2016 Version

**Cape Light Compact
Governing Board and Executive Committee
Open Session Meeting Minutes
Monday, June 13, 2016**

The Cape Light Compact Governing Board and Executive Committee met on Monday, June 13, 2016 in the Innovation Room, Open Cape Building, Barnstable County Complex, 3195 Main Street, Barnstable MA 02630 at 2:00 p.m.

PRESENT WERE:

1. Joyce Flynn, Chair, Yarmouth
2. Robert Schofield, Vice-Chair, Bourne
3. Peter Cocolis, Treasurer, Chatham
4. Ronald Zweig, Secretary, Falmouth
5. Richard Toole, Member at Large, Oak Bluffs – by phone
6. David Anthony, Barnstable
7. Brad Crowell, Dennis
8. Fred Fenlon, Eastham
9. Paul Pimentel, Edgartown – arrived at 2:04
10. Valerie Bell, Harwich
11. Andrew Gottlieb, Mashpee – by phone
12. Joshua Peters, Sandwich
13. Richard Elkin, Wellfleet – by phone

ABSENT WERE:

14. Michael Hebert, Aquinnah
15. Sheila Lyons, Barnstable County
16. Deane Keuch, Brewster
17. Tim Carroll, Chilmark
18. John Alley, Dukes County
19. Chris Galazzi, Orleans
20. Thomas Donegan, Provincetown
21. Tisbury - vacant
22. Joseph Buteau, Truro
23. Sue Hruby, W. Tisbury

Members physically present: 10
Members participating by phone: 3

STAFF PRESENT:

Maggie Downey, Administrator
Austin Brandt, Power Supply Planner
Meredith Miller, Evaluation Manager
Phil Moffitt, Residential Manager
Margaret Song, C&I Program Manager
Lindsay Henderson, Analyst

Representative Randy Hunt
Matt Liber, Aide to Representative Hunt

PUBLIC PRESENT:

Jim Killion, Assembly of Delegates
James Rogers
Liz Argo, CVEC
Scott Ridley, Ridley & Associates - Compact Consultant
Leo Cakounes, Barnstable County Commissioner

Chr. Flynn opened the meeting at 2:00 pm and declared this meeting as an Executive Committee Meeting only, as only nine members of the Board were physically present and a quorum of 12 was needed to convene as the

Governing Board; four members of the Executive Committee (one member participated remotely) out of five Executive Committee Members and a total of eight members were present. Chr. Flynn introduced the Board, Compact staff and public to Representative Hunt.

P. Pimentel arrived 2:03 pm.

MEETING WITH REPRESENTATIVE HUNT

Chr. Flynn reviewed the agenda and then turned the meeting over to M. Downey to discuss the information that can be found on the Compact's website. Rep. Hunt asked for clarification about who on the Board was able to speak given that there was no quorum. M. Downey and Chr. Flynn reviewed the protocols according to the Open Meeting Law.

- M. Downey stated that the Compact's website is made up of 3 main focuses: Energy Efficiency, Power Supply and Consumer Advocacy. She reviewed the various sections and what information is available, including under the Power Supply section which includes power supply contracts, pricing, options for consumers, and important information for consumers. She mentioned that the current residential and commercial contracts in this section have pricing strategies and are therefore redacted, so as not to jeopardize our bidding capability. M. Downey stated that the old contracts listed are no longer redacted and that the Attorney General's Office has reviewed all of the Compact contracts without redactions. She said that many municipal aggregators bid based on a set price at a specific time in the market, but over the years the Compact has moved to a pricing strategy. M. Downey reviewed the Compact's Department of Public Utilities ("DPU") approved Energy Efficiency Plan which includes enhanced incentives for various rate classes of customers. The municipal 100% incentive is applicable to all federal and state electric accounts, not just the town electric accounts, and was approved by the DPU. The Compact's enhanced incentives also extend to certain non-profits. In the previous few years, the Compact targeted smaller businesses through the "Main Streets" initiative, which was able to offer better pricing and incentives on cost effective measures due to the targeted nature of the effort. She stated that the Compact is required to report annually to the DPU on the aggregation, and the DPU also has oversight on the energy efficiency budget and savings.
- Chr. Flynn asked Rep. Hunt about his proposal to require that aggregation board members be elected rather than appointed.
 - Rep. Hunt asked first if the Towns were paying into the energy efficiency fund, which Compact staff confirmed that they were. He then inquired about the mil adder in the power supply program. M. Downey clarified that the mil adder is on the supply portion of the electric bill and that only customers who have not opted out of Cape Light Compact's supply, pay that adder. Rep. Hunt asked if municipalities were on the Compact's supply and M. Downey stated that they were not, as they are on a separate contract. R. Schofield clarified that the municipalities requested to have separate contracts because of their need to budget and have pricing stability, so they needed longer term fixed pricing than what the aggregation provided.
 - Rep. Hunt referenced his home energy assessment and that he had \$3,300 worth of work completed and that he only paid around \$800. He said that the towns have "no skin in the game" because they get a 100% incentive for energy efficiency work. Rep. Hunt mentioned that the PV that was referenced in the Cape Cod Times article was probably CVEC that did that project, which M. Downey confirmed. M. Downey said that the energy efficiency charges are based on the class of customer. M. Song stated that the charge based on rate code and that it depended on the size of the customer based on usage. She said that these funds are collected from ratepayers by Eversource and distributed to the Compact. Rep. Hunt stated that if his neighbor doesn't participate in the program, then they are paying more because their usage would be higher. He

asked what the budget for energy efficiency was for 2016, and Chr. Flynn stated that it was just under \$40 million, and that our operating fund, which covers the Compact's operating costs, is just under \$1 million for fiscal year 2017. P. Cocolis stated that the energy efficiency budget is highly regulated and that it is built from the bottom up to provide the most benefit to ratepayers on Cape Cod and Martha's Vineyard. The monies are collected by Eversource and put into the Compact's fund that is administered by our fiscal agent Barnstable County.

- o Rep. Hunt mentioned that the Compact was going to get the best rates when the aggregation was sold to the towns. He asked how much better off have people been with Cape Light Compact, and M. Downey stated that the Compact has been lower than Eversource (formerly known as NSTAR) more than 60% of the time. She did state that there were two pricing periods where our price was much higher due to a hurricane and the financial crisis. M. Downey stated that she wanted to have a further discussion with Rep. Hunt, as the local distribution company has several advantages over competitive suppliers – call center and internal billing/accounting systems in existence on their regulated functions. Rep. Hunt stated that the Compact's power supply aggregation has cost ratepayers more than Eversource, and he referenced figures of \$30 or \$40 million that were mentioned in an article a few years ago. Rep. Hunt stated that the municipalities did not have to put any skin in the game for energy efficiency and are receiving enormous benefits. He also mentioned that if the Compact's board members were elected this issue of enhanced incentives may not change, however if the people can elect the board, then things would change. Rep. Hunt believes that it is a conflict of interest that the towns who receive enormous benefits are appointing their members. M. Song mentioned again that the Board voted to have 100% incentives for other customer classes - non-profits, low income and year round residential tenants receive 100% incentives, and commercial tenants receive up to 95% incentives.
- o Chr. Flynn stated that the Compact's mission for power supply is not just to get the best rates, but to get the best terms & conditions (no fees, no contracts, etc.).
- o M. Downey asked about his proposal for electing board members and stated that this board is under Ch. 40 and was allowed to operate by an Inter-Governmental Agreement (IGA). She asked what would happen in the event where a town did not have someone running for the position, as it is a lot of work to run a campaign and can get expensive. Rep. Hunt stated that this requirement would not apply to single town aggregators, but only to multi-town aggregators. His main concern is that he believes that there is a conflict of interest.

Richard Toole dropped off call at 3:05 pm.

- o M. Downey asked for clarification that if there was no 100% incentive for municipalities, then the conflict wouldn't be there? Rep. Hunt said that it would create a conflict for the boards of selectmen to appoint someone with their same interest. He also said that municipalities are not paying a high amount for energy efficiency, which M. Downey clarified again that they are paying based on usage. M. Downey stated that the Compact could do some analysis as to how much money the municipalities pay into the energy efficiency fund and the benefits that they receive. M. Song stated that the town energy efficiency budgets are created based upon the population of the town provided by the most recent census.
- o Rep. Hunt stated that he would be filing this legislation in January, so there was time to further discuss the issue of elected board members. M. Downey stated that initially when the Compact was created, there were several selectmen on the Compact board. Chr. Flynn stated that there was a concern that selectmen may not be able to run for the board election as they may not be able to hold two elected positions, and that town charters may also pose an issue. Rep. Hunt

stated that there is no restriction in Sandwich as the Health Agent is also on the School Committee. Chr. Flynn stated that there is also a flexibility issue as the Compact runs on tight timelines for filings, and that it could take time in filling the elected positions, which would create issues for the Board.

- o Chr. Flynn asked for Richard Toole's perspective from the Vineyard (not realizing he had dropped off the call). *R. Toole called back in at 3:15 pm.*
- o R. Toole stated that elections will open it up to people who have lots of money and won't be looking out for the ratepayers but only their own interests. He stated that the purpose of the Compact is to reduce energy and protect the climate. He also mentioned that he spends his own money to travel over for the Compact meetings sometimes multiple times a month and that it is too bad that there is so much distrust of the Compact. He concluded by stating that he thought this was a bad idea.
- o Chr. Flynn stated a concern about partisanship, especially given recent campaigns. Rep. Hunt said that this would be a non-partisan campaign. P. Cocolis stated that he was concerned about Rep. Hunt's statement in the article about "control over the board." If someone doesn't want to support the Compact then they can opt out of the power supply program, and then they would be paying the Compact for administrative functions.
- o Rep. Hunt asked if the IGA has been revised, what the status was and if it has been ratified by the towns. M. Downey stated that when the initial agreement was prepared with all town counsels, the IGA gave the authority for future updates to be approved by the Compact Board. R. Zweig stated that the recent amendments to the IGA were brought to the selectmen for their review before the Board's approval. M. Downey stated that Harwich did not want the Compact board member to vote on the IGA before they did, so he abstained.
- o Rep. Hunt stated that an elected Compact board is big issue. If the board is elected, he will not ask for additional oversight of the Compact.
- o Rep. Hunt stated for that any board that may go into executive session, he is proposing that the minutes be posted on the anniversary of the meeting or before, and if an extension needs to be granted then the Board may request a 90-day extension of the Attorney General's office and continue every 90 days if needed. M. Downey asked him if that would apply to released and redacted, or would the entire document need to be unredacted. Rep. Hunt stated that he hadn't thought of that. M. Downey stated that in the packet that he received from 7/1/10 through 6/8/16, the Board held 20 executive session meetings using purpose 10, and all have been released with only 4 still having redactions. M. Downey asked respectively if this regulation would apply to the legislature and Rep. Hunt stated that no it wouldn't.
- o M. Downey stated that the last several years the Compact has improved its operations and transparency by providing more information on our website such as: financials, power supply contracts, minutes, board packets, etc. If information has not been available it was because it slipped through the cracks, and not because the Compact was trying to be sneaky.
- o Rep. Hunt asked about the Renewable Energy Certificate contracts. M. Downey stated that they contain competitively sensitive information and the law allows for information to be redacted.
- o Rep. Hunt stated that it would be a positive for the Compact to have an elected board as it would raise the board's profile allowing them to push back on things.
- o Chr. Flynn stated that Rep. Hunt could follow up with A. Brandt regarding any power supply questions that he may have. Rep. Hunt stated that if there are reasons for documents to be kept sealed that that is fine. The executive session minutes regulation is not geared towards the Compact specifically, but boards in general.

- o Chr. Flynn asked if Rep. Hunt thought the current board was acting illegally and Rep. Hunt said no. She pointed out that Rep. Hunt had claimed in the Cape Cod times article that the Compact had used energy efficiency funds to buy solar equipment for towns, which would be illegal. She asked if Rep. Hunt would issue a correction to the Cape Cod Times regarding his statement. Rep. Hunt stated that he would have his aide issue that correction.

Meeting adjourned at 3:37 pm

Respectfully submitted,
Lindsay Henderson

LIST OF DOCUMENTS & EXHIBITS

- Meeting Notice/Agenda
- April 13, 2016 Meeting Minutes – draft
- Summary of Contracts – April 13, 2016 – May 11, 2016
- FY16 Operating Budget Report dated 5/11/16
- 2016 EE Budget Report
- 2nd Draft FY17 Budget
- BCK Memo – Legal Services Budget for FY2017
- Amendment #1025 to H.4200

Maggie Downey

From: Tyler Studds <TStudds@MassCEC.com>
Sent: Monday, July 11, 2016 3:24 PM
To: Austin Brandt; Maggie Downey
Subject: FW: FOR IMMEDIATE RELEASE: Baker-Polito Administration Awards \$2.3 Million for Programs to Save Low-Income Residents Money on Energy Bills

From: "Gronendyke, Katie (EEA)" <Katie.Gronendyke@MassMail.State.MA.US>
Date: July 11, 2016 at 1:52:25 PM EDT
To: "katie.gronendyke@state.ma.us" <katie.gronendyke@state.ma.us>
Subject: FOR IMMEDIATE RELEASE: Baker-Polito Administration Awards \$2.3 Million for Programs to Save Low-Income Residents Money on Energy Bills



Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs

Governor Charlie Baker
Lieutenant Governor Karyn Polito
Secretary Matthew A. Beaton

Contact:

Katie Gronendyke (EEA)
(617) 626-1129
katie.gronendyke@state.ma.us

Catherine Williams (MassCEC)
(617) 315-9386
cwilliams@masscec.com

Kevin O'Shea (DOER)
(617) 626-7362
kevin.o'shea@state.ma.us

Baker-Polito Administration Awards \$2.3 Million for Programs to Save Low-Income Residents Money on Energy Bills

BOSTON - June 11, 2016 – The Baker-Polito Administration today announced \$2.3 million in funding to four organizations that will use clean and efficient energy technologies to lower energy bills for low-income residents and multi-family buildings across the Commonwealth. Part of the Baker-Polito Administration's Affordable Access to Clean and Efficient Energy Initiative, the funding is expected to save residents and property owners \$1.2 million annually on their energy bills.

"These grants will provide cost-saving opportunities to Massachusetts families and low-income residents who need it most," said **Governor Charlie Baker**. "Our administration is working to provide everyone in Massachusetts affordable access to the economic and environmental benefits of clean energy and energy efficiency."

"Families across Massachusetts, regardless of income, should be able to save money and improve their environment through clean and efficient energy technologies," said **Lieutenant Governor Karyn Polito**. "This assistance will help the Massachusetts residents who are most affected by high energy costs, as well as support the Commonwealth's growing clean energy industry."

"The Baker-Polito Administration is committed to supporting programs that connect low- and moderate-income Massachusetts residents with technologies that use less energy and provide the benefits of healthier, more comfortable homes," said **Energy and Environmental Affairs (EEA) Secretary Matthew Beaton**. "These programs will also help reduce the Commonwealth's greenhouse gas emissions and energy use."

The funding, provided by the Massachusetts Clean Energy Center (MassCEC), will support:

- **Action, Inc. – Statewide - \$900,000** – Funding for the installation of high-efficiency air-source heat pumps in for low-income residents living in single-family homes with electric baseboard heating. The heat pump installations will include comprehensive energy efficiency upgrades, including weatherization, lighting and appliance replacements.
- **New Ecology, Inc. –Statewide– \$600,000** – Funding for the installation of heating and cooling monitoring equipment in approximately 100 low-income, multi-family buildings, with the goal of reducing energy costs by 5 to 20 percent.
- **Local Initiatives Support Corporation – Statewide – \$600,000** – Funding for up to 30 comprehensive energy audits in affordable multi-family buildings approaching refinancing to demonstrate an integrated approach to systematically achieve deep energy efficiency savings and implement renewable technologies.
- **Cape Light Compact – Cape Cod and Martha’s Vineyard – \$250,000** – Funding for the installation of solar electricity at low-income, single- and multi-family homes, using solar renewable energy credit (SREC) payments to fund additional installations.

“These programs will help lessen the burden for low-income residents across the Commonwealth who spend a disproportionate share of their income on energy bills,” said **MassCEC Interim CEO Steve Pike**.

Launched in February, the Baker-Polito Administration’s Affordable Access to Clean and Efficient Energy Initiative is focused on coordinating the agencies that serve the energy and housing needs of the Commonwealth’s low- and moderate-income residents and identifying the most effective strategies to direct funding. The initiative includes an inter-secretariat working group and a \$15 million commitment from the Department of Energy Resources (DOER) and MassCEC for clean energy programs to expand opportunities for low- and moderate-income residents.

“Massachusetts is a national leader in energy efficiency, ranking first in the country the past five years,” said **DOER Commissioner Judith Judson**. “DOER is proud to work with our partners across state government to increase access to our innovative energy savings to all Massachusetts residents, regardless of income.”

“These investments are wins all around,” said **State Senator Benjamin Downing (D-Pittsfield), Senate Chairman of the Joint Committee on Telecommunications, Utilities and Energy**. “They help hardworking families save a little bit, they help the environment by reducing energy demand and they help the state continue to lead the nation in energy efficiency.”

“Massachusetts is on the cutting edge in creating solutions that drive down our energy costs and shrink our carbon footprint,” stated **State Representative Thomas A. Golden, Jr. (D-Lowell), House Chairman of the Joint Committee on Telecommunication, Utilities, and Energy**. “Thanks to funding from the Baker Administration’s Affordable Access to Clean and Efficient Energy Initiative, these innovative measures will benefit low-income individuals and families in our communities.”

The grants are funded through MassCEC’s Renewable Energy Trust, which was created by the Massachusetts Legislature in 1998. The trust is funded by a systems benefit charge paid by electric customers of investor-owned utilities in the state, along with municipal electric departments that have opted to participate in the program. The average residential customer contributes 32 cents to the Renewable Energy Trust each month.

###

Follow EEA Secretary Beaton on Twitter:..... www.twitter.com/massecca
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Visit the Energy Smarts blog:..... www.mass.gov/blog/energy
Visit The Great Outdoors blog:.....www.mass.gov/blog/environment
Visit our website:..... www.mass.gov/cca

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Katie Gronendyke
Press Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900, Boston, MA 02114
Office: 617-626-1129 / Mobile: 617-862-1380

Agenda Action Request Cape Light Compact Meeting Date: 7/13/2016



*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*

Employee Accrued Time

REQUESTED BY: Maggie Downey

Proposed Motion(s)

I move the Board vote to allow eligible Compact staff to buy-back up to three weeks of vacation and/or compensatory time in FY17.

The Compact Administrator is authorized and directed to take all actions necessary or appropriate to implement this vote, and to execute and deliver all documents as may be necessary or appropriate to implement this vote.

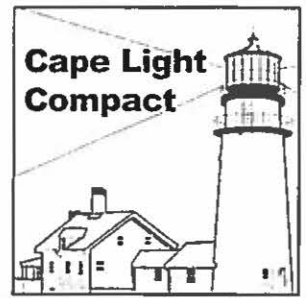
Additional Information

- Cape Light Compact staff must be paid all earned vacation and compensatory time upon separation of employment (e.g. retirement and/or termination).
- Compact Administrator recommends that Board adopt a policy to eliminate staff accruals over the next three years. The proposed vote above is the first of three proposed votes.
- In order to reduce the liability resulting from Cape Light Compact staff accruing vacation and compensatory time, the Board establishes the following eligibility requirements for staff:
 - All exempt employees with accrued compensatory time;
 - All exempt employees with over 5 weeks of accrued vacation days on the first day of the fiscal year (July 1).

Record of Board Action

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

Agenda Action Request Cape Light Compact Meeting Date: 7/13/2016



- 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*

FY17 Employee Cost of Living Adjustment (COLA)

REQUESTED BY: Maggie Downey

Proposed Motion(s)

I move the Board vote to approve the FY17 employee cost of living adjustment (COLA) in the amount of 2%, and to request that Barnstable County implement the COLA as of July 1, 2016.

The Compact Administrator is authorized and directed to take all actions necessary or appropriate to implement this vote, and to execute and deliver all documents as may be necessary or appropriate to implement this vote.

Additional Information

- Cape Light Compact's approved energy efficiency and operating budgets include a 2% COLA for Compact employees.
- Barnstable County has requested that the Compact Board have a separate vote affirming that the County can implement a 2% COLA for Compact employees

Record of Board Action

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

**Agenda Action Request
Cape Light Compact
Meeting Date: 7/13/2016**



- Aquinnah*
- Barnstable*
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- Oak Bluffs*
- Orleans*
- Provincetown*
- Sandwich*
- Tisbury*
- Truro*
- Wellfleet*
- West Tisbury*
- Yarmouth*

Ratify Actions of Treasurer

REQUESTED BY: Peter Cocolis

Proposed Motion(s)

I move the Board vote to ratify the actions of the Compact Treasurer relative to Compact contracts from June 6, 2016 through July 13, 2016.

The Compact Administrator is authorized and directed to take all actions necessary or appropriate to implement this vote, and to execute and deliver all documents as may be necessary or appropriate to implement this vote.

Additional Information

- **This motion is consistent with the Board's March 11, 2015 vote to establish a contract review process**

Record of Board Action

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

Vendor Name	Amount of Amendment	Amount of Contract	Term	Purpose	Competitively Procured Y/N	P. Cocolis Approved/ Denied	Commissioners Approved
Kema Inc.		\$15,884.00	3/1/16 - 8/31/16	2016 contract with DNV GL for certification of FCM Portfolio Precision Analysis	Exempt	Approved 6/9/2016	6/16/2016
ICF RESOURCES, LLC	\$634,995.00		1/1/2016 -12/31/2016	Increased participation in the CICEE new construction program	Exempt	Approved 7/5/2016	7/6/2016
Ridley & Associates	\$53,170.00		7/1/2016 - 6/30/2017	Marketing and Outreach Services	Exempt	Approved 7/6/2016	pending Commissioners Approval

FOR 2016 12

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	% USED

120 CAPE LIGHT COMPACT							

8074 CAPE LIGHT COMPACT OPERTG FUND							

8074 5100	CLC OPERTG FD-SALARIES						
	0.00	218,086.00	216,469.78	24,383.50	0.00	1,616.22	99.3%
8074 5213	CLC OPERTG FD-TELEPHONES						
	0.00	3,000.00	267.45	113.73	42.55	2,690.00	10.3%
8074 5220	CLC OPERTG FD-UTILITIES						
	0.00	4,500.00	4,182.18	537.65	62.35	255.47	94.3%
8074 5233	CLC OPERTG FD-AUDIT/ACCTG SVCS						
	0.00	29,800.00	20,624.50	7,218.39	0.00	9,175.50	69.2%
8074 5235	CLC OPERTG FD-LEGAL SERVICES						
	0.00	289,375.00	179,995.86	13,360.22	100,000.00	9,379.14	96.8%
8074 5238	CLC OPERTG FD-IT COUNTY SUPPRT						
	0.00	8,750.00	8,750.00	0.00	0.00	0.00	100.0%
8074 5239	CLC OPERTG FD-CONTRACTUAL						
	0.00	96,566.00	67,030.30	10,839.57	24,627.18	4,908.52	94.9%
8074 5244	CLC OPERATG FD-PROFESS DEVELOP						
	0.00	5,000.00	1,160.00	0.00	0.00	3,840.00	23.2%
8074 5270	CLC OPERATG FD-CUSTO/MAIN-CNTY						
	0.00	9,226.00	9,226.00	0.00	0.00	0.00	100.0%
8074 5281	CLC OPERTG FD-OUTSTATE TRAVEL						
	0.00	6,000.00	2,101.75	0.00	1,000.00	2,898.25	51.7%
8074 5282	CLC OPERTG FD-IN STATE TRAVEL						
	0.00	20,000.00	17,751.43	3,015.32	1,553.57	695.00	96.5%
8074 5291	CLC OPERTG FD-ADVERTISING						
	0.00	55,561.00	50,642.88	10,357.90	2,211.00	2,707.12	95.1%
8074 5293	CLC OPER-OUTRCH/MARKEIG CONTRC						
	0.00	76,520.75	72,450.23	0.00	1,875.00	2,195.52	97.1%
8074 5294	CLC OPERTG FD-FREIGHT/SHIPPG						
	0.00	250.00	35.14	0.00	0.00	214.86	14.1%
8074 5295	CLC OPERTG FD-PRINTG/COPYG						
	0.00	13,727.30	9,861.52	1,916.57	2,172.74	1,693.04	87.7%
8074 5298	CLC OPERTG-LED ST LIGHTS-CONTR						
	0.00	7,444.25	0.00	0.00	0.00	7,444.25	.0%
8074 5320	CLC OPERTG FD-FOOD SUPPLIES						
	0.00	500.00	447.89	0.00	0.00	52.11	89.6%
8074 5361	CLC OPERTG FD-POSTAGE						
	0.00	13,851.52	8,958.44	1,141.16	3,006.80	1,886.28	86.4%
8074 5399	CLC OPERTG FD-SUPPLIES						
	0.00	2,000.00	661.38	25.31	5.86	1,332.76	33.4%

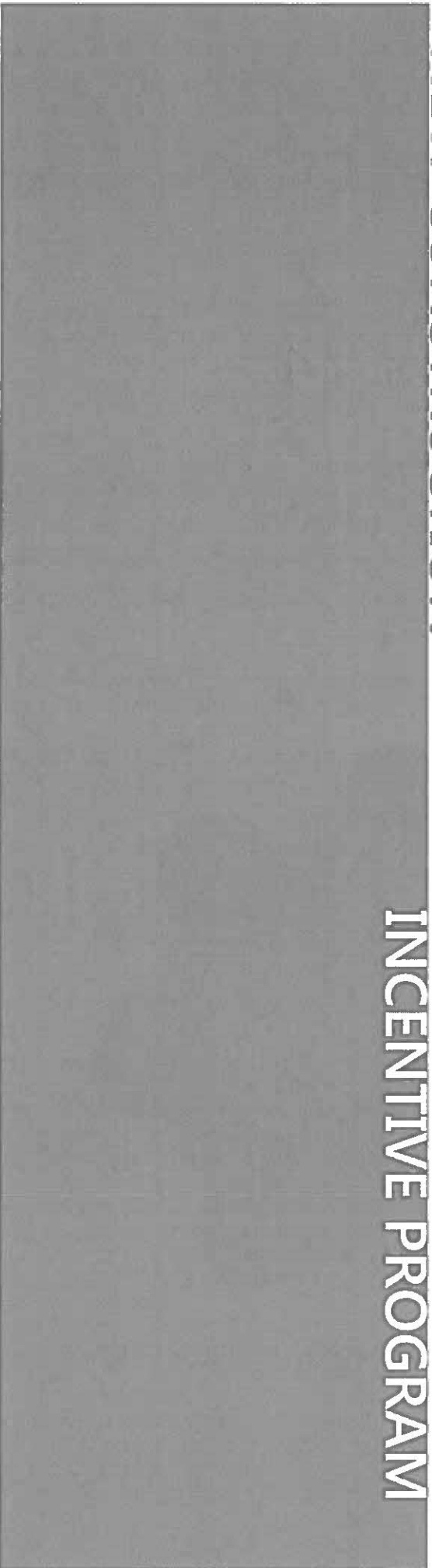
FOR 2016 12

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	% USED
8074 5421							
	0.00	30,000.00	26,414.95	200.00	0.00	3,585.04	88.0%
8074 5429							
	0.00	2,500.00	0.00	0.00	0.00	2,500.00	.0%
8074 5433							
	0.00	8,208.51	7,651.96	0.00	0.00	556.55	93.2%
8074 5462							
	0.00	17,500.00	17,500.00	2,774.56	0.00	0.00	100.0%
8074 5463							
	0.00	10,000.00	0.00	0.00	0.00	10,000.00	.0%
8074 5499							
	0.00	200.00	38.44	0.00	0.00	161.56	19.2%
8074 5981							
	0.00	45,481.00	35,081.05	-10,399.95	0.00	10,399.95	77.1%
8074 5983							
	0.00	33,557.00	18,069.08	2,120.38	0.00	15,487.92	53.8%
8074 5984							
	0.00	3,217.00	3,020.71	339.83	0.00	196.29	93.9%
8074 5989							
	0.00	1,500.00	82.62	82.62	0.00	1,417.38	5.5%
8074 5990							
	0.00	4,791.49	4,791.49	0.00	0.00	0.00	100.0%
TOTAL EXPENSES	0.00	1,017,112.82	783,267.04	68,026.75	136,557.05	97,288.73	
GRAND TOTAL	0.00	1,017,112.82	783,267.04	68,026.75	136,557.05	97,288.73	90.4%

** END OF REPORT - Generated by Maggie Downey **

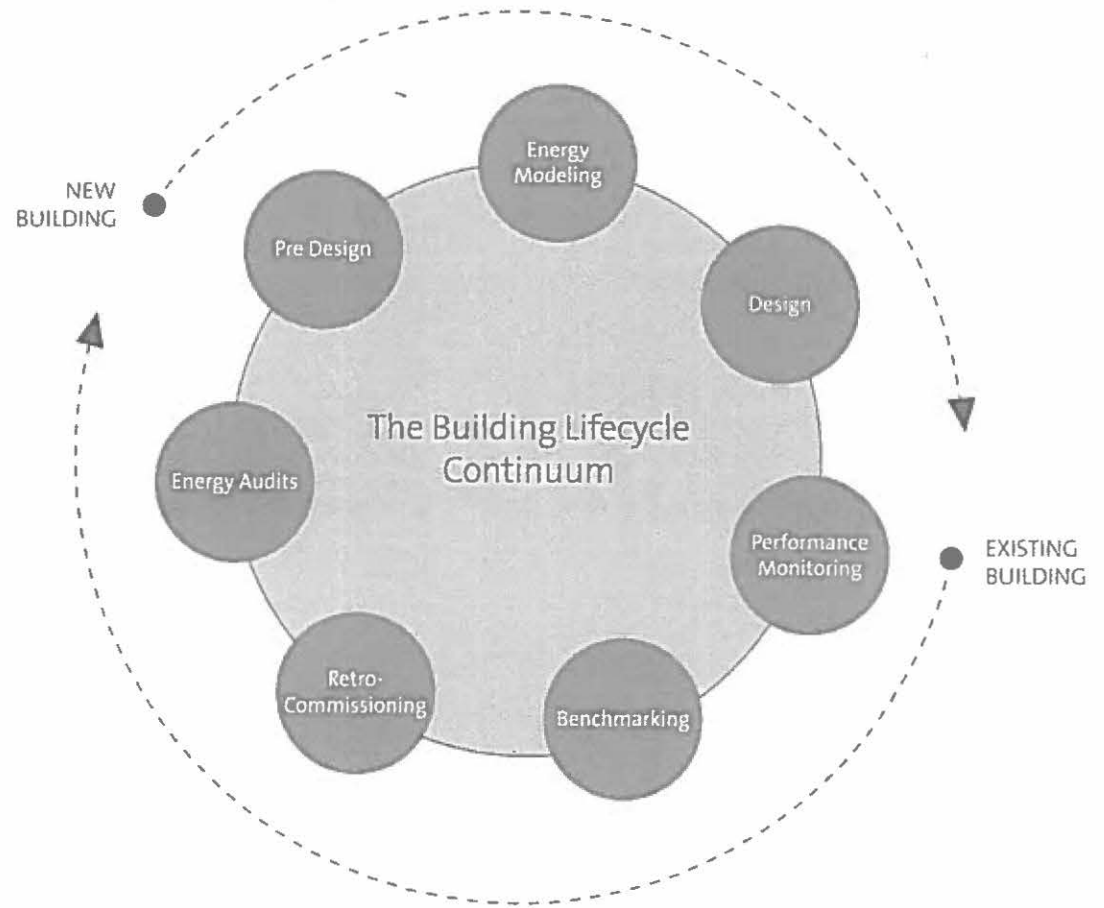
NEW CONSTRUCTION

INCENTIVE PROGRAM



The Weidt Group

Who we are



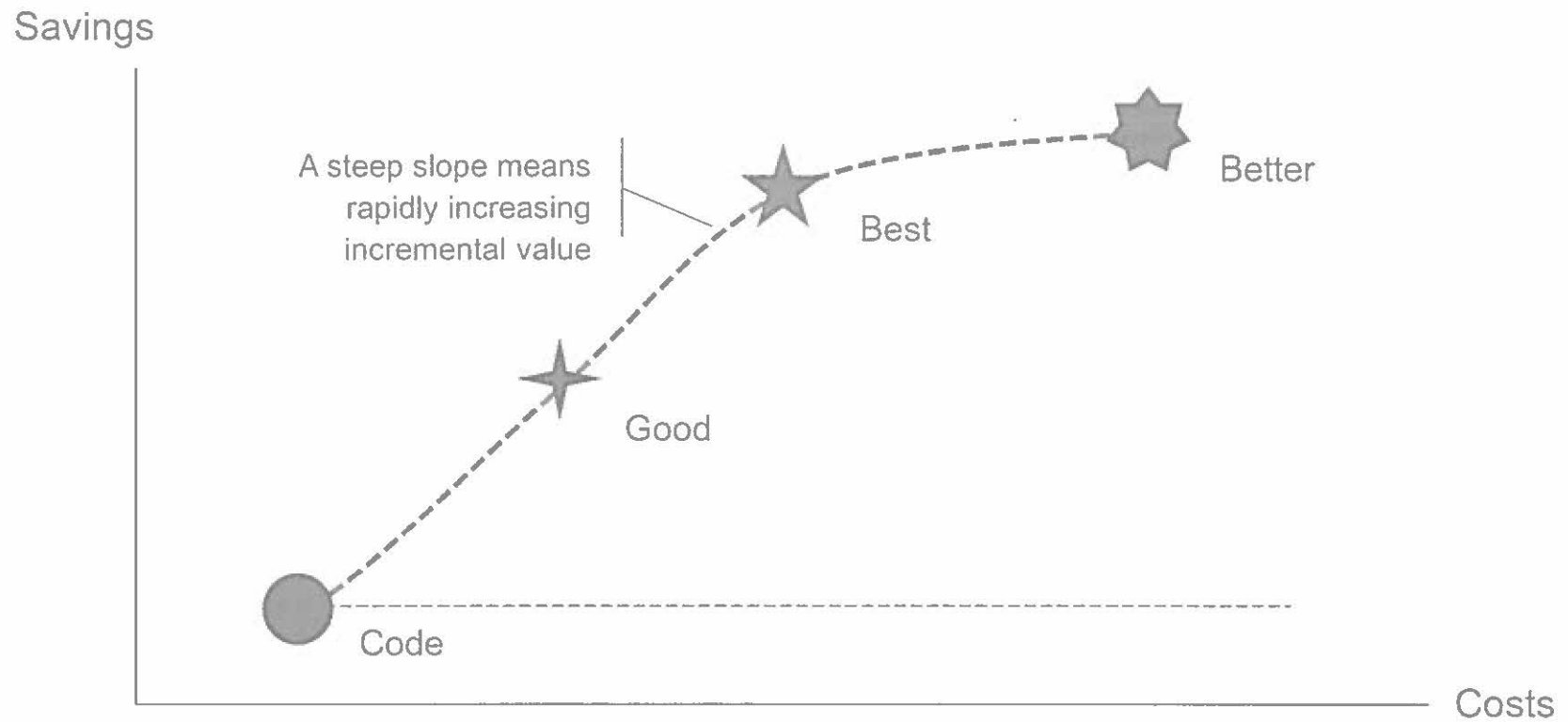
Incentive Program Process

Four steps



Optimization

Spending the Right Amount in Each Category of Savings



Incentive Tiers

Incentives	Savings above code*	\$/kWh	\$/therm**,***
Design Team Incentives \$15,000 cap	15-30%	\$0.04	\$0.34**
	above 30%	\$0.07	\$0.34
Customer Incentives	below 15%	\$0.20	\$1.70***
	15-30%	\$0.27	\$1.70
	above 30%	\$0.35	\$1.70

*Compared to IECC 2012.
 **National Grid design team incentives for projects > 100,000sf.
 ***National Grid where applicable. Subject to project screening by National Grid.

It's About Making Smarter Decisions

Capital costs weighed against operating costs

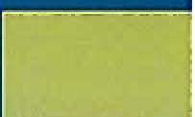


Savings Versus Baseline

	BUNDLE 4	BUNDLE 5	BUNDLE 6
Energy Cost Savings	\$20,180 7%	\$58,696 22%	\$84,457 32%
Peak kW Savings	-21.8 -3%	154.5 19%	272.8 36%
kWh Savings	113,098 6%	317,946 17%	545,342 30%
Therm Savings	23,921 27%	29,859 34%	25,438 31%
Incremental First Cost	\$379,216	\$878,911	\$1,313,128
Projected Incentive	\$16,484	\$89,248	\$143,733
Net Incremental First Cost	\$362,732	\$789,663	\$1,169,395
Payback with Incentive	18.0	13.5	13.8
EUI kBTU/sf	68	61	56

C&I Incentives

POLICY DISCUSSION





Green Communities Legislation

- ▶ The GCA requires the PAs to acquire all cost-effective energy efficiency resources in their Three year Plans
- ▶ DPU has affirmed that the Benefit-Cost Ratio is the right test to use.

Cost/Annual kWh v BCR

Cost/Annual kWh

- ▶ Looks at only the incentive versus the annual kWh
- ▶ Term Sheet Agreement with Attorney General, Department of Energy Resources and filed with the Department of Public Utilities
- ▶ Example: You have a \$100 project that has 100 annual kWh savings. You provide an incentive of \$10.
- ▶ $\text{Cost/annual kWh} = \$10/100 \text{ kWh} = \$0.10/\text{kWh}$

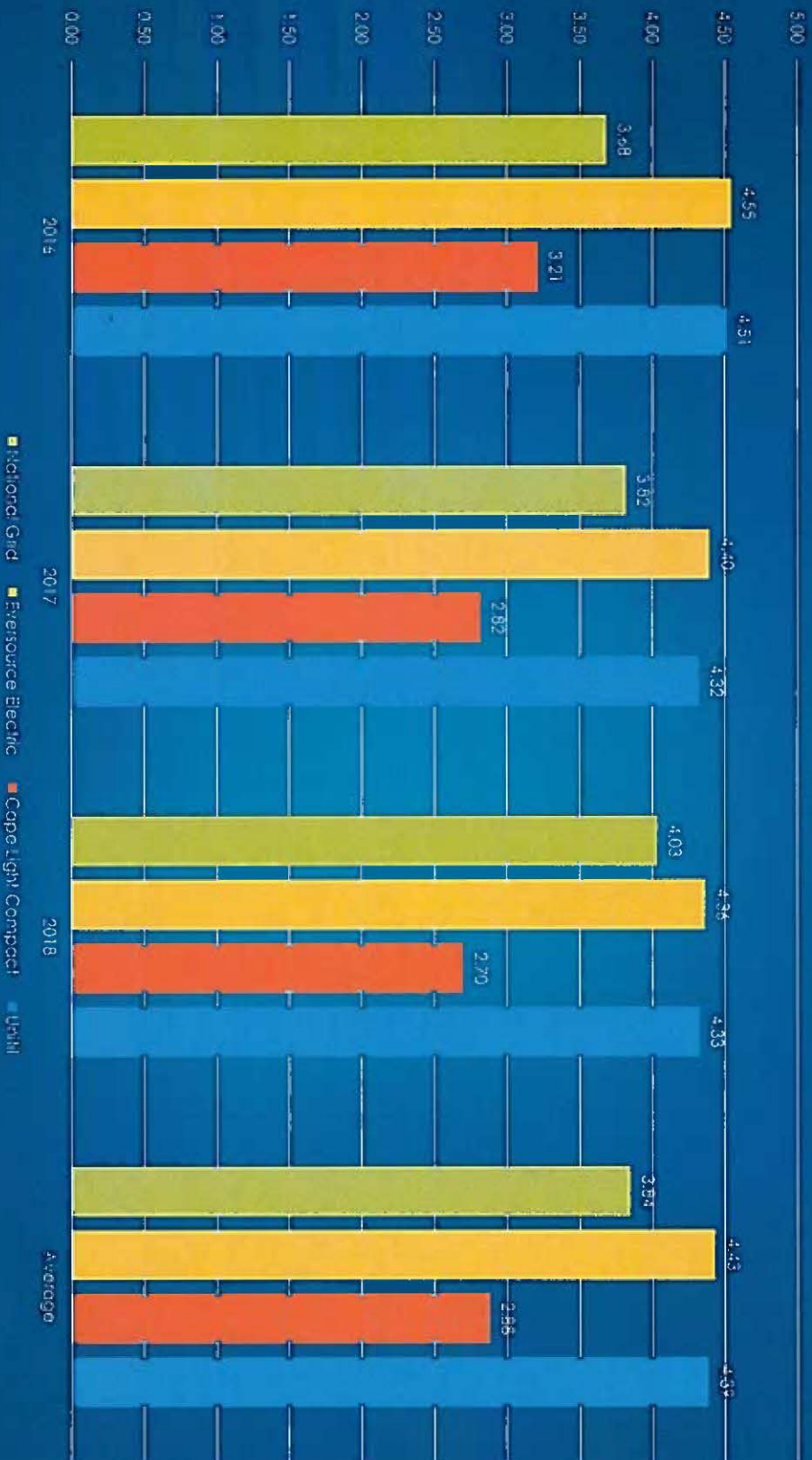
Benefit-Cost Ratio

- ▶ Looks at all savings and other benefits
- ▶ Looks at all costs (including what the customer pays)
- ▶ Affirmed as the "test" to use
- ▶ Example: You have \$100 project that has 100 annual kWh savings plus other benefits so that the total value is "worth" \$100.
- ▶ $\text{BCR} = \$100/\$100 = 1.0$

2016-2018 Planned \$/Annual kWh



2016-2018 Planned BCRs for C&I



■ National Grid
 ■ Eversource Electric
 ■ Cape Light Compact
 ■ Unitil

Example of Current Project

- ▶ 41 lights - interior and exterior
- ▶ Current technology is metal halide and high pressure sodium
- ▶ Proposal is to convert to LED technology
- ▶ These lights are on for 84 hours/week (12 hours/day)
- ▶ Savings is 14,856 annual kWh
- ▶ Proposed incentive is \$14,958.60
- ▶ Cost/kWh = \$1.01
- ▶ BCR = 1.34

What's the issue?

Costs and Bill

Impacts

If spend is higher than planned, then potential for mid-term modifications to ask for more funds

Lost Opportunities

As the programs mature, will we miss opportunities?

Other Impacts

With increases with codes and standards, savings are expected to drop. Will this compound the issues?

Sense of the board

Does the Board support increasing the cost per kWh above what we have in the existing Three-Year Plan?

The Wonderful World of RECs

A Three-Part Mini-Series

Part 2: Beyond the Basics

July 13, 2016

Cape Light Compact Governing Board Meeting

By: Austin Brandt, Power Supply Planner

**Cape Light
Compact**



RECs, not



Working Together Toward A Smarter Energy Future

In this episode...



- Review of Part 1
- Different types of RECs
 - In MA and elsewhere
 - How different REC types drive (or don't drive) new renewable energy development
 - How RPS/RECs affects retail pricing
- Voluntary green programs
 - How they can help drive renewable energy development
 - Current CLC Green program model
- Green aggregations
- Preview of Part 3

Review: Terminology



- RPS – Renewable Portfolio Standard: “...a statutory obligation that suppliers [...] obtain a percentage of electricity from qualifying Units for their retail customers.” <http://www.mass.gov/eea/energy-utilities-clean-tech/renewable-energy/rps-aps/rps-and-aps-program-summaries.html>
 - APS - Alternative Portfolio Standard: related program for alternative, non-renewable energy technologies, such as Combined Heat and Power (CHP)
- REC – Renewable Energy Certificate: a non-tangible certificate that represents 1 MWh (1,000 kWh) of electricity generated by a state-qualified renewable energy source.

Review: Terminology



- LSE – Load-Serving Entity: Companies (competitive suppliers or distribution companies) that sell electricity to customers (e.g., ConEdison Solutions)
 - CLC is not a LSE, but CLC’s power suppliers are
- NEPOOL GIS – New England Power Pool Generation Information System: web-based REC accounting system, where RECs are recorded, traded, and reserved/retired.

Review: Why have a RPS?



- Many states have public policy goals related to supporting and expanding renewable energy resources
- Most electric generation is privately developed and owned. However, states retain authority to regulate the distribution and sale of electricity.
- All else being equal (without RPS or additional incentives), private energy developers tend to develop traditional thermal energy/fossil fuel resources because they are dispatch-able and therefore provide a greater degree of reliability. They are often cheaper on a per kW basis.
 - This creates a “missing money” problem
- **RPS helps solve the missing money problem by creating a separate renewable market that enables and incentivizes private entities to invest development capital in order to meet public policy goals.**

Review: Why do we have RECs?



- Electricity is different than most other commodities in that the product (electrons) flowing through the power grid can almost never be traced back to a specific source.
- However, there is demand for electricity from certain types (e.g., renewable) of resources due to their characteristics. In order for the consumer(s) to financially incentivize preferred types of resources above others, payment needs to be directed towards resources with the desired characteristics, despite being unable to exclusively purchase the electrons themselves from that resource.

Review: Why do we have RECs?



- To capture the characteristics (including environmental) of the electricity being produced (where, when, how it was produced, associated emissions, etc.), certificates are created for every MWh a generator produces. These are traded separately from the electricity itself, and have a separate value. When a certificate is produced from a renewable resource (as qualified by the appropriate state agency), it is called a REC.
- RECs are special because they can participate in voluntary or mandatory renewable energy markets
- **Electricity + REC = Renewable Energy**
 - **Electricity – REC ≠ Renewable Energy**

Review: REC Types



- There are many different types of RECs, which can be differentiated by:
 - Type of generation resource (e.g., solar, wind, hydro)
 - When resource was constructed
 - State/jurisdiction resource is located in, etc..
- Usually, RECs types are defined and RECs are “minted” at the state level according to respective laws & regulations
- Different types of RECs have different economic value and impact on renewable energy development
- Each REC has a unique identifier (serial number)

Massachusetts RPS REC Types



- Class 1 – “New”
 - Resources built post-1997
 - Solar PV, solar thermal, wind, small hydro, landfill methane, anaerobic digester gas, marine/hydrokinetic, geothermal, biomass fuel
 - Includes SREC 1 and SREC 2 (“Solar Carve-Outs”)
- Class 2 – “Existing”
 - Resources built pre-1998
 - Class 2 Renewables: essentially same types as Class 1
 - Class 2 Waste Energy: burn solid waste to produce energy
- Can be located in other states, but electricity must be deliverable to ISO-NE grid (except for SREC systems, which must be in MA)

Massachusetts APS



- APS = Alternative Energy Portfolio Standards
- Established by Green Communities Act
- Requires certain percentage of load to be met with non-renewable, alternative energy generation technologies
- Combined Heat and Power (CHP), flywheel storage, coal gasification, efficient steam technologies
- Obligation met with Alternative Energy Certificates (AECs), which is the APS version of a REC

MA RPS & APS Standards



- RPS Class 1: 2016 requirement is 11%, increases 1% per year
 - SREC 1: Set by formula designed to keep up with SREC-1 generation (2016 obligation is 1.7568%)
 - SREC 2: Set by formula designed to keep up with SREC-2 generation (2016 obligation is 0.7851%)
- RPS Class 2
 - Renewables: was originally set at static 3.6%, now set according to formula (2016 obligation is 2.5319%)
 - Waste Energy: set at static 3.5%
- APS: 2016 obligation is 4%, increases 0.25% per year

Other REC types



- Each state with mandatory or voluntary RPS requirements “mints” RECs to meet those requirements → there are lots of REC types
 - As of 2016, 29 states + D.C. have mandatory RPS requirements, 8 states have voluntary goals
<http://www.ncsl.org/research/energy/renewable-portfolio-standards.aspx>
- Anyone can purchase these RECs, but the resulting impact depends on the design of the RPS, market design and conditions, and type of REC purchased/retired
 - e.g., Texas has RPS, but goal has already been achieved and market is oversupplied → export cheap RECs to other states/markets that have no meaningful impact

Impact on renewable energy



- REC value is largely set by supply and demand
 - However, it is a managed market
- RPS/APS standards provide the basis for REC/AEC value by creating demand
- MA Class 1 RPS is designed to incentivize entrance of new renewable generation → increasing yearly obligation
- MA Class 2 RPS is designed to continue supporting existing resources → essentially static obligation
- RECs from other state markets will have impacts according to respective RPS/market design
- Note: Majority of RECs are bought through long-term contracts, which play an important role in renewable energy development (financing). A large amount of RECs are contracted for by EDCs, in compliance with statutory mandates.

RPS/REC Retail Pricing Impact

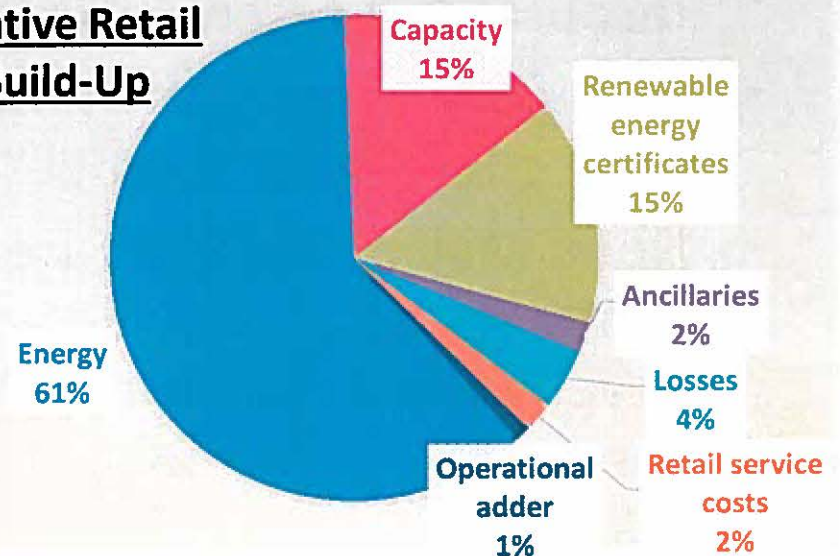


- In 2016, LSEs will be required to meet ~17% of retail load with RPS-qualified renewable resources, and an additional 4% with APS-qualified resources
- LSEs must build RECs/AECs in to retail prices
 - RPS/APS requirements and REC/AEC prices have material impact on retail pricing

Illustrative MA REC Pricing

Type	Vintage				
	2016	2017	2018	2019	2020
Class 1	\$38.00	\$40.00	\$42.00	\$42.00	\$42.00
SREC-1	\$435.00	\$330.00	\$295.00	\$290.00	\$280.00
SREC-2	\$280.00	\$285.00	\$295.00	\$250.00	\$205.00
Class 2 Waste	\$6.75	-	-	-	-
Class 2 Renewable	\$27.50	-	-	-	-
APS	\$20.75	-	-	-	-

Illustrative Retail Price Build-Up



Voluntary Green Programs



- Voluntary green programs give customers an option to financially contribute to renewable energy beyond RPS requirement
- Different models of voluntary green programs
- Generally, customer either pays a premium per kWh on their bill, or pays a separate fee
- Usually, premium/fee is used to purchase and retire RECs to meet all or a percentage of customer's load on a quarterly or yearly basis

Voluntary Green Programs



- Many people sign up for voluntary green programs because they want to encourage renewable energy development
 - However, the impact of the program is determined by the type(s) of RECs purchased
 - There are many suppliers who mislead customers about the value of their green programs
- For RPS-eligible RECs, retirement under voluntary programs makes less available for purchase by LSEs to meet RPS obligations
 - Demand set by RPS, so decreasing supply increases prices, sending economic signal for new renewable generation to come online
 - Due to market design, voluntary programs can play an important role in maintaining REC prices as market reaches saturation (or oversaturation)
- **The best way to incent new renewable generation is to retire MA Class 1 (or equivalent) RECs**

Example: CLC Green



- CLC Green: 50% and 100% options
 - Customers can elect to pay a premium for extra renewable energy (\$0.009/kWh for 50%, \$0.016/kWh for 100%) through CLC's suppliers
 - Suppliers send monthly green payments and load reports to CLC
- CLC acquires & retires RECs to meet either 50% or 100% of customers' load on a yearly basis
 - At least 25% of RECs purchased for 100% Green are Class 1
 - At least 30% of RECs purchased for 50% Green are Class 1
 - Remaining RECs are Low-Impact Hydro (ME Class 2)

Green Municipal Aggregation



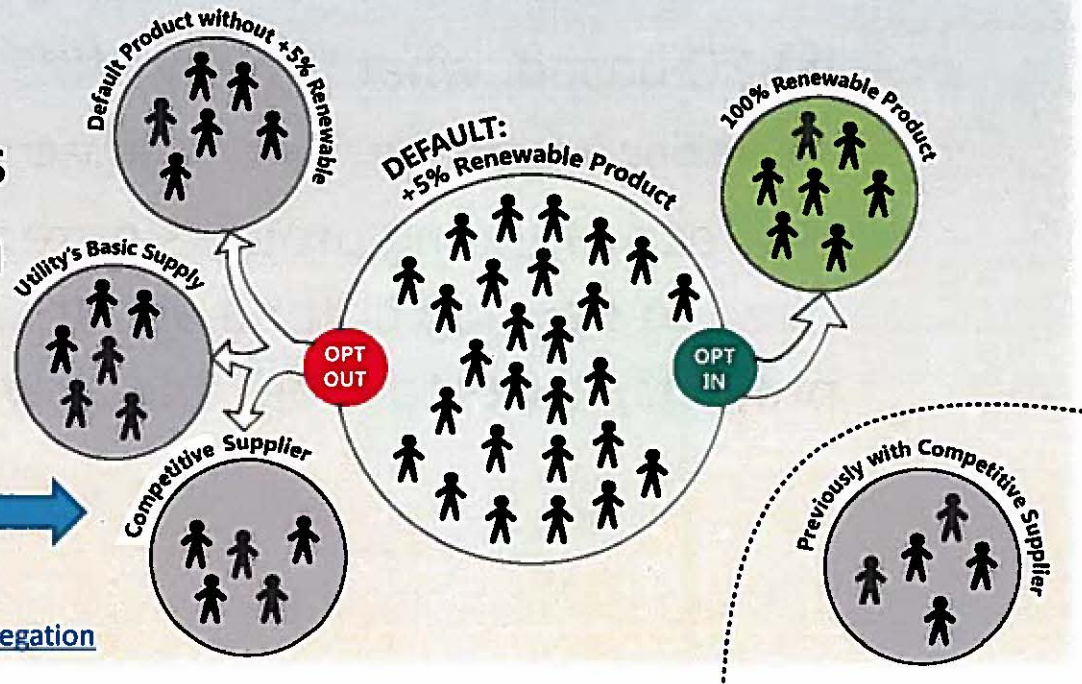
- Municipal aggregation presents a unique opportunity to support renewable energy
 - Ability to leverage aggregated purchasing power to acquire RECs above and beyond RPS requirements, significantly contributing to renewable energy expansion
- Other MA aggregators have “gone green,” several through Mass Energy
 - Town of Dedham and City of Melrose launched in Jan. 2016, at least seven other communities are planning green aggregations

Green Aggregation Design Options



- Aggregators have options for supporting renewable energy
 - REC-based: Have default product be greener than RPS
 - REC-based: Have an opt-in greener product
 - Non-REC-based: Directly fund renewable projects and/or organizations
 - Non-REC-based: Power purchase agreement (PPA) with renewable project(s) → but, must also purchase RECs to claim “green”
 - Any combination of above

- Melrose & Dedham model (through Mass Energy): combination of default greener product and opt-in 100% product



Green Aggregation Design Options



- Design elements that need to be considered:
 - Default, opt-in, or both?
 - If REC-based, which type(s) of RECs?
 - If desire is to expand local renewable energy, should be MA Class 1
 - If non-RPS and/or out-of-state, how are they accounted for?
 - If REC-based, what % above RPS or % of total load?
 - Taking into account pricing impacts – **must strike a balance**
 - If directly funding projects or renewable energy trusts, need to develop criteria about which types of projects/trusts to fund, and at what level

Key Takeaways:



- **Electricity + REC = Renewable Energy**
 - **Electricity – REC ≠ Renewable Energy**
- Not all RECs are created equal: some drive further renewable energy development, some don't
 - MA Class 1s (or equivalent) do
- RPS/RECs have significant impact on retail pricing
- Voluntary programs can support expansion of renewable energy, depending on design
- Aggregation presents a great opportunity to support renewable energy, but will impact pricing

Tune in for Part 3 ... (at the September board meeting)



- Supplier will present options for CLC to become a green aggregation, including pricing impacts
- Board and staff will discuss options and take necessary vote(s)



Questions and Discussion