Cape Light Compact JPE Executive Committee & Governing Board Meeting

DATE:

Wednesday, October 10, 2018

LOCATION:

Cape Light Compact Offices – MV Conference Room

261 Whites Path, Unit 4, South Yarmouth

TIME:

2:00 - 4:30 p.m.

AGENDA

2:00 PM

Public Comment

Approval of Minutes

Chairman's Report

1. November 1, 2018 Cape & Island Energy Committees Meeting

2019-2021 Energy Efficiency Plan, DPU 18-116

- Discussion and Potential Votes on Cape Light Compact Proposed Enhancements to the 2019-2021 Energy Efficiency Plan
- 2. Discussion and Potential Votes on Utilizing State Median Income versus Area Median Income for Customers in 61%-80% and 81%-120% Income Range
- 3. Discussion and Potential Vote on Proposed 2019-2021 Energy Efficiency Plan Budget and Savings Goals
- 4. Review Department of Public Utilities (DPU) Schedule

Administrator's Report

- 2. Fiscal Report: Overview of Energy Efficiency and Operating Budgets
- 3. Reminder 2019-2021 Energy Efficiency Plan Informational Sessions
- 4. November and December Board Meeting Dates and Agenda Topics

Board Member Update (Reserved for Updates on Member Activities the Chair Did Not Reasonably Anticipate Would be Discussed – No Voting)

Cape Light Compact JPE **Governing Board Open Session Meeting Minutes** Wednesday, September 19, 2018

The Cape Light Compact JPE Board of Directors met on Wednesday, September 19, 2018, in the Martha's Vineyard Conference Room at the Cape Light Compact JPE Offices at 261 Whites Path, Yarmouth, MA 02664 at 2:00PM.

Present Were:

- 1. David Anthony, Secretary, Barnstable
- 2. Peter Doyle, Barnstable Alternate
- 3. Robert Schofield, Executive Committee, Bourne
- 4. Colin Odell, Brewster
- 5. Peter Cocolis, Executive Committee, Chatham
- 6. Robert Hannemann, Chilmark Alternate By phone
- 7. Fred Fenlon, Eastham
- 8. Paul Pimentel, Edgartown
- 9. Ronald Zweig, Vice-Chair, Falmouth
- 10. Valerie Bell, Harwich
- 11. Wayne Taylor, Mashpee
- 12. Martin Culik, Orleans By phone
- 13. Thomas Donegan, Executive Committee, Provincetown
- 14. Leanne Drake, Sandwich
- 15. David Mead-Fox, Wellfleet Alternate
- 16. Sue Hruby, West Tisbury
- 17. Joyce Flynn, Chair, Yarmouth

Absent Were:

- 1. Michael Hebert, Aquinnah
- 2. Timothy Carroll, Chilmark
- 3. Brad Crowell, Dennis
- 4. Richard Toole, Executive Committee, Oak Bluffs
- 5. Jay Grande, Tisbury
- 6. Jarrod Cabral, Truro
- 7. Richard Elkin, Wellfleet

Members/Alternates Physically present: 15

Present by phone: 2

Legal Counsel:

JoAnn Bodemer, Esq., BCK Law, P.C.

Staff Present:

Austin Brandt, Senior Power Supply Planner Briana Kane, Planning and Evaluation Manager

Dan Schell, Marketing and Communications Coordinator Joanne Nelson, Comptroller Maggie Downey, Administrator Margaret Song, C&I Program Manager Melissa Allard, Senior Administrative Coordinator Phil Moffit, Residential Program Manager

Public Present:

None Present.

Joyce Flynn called the meeting to order at 2:04 PM. Joyce Flynn recognized Robert Hannemann of Chilmark and Martin Culik of Orleans who were remotely participating because physical attendance at the meeting would be unreasonably difficult.

PUBLIC COMMENT:

There were no members of the public present.

APPROVAL OF MINUTES:

The Board considered the July 11, 2018 Meeting Minutes. Phil Moffit stated that the missing word under 2019-2021 Energy Efficiency Plan, Cape Light Compact Enhancements is OPower.

Colin Odell moved the Board to accept the minutes as amended, seconded by Peter Cocolis.

David	Anthony	Barnstable	Yes
Robert	Schofield	Bourne	Abstained
Colin	Odell	Brewster	Yes
Peter	Cocolis	Chatham	Yes
Robert	Hannemann	Chilmark	Abstained
Fred	Fenlon	Eastham	Abstained
Paul	Pimentel	Edgartown	Yes
Ronald	Zweig	Falmouth	Yes
Valerie	Bell	Harwich	Yes
Wayne	Taylor	Mashpee	Yes
Martin	Culik	Orleans	Yes
Thomas	Donegan	Provincetown	Yes
Leanne	Drake	Sandwich	Yes
David	Mead-Fox	Wellfleet	Yes
Sue	Hruby	West Tisbury	Yes
Joyce	Flynn	Yarmouth	Yes

Motion carried in the affirmative (13-0-3)

CHAIRMAN'S REPORT:

Joyce Flynn reminded the Board to turn in their list of upcoming events that the Compact could participate in. The Board is to email them to Maggie Downey and copy Joyce Flynn.

FISCAL REPORT, PETER COCOLIS:

Peter Cocolis stated that there is no 2018 Energy Efficiency Budget update today because the Compact is working on the 2019-2021 Energy Efficiency Plan. Maggie Downey stated that she will email it to the Board once she receives it, or include in the October meeting.

Peter Cocolis reviewed the 2018 Operating Budget. Valerie Bell asked how the operating costs looks now compared to when we were a part of Barnstable County. Maggie Downey stated that as the JPE has now been in its new space for a year, she would compile the costs and share that information with the Board as part of the 2019 budget discussion at the November Board meeting. Fred Fenlon asked how many months this budget represents. Peter Cocolis stated that the budget represents 8 months of expenditures.

2018 ENERGY EFFICIENCY PROGRAM:

1. VOTE TO APPROVE \$541,000 FOR BOURNE PUBLIC SCHOOLS

Margaret Song stated that the Town of Bourne has been reviewing options for their schools. They decided to install an Energy Management Systems (EMS) on the heat pumps. Fred Fenlon asked if all the money was going towards energy efficiency. Margaret answered yes. Sue Hruby asked if Bourne is a Green Community. Margaret Song answered no. Sue Hruby asked why they weren't. Bob Schofield stated that a lot of that has to do with building codes. Those codes are changing though, and he has asked the Town Administrator to open this topic again. With Margaret Song's help, he hopes Bourne can become a Green Community. Paul Pimentel stated that EMS requires a lot of maintenance and asked what the Compact is doing to make sure that the EMS are being maintained correctly. Margaret Song stated that training will be done once the system is in place. Paul Pimentel stated that EMS go out of date and asked if there is money to keep them updated. Margaret Song stated that the recent protocols that the Compact installed EMS has is open sourced to make sure we are keeping up with the changes in energy efficiency. Paul Pimentel asked if there was room in the budget for this project. Margaret Song answered yes. Sue Hruby stated that this is a good project and the Compact has the money but should try to encourage them to become Green Community. Colin Odell stated that many towns are participating in the Energy Efficiency program. Pressuring towns to become a Green Community could cause problems. David Anthony stated that there are some measures in here that are less economical paired with more economical packaged together to leverage that into stronger system. Valerie Bell stated that many towns are on their way to becoming a Green Community.

David Anthony moves the Board vote to approve an incentive of up to \$541,000 for the Bourne Public Schools. 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 Bob Schofield.

David	Anthony	Barnstable	Yes	
Robert	Schofield	Bourne	Yes	
Colin	Odell	Brewster	Yes	
Peter	Cocolis	Chatham	Yes	
Robert	Hannemann	Chilmark	Yes	

Fred	Fenlon	Eastham	Abstained
Paul	Pimentel	Edgartown	Yes
Ronald	Zweig	Falmouth	Yes
Valerie	Bell	Harwich	Yes
Wayne	Taylor	Mashpee	Yes
Martin	Culik	Orleans	Yes
Thomas	Donegan	Provincetown	Yes
Leanne	Drake	Sandwich	Yes
David	Mead-Fox	Wellfleet	Yes
Sue	Hruby	West Tisbury	Yes
Joyce	Flynn	Yarmouth	Yes

Motion carried in the affirmative (15-0-1)

2. VOTE TO APPROVE \$253,550 FOR FALMOUTH HIGH SCHOOL

Margaret Song stated that there will be lighting upgrades throughout the Falmouth High School. Joyce Flynn asked if the incentive dollars for lighting were coming to end in the next Energy Efficiency Plan. Margaret Song answered that the most generous phase of cost effective incentives is coming to an end.

Tom Donegan moved the Board vote to approve an incentive of up to \$253,550 for the Falmouth High School. 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 Colin Odell.

David	Anthony	Barnstable	Yes
Robert	Schofield	Bourne	Yes
Colin	Odell	Brewster	Yes
Peter	Cocolis	Chatham	Yes
Robert	Hannemann	Chilmark	Yes
Fred	Fenlon	Eastham	Abstained
Paul	Pimentel	Edgartown	Yes
Ronald	Zweig	Falmouth	Yes
Valerie	Bell	Harwich	Yes
Wayne	Taylor	Mashpee	Yes
Martin	Culik	Orleans	Yes
Thomas	Donegan	Provincetown	Yes
Leanne	Drake	Sandwich	Yes
David	Mead-Fox	Wellfleet	Yes
Sue	Hruby	West Tisbury	Yes
Joyce	Flynn	Yarmouth	Yes

Motion carried in the affirmative (15-0-1)

3. VOTE TO APPROVE \$161,133 FOR THE HARWICH FIRE STATION, POLICE STATION, TOWN HALL AND COMMUNITY CENTER

Margaret Song stated that Demand Control Ventilation (DCV) will be installed that would connect to all these buildings. That DCV will be controlling ventilation related equipment that are not at this moment controlled. EMS will be installed or upgraded in several of the buildings. National Grid is giving some incentives since it is gas project. Ron Zweig asked where the rest of the money for the project was coming from. Margaret Song answered that the town is contributing to cost.

Bob Schofield moved the Board vote to approve an incentive of up to \$161,133 for the Harwich Fire Station, Police Station, Town Hall and Community Center. 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 Colin Odell.

David	Anthony	Barnstable	Yes
Robert	Schofield	Bourne	Yes
Colin	Odell	Brewster	Yes
Peter	Cocolis	Chatham	Yes
Robert	Hannemann	Chilmark	Yes
Fred	Fenlon	Eastham	Abstained
Paul	Pimentel	Edgartown	Yes
Ronald	Zweig	Falmouth	Yes
Valerie	Bell	Harwich	Yes
Wayne	Taylor	Mashpee	Yes
Martin	Culik	Orleans	Yes
Thomas	Donegan	Provincetown	Yes
Leanne	Drake	Sandwich	Yes
David	Mead-Fox	Wellfleet	Yes
Sue	Hruby	West Tisbury	Yes
Joyce	Flynn	Yarmouth	Yes

Motion carried in the affirmative (15-0-1)

<u>DISCUSSION ON PROPOSED CAPE & VINEYARD ELECTRIFICATION DEMONSTRATION OFFERING, 2019-2021</u> <u>ENERGY EFFICIENCY PLAN:</u>

Maggie Downey reviewed the Proposed 2019- 2021 Cape & Vineyard Electrification Demonstration Offering PowerPoint. The Proposed Cape and Vineyard Electrification Demonstration will recruit 700 non-gas heated customers, who heat their homes with oil, propane, and/or electric resistance heat and convert/install cold climate heat pumps, paired with PV/Solar installation to support electrification of heating system, and install battery storage for demand response and resiliency. Incentives for the 700 customers will be tiered based on their income.

Tom Donegan asked if the Compact would be using the numbers provided in the PowerPoint for residential income verification instead of the Barnstable County income numbers. Maggie Downey answered yes.. Tom Donegan asked that the Compact research whether or not it could use area (Barnstable and Dukes County) income levels instead of the state levels. Maggie Downey noted she would research and bring back to the Board at their October meeting. David Anthony stated that if participants can use the heat loan for the PV system and install, they can use the money they save on utility bills to put towards the loan. Maggie Downey

stated that the Compact is proposing to do so for the extended moderate income participants. However, low-income participants will receive 100%. The Low-Income Energy Advocacy Network (LEAN) believes it is best to not encourage debt for this group because too many of these people are working paycheck to paycheck. Ron Zweig asked what the projection of battery prices looks like. Austin Brandt stated that the prices are predicted to decrease. Maggie Downey stated that the Compact prefers the Tesla battery.

2019-2021 ENERGY EFFICIENCY PLAN, CAPE LIGHT COMPACT ENHANCEMENTS:

Briana Kane opened the "Building on Success: Update on Cape Light Compact's 2019-2021 Three-Year Energy Efficiency Plan" PowerPoint talking about the history of the 3-Year Energy Efficiency Plan and the upcoming final draft that is to be submitted on October 10, 2018. Maggie Downey recapped the current direction of the Board for Energy Efficiency Programs.

Phil Moffit reviewed the "Residential Behavior & Demand Management Offering" slide on OPower. Paul Pimentel asked if the benefits from OPower come from measured savings or estimated savings. Briana Kane answered that the benefits are an estimated value. Paul Pimentel stated that he has had a difficult time getting people to participate in behavioral programs in the past. Therefore, he doesn't have much faith in OPower being successful. Maggie Downey stated that the Compact does get to claim savings through this program. Colin Odell asked if the Compact decides not to participate in OPower, what is going to be available for the loss of savings? Briana Kane stated that deciding not to participate in OPower will not make or break the program. Colin Odell stated that with the incentives for lighting decreasing it is harder to get residential savings. Tom Donegan asked if the Compact does not participate in OPower would that weaken our response to the DPU. Maggie Downey stated that it would not impact our response. Sue Hruby asked what customers will be receiving in the mail from OPower. Will the letter tell the customers what they used compared to their neighbors? Briana Kane stated that the letter will be comparing the customers usage to similar and blended households. Tom Donegan stated that there are too many seasonal homes on Cape Cod. Phil Moffit stated that the Compact can time when the reports go out. Maggie Downey stated that OPower would also be a marketing piece. The letter would have the Cape Light Compact logo and general information about the Compact's programs on it. Maggie Downey then asked what the sense of the Board was on pursuing OPower. The sense of the board is to not pursue OPower as a measure. Tom Donegan stated that if the Compact does get push back about not participating in OPower then it should be brought back to the Board.

Wayne Taylor left meeting at 4:15pm.

Austin Brand reviewed the Bill Impacts slide and stated that OPower was not included in the September 14th 2019-2021 Energy Efficiency Plan draft filing. Briana Kane reviewed where the Compact is at currently and stated that the total three-year budget is at a 20% increase over the Compact's 2016-2018 Energy Efficiency Plan. Austin Brandt quickly reviewed the Cape & Vineyard Electrification slide as it had been covered in the previous PowerPoint. Valerie Bell asked what the Compact is expecting to learn from the 700 participants. Maggie Downey stated that the Compact wants to learn by implementing this program on a small scale how to expand it. The Compact wants to help make operating homes and businesses affordable so that people aren't struggling to stay on the Cape and Vineyard. Sue Hruby stated that it depends on what happens after and asked how the Compact is planning to expand the program in a way that is cost managed for the Compact and its customers. Austin Brandt stated that the Compact can plan the cost and budget. Briana Kane reminded the Board that in December the Compact does True-Up with what the Compact has spent in the Energy Efficiency Budget. Maggie Downey stated that if the Compact is not spending the money the amount will change the next year. Valerie Bell stated that the cost for a Solar/PV is around \$24,000 and asked what the Compact is offering

to help cover the cost. Maggie Downey stated that there would be a \$1,000 incentive (excluding low-income customers) and that the Compact is proposing that the heat loan would fund the rest of the cost.

Maggie Downey had reviewed the Next Steps for CLC Board on the previous PowerPoint, Colin Odell asked about the threshold for participation in the Cape and Vineyard Electrification program and stated that the 700 participants should have12-months heating and cooling. Maggie Downey agrees that the participants must be year-round residents. David Anthony asked if the Compact was helping customers with the cost of removing existing heating systems. Maggie Downey stated that the Compact doesn't currently have any incentives to help with the removal of previous systems. David Anthony stated that National Grid does offer incentives for removal when converting from oil to natural gas, but this program is different. Maggie Downey stated that the Compact will look into the removal of previous systems being covered by the heat loan. Maggie Downey then asked the Board if they were comfortable with the number of participants. Colin Odell believes the 700 participants split up by different incomes should show the Compact good results. David Anthony questioned whether the four groups of people are all being offered the same thing. Maggie Downey stated that each group will be receiving the same thing but is being offered different levels of incentives depending upon their annual income. Sue Hruby asked what would happen if the Compact were to reduce other programs to do this one. Maggie Downey answered that the Compact can't do that because it is bringing in other savings. David Mead-Fox stated that it doesn't seem worth it to reduce the number of participants. Peter Cocolis stated that many of the residents in Chatham are natural gas customers therefor they are unable to participate in this demonstration offering. Maggie Downey stated that it is a statewide goal to help all customers. Maggie Downey stated that if the Compact does not receive grant funds then the customer costs will increase and have to be included in a heat loan. If there are no grant funds, the sense of the Board is to provide the same level of incentives for both moderate-income and low-income participants. David Anthony asked if the 700 participants would have had a Home Energy assessment. Maggie Downey answered yes and stated that all measures recommended would have to have been completed. The sense of the Board is to stay at 700 participants.

ADMINISTRATORS REPORT:

Maggie Downey stated that the Compact is assisting the Towns and municipal entities in their power supply bid. The Request for Proposals (RFP) is going out soon and that Austin Brandt is the lead staff member working on it. She stated if a Board member wants to participate on the bid opening to let her know. Maggie Downey mentioned that there is a potential Cape and Vineyard Wide Energy Committee Meeting in early November that Liz Argo, from CVEC, will be sending out that information.

Robert Hannemann and Martin Culik stopped participation by phone at 4:42pm.

ADJOURNMENT:

Motion to adjourn made at 4:45PM moved by Ron Zweig, seconded by Tom Donegan.

Respectfully submitted,

Melissa Allard

LIST OF DOCUMENTS AND EXHIBITS:

- Meeting Notice / Agenda
- July 11, 2018 Meeting Minutes
- 2018 Operating Budget

- Agenda Action Request: Proposed Incentive for Bourne Public Schools Project
- Agenda Action Request: Proposed Incentive for Falmouth Public Schools Project
- Agenda Action Request: Proposed Incentive for Harwich Town Buildings Project
- Proposed 2019-2021 Cape & Vineyard Electrification Demonstration Offering PowerPoint
- Building on Success: Update on Cape Light Compact's 2019-2021 Three-Year Energy Efficiency Plan PowerPoint

Agenda Action Request Cape Light Compact Meeting Date: 10/10/18



Aquinnah

Barnstable

Bourne

Brewster

Chatham

Chilmark

Dennis

Dukes

County Eastham

Edgartown

Falmouth

Harwich

Maslipee

Oak Bluffs

Orleans

Provincetown

Sandwich

Tisbury

Truro

Wellfleet

West Tisbury

Yarmouth

2019-2021 Energy Efficiency Plan Compact Specific Enhancements

REQUESTED BY: Maggie Downey

Proposed Motion(s)

I move the CLCJPE Board of Directors vote to include the attached Compact energy efficiency program enhancements in the 2019-2021 Energy Efficiency Plan to be submitted to the Massachusetts Department of Public Utilities on October 31, 2018.

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

Consistent with Massachusetts General Law, Chapter 164, Section 134, the Compact Board directed staff to continue to offer more robust energy efficiency services than the utility Program Administrators.

Record of Board Action

Motion by:	Second by:	# Aye	# Nay	# Abstain	Disposition
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Cape Light Compact 2019-2021 Energy Efficiency Plan (Plan)

Summary of Proposed Plan Cape Light Compact Enhancements

Residential

- Continue with cost effective no cap insulation offering for residential customers
- Continue to serve all electric customers who contact the Compact regardless of how they heat their homes
- Continue offering 100% insulation incentives to our renter and moderate-income customers
- Continue to explore ways to serve our hard-to-reach customers
- Battery Storage and Active Demand Response
- Behavior Offering Home Energy Report Opower
- Residential Strategic Electrification Offering
 - 700 residential customers: convert oil, propane and electric resistance heat to cold climate heat pumps
 - Install PV systems to support electrification of heating systems
 - Install battery storage for demand response
 - Tiered incentives based on income

Commercial & Industrial

- Municipal up to 100% cost effective incentives
- Eligible Non-profits 100% cost effective incentives
- Year-round tenants 100% cost effective incentives
- Serve Oil, propane, other fuel customers
- Continue to Offer "Main Streets"

Agenda Action Request Cape Light Compact Meeting Date: 10/10/18



Aquinnah

Barnstable

Bourne

Brewster

Chatham

Chilmark.

Dennis

Dukes County

Eastham

Edgartown

Falmouth

Harwich

Mashpee

Oak Bluffs

Orleans

Provincetown

Sandwich

Tisbury

Truro

Wellfleet

West Tisbury

Yarmouth

2019-2021 Energy Efficiency Plan: Income Eligible Programs

REQUESTED BY: Maggie Downey

Proposed Motion(s)

I move the Board vote to approve the use of Area Median Incomes for determining whether a customer is eligible for Cape Light Compact moderate (61%-80% AMI) or extended moderate (81% - 120% AMI) income offerings.

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

See attached for additional information.

Record of Board Action

Motion by:	Second by:	# Aye	# Nay	# Abstain	Disposition
			!		
		-	[

Residential

Income Verification Offerings



\$50,351 -	\$57,551-	\$64,751-	\$71,901 -
\$100,700	\$115,100		\$143,800
\$48,301 -	\$55,201-\$110,400	\$62,101 – \$124,200	\$68,951 – 137,900
\$47,551 -	\$61,916 -	\$76,485 -	\$91,053 -
	\$89,916	\$111,074	\$132,230
\$38,941 -	\$44,521 -	\$50,101 -	\$55,621 -
\$50,350	\$57,550		\$71,900
\$36,241 -	\$41,401 -	\$46,561 -	\$51,721-
\$48,300	\$55,200		\$68,950
\$35,511-	\$46,438 -	\$57,364 -	\$68,290 -
	\$61,915	\$76,484	\$91,052
Up to	Up to	Up to	Up to
\$38,940	\$44,520	\$50,100	\$55,620
Up to	Up to	Up to	Up to
\$36,240	\$41,400	\$46,560	\$51,720
Up to	Up to	Up to	Up to
\$35,510	\$46,437	\$57,363	\$68,289
1	2	8	4
	Up to Up to \$35,511- \$36,241- \$38,941- \$47,551- \$48,301- \$36,240 \$38,940 \$47,550 \$48,300 \$50,350 \$68,760 \$96,600	Up to Up to \$35,511- \$36,241- \$38,941- \$47,551- \$48,301- \$96,600 \$96,000 \$91,000 to Up to Up to Up to Up to \$46,438- \$41,401- \$44,520 \$89,916 \$110,400	Up to Up to Up to \$35,511- \$36,241- \$38,941- \$47,551- \$48,301- \$96,600 \$95,510- \$46,437 \$41,400 Up to Up to Up to \$46,438- \$41,401- \$44,521- \$61,916- \$55,201- \$46,437 \$41,400 Up to S57,364- \$46,561- \$56,100- \$56,101- \$76,485- \$62,100 \$546,750 \$111,074 \$124,200

Based on U.S. Department of Housing and Urban Development (HUD) income limits for 2018.

Agenda Action Request Cape Light Compact Meeting Date: 10/10/18



Aquinnah

Barnstable

Bourne

Brewster

Chatham

Chilmark

Dennis

Dukes

County

Eastham

Edgartown

Falmouth

Harwich

Mashpee

Oak Bluffs

Orleans

Provincetown

Sandwich

Tisbury

Truro

Wellfleet

West Tisbury

Yarmouth

2019-2021 Energy Efficiency Plan Budget and Savings Goals

REQUESTED BY: Maggie Downey

Proposed Motion(s)

I move the Board vote to approve the proposed goals and budgets presented by staff for the 2019-2021 Energy Efficiency Plan and authorize submission of the proposed Plan to the Massachusetts Department of Public Utilities.

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.

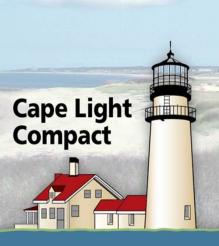
Additional Information

See presentation for additional information.

Record of Board Action

Motion by:	Second by:	# Aye	# Nay	# Abstain	Disposition
ì					
		1			

October update on the Compact's 2019-2021 Three-Year Energy Efficiency Plan



Background on Three-Year Energy Efficiency Plan



- 2008 Massachusetts Green Communities Act (GCA) mandates "electric and natural gas resource needs shall first be met through all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply."
- 2018 Amendments to the GCA:
 - Explicitly allows for cost effective energy storage and other active demand management technologies
 - Adds cost-effective strategic electrification
 - Explicitly authorizes renewable funding through EE funds
 - Changes cost-effectiveness requirement from program level to sector level (increases flexibility)
- Statewide Term Sheet: Department of Energy Resources and the Attorney General indicate Program Administrators' 2019-2021 Energy Efficiency Plans should comply with amendments (Active Demand Response, Storage, Electrification Goals Required)
- Compact works collaboratively with seven other statewide PAs to provide cost-effective energy efficiency programs. These programs are most commonly known as Mass Save®.

CLC Enhancements

Residential

- Continue with cost effective no cap insulation offer for residential customers
- Continue to serve all electric customers who contact the Compact regardless of how they heat their homes
- Continue offering 100% insulation incentives to our renter and moderate income customers
- Continue to explore ways to serve our hard-toreach customers
- **Battery Storage and Active Demand Response**
- Behavior Offering Home Energy Report Opower
- Strategic Electrification Offering
 - 700 total residential customers: convert oil, propane, electric resistance heat to cold climate heat pumps
 - Install PV systems to support electrification of heating system
 - Install battery storage for demand response
 - Tiered incentives based on income





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Commercial & Industrial

- Municipal up to 100% cost effective incentives
- Eligible Non-profits 100% cost effective incentives
- Year-round tenants 100% cost effective incentives
- Serve Oil, propane, other fuel customers
- Continue to Offer "Main Streets"

Cape Light **Compact**

Vote on CLC proposed enhancements



- 2019 2021 Energy Efficiency Plan Compact Specific Enhancements
 - I move the CLC JPE Board of Directors vote to include the attached Compact energy efficiency program enhancements in the 2019 – 2021 Energy Efficiency Plan to be submitted to the Massachusetts Department of Public Utilities on October 31, 2018.

Residential Income Verification Offerings



Household Members	60% State Median Income (SMI)	60% Barnstable County Area Median Income (AMI)	60% Dukes County AMI	61 – 80% SMI	61-80% Barnstable County AMI	61-80% Dukes County AMI	81 – 120% SMI	81-120% Barnstable County AMI	81-120% Dukes County AMI
1	Up to	Up to	Up to	\$35,511 -	\$36,241 -	\$38,941 -	\$47,551 -	\$48,301 -	\$50,351 -
	\$35,510	\$36,240	\$38,940	\$47,550	\$48,300	\$50,350	\$68,760	\$72,480	\$77,880
2	Up to	Up to	Up to	\$46,438 -	\$41,401 -	\$44,521 -	\$61,916 -	\$55,201 -	\$57,551 –
	\$46,437	\$41,400	\$44,520	\$61,915	\$55,200	\$57,550	\$89,916	\$82,800	\$89,040
3	Up to	Up to	Up to	\$57,364 -	\$46,561 -	\$50,101 -	\$76,485 -	\$62,101 –	\$64,751 -
	\$57,363	\$46,560	\$50,100	\$76,484	\$62,100	\$64,750	\$111,074	\$93,120	\$100,200
4	Up to	Up to	Up to	\$68,290 -	\$51,721 –	\$55,621 -	\$91,053 -	\$68,951 –	\$71,901 -
	\$68,289	\$51,720	\$55,620	\$91,052	\$68,950	\$71,900	\$132,230	103,440	\$111,240

Based on U.S. Department of Housing and Urban Development (HUD) income limits for 2018.

Vote on Income Eligible Program levels



- 2019 2021 Energy Efficiency Plan Income Eligible Programs
 - I move the CLC JPE Board of Directors vote to approve the use of Area Median Incomes for determining whether a customer is eligible for Cape Light Compact moderate (61% - 80% AMI) or extended moderate (81% - 120% AMI) income offerings.

2019 – 2021 Budget



Total Budget (all sectors) October with a Benefit Cost Ratio of 2.21					
2019 2020 2021 2019 - 2021					
\$47,212,059	\$58,194,204	\$61,392,479	\$166,798,742		

2019 – 2021 Electric Savings



Net Savings (all sectors) October						
	2019	2020	2021	2019 - 2021		
Annual (MWh)	40,687	40,320	37,546	118,554		
Lifetime (MWh)	335,288	349,480	354,465	1,039,233		





2019 – 2021 Bill Impacts



Residential (R-1)

Years	EERF		Energy Conservation		Avg. Monthly Usage (kWh)		Total Cost (per month)
2018	\$0.01859	+	\$0.00250	х	516	=	\$10.88
2019-2021	\$0.02797	+		Х		=	\$15.72
Total Cost di	fference						\$4.84

Low Income (R-2)

Years	EERF		Energy Conservation		Avg. Monthly Usage (kWh)		Total Cost (per month)
2018	\$0.00148	+	\$0.00250	Х	488	=	\$1.94
2019-2021	\$0.00336	+		Х		=	\$2.86
Total Cost d	ifference						\$0.92

<u>C&I Small General Service (G-1)</u>

Years	EERF		Energy Conservation		Avg. Monthly Usage (kWh)		Total Cost (per month)	Avg. Monthly Usage (kWh)		Total Cost (per month)
2018	\$0.00530	+	\$0.00250	Х	400	=	\$3.12	10,800	=	\$84.24
2019-2021	\$0.01502	+		Х		=	\$7.01		=	\$189.22
Total Cost di	fference						\$3.89			\$104.98

Vote on Budget and Savings



- 2019 2021 Energy Efficiency Plan Budget and Savings Goals
 - I move the CLC JPE Board of Directors vote to approve the proposed goals and budgets presented by staff for the 2019 – 2021 Energy Efficiency Plan and authorize submissions of the proposed Plan to the Massachusetts Department of Public Utilities.







The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

MEMORANDUM

TO: Energy Efficiency Program Administrators - 2019-2021 Three-Year Energy

Efficiency Plans

FROM: Jeffrey Leupold, Sarah Smegal, Krista Hawley, and Jessica Ellis Hearing

Officers

RE: Procedural Memorandum - 2019-2021 Three-Year Energy Efficiency Plans

DATE: October 3, 2018

CC: Mark D. Marini, Secretary

Energy Efficiency Email Distribution List

I. INTRODUCTION

General Laws c. 25, § 21(d)(1) requires the Massachusetts energy efficiency program administrators ("Program Administrators") to file with the Department of Public Utilities ("Department") their respective Three-Year Energy Efficiency Plans for the 2019-2021 term ("Plans") on or before October 31, 2018. Within 90 days after the filing, the Department must issue a decision on the Plans. G.L. c. 25, § 21(d)(2). To accommodate the 90-day review period, the Department established a filing template, a model procedural schedule, and procedures for the review of the Plans. Investigation by the Department of Public Utilities on its own Motion into Updating its Energy Efficiency Guidelines Consistent with An Act Relative to Green Communities, D.P.U. 08-50-B (2009); Energy Efficiency Guidelines, D.P.U. 11-120-A Phase II (2013) ("Guidelines").

Based on its experience in reviewing prior three-year energy efficiency plan filings, the Department has identified additional information that the Program Administrators must include in their respective Plan filings. The additional filing requirements are set forth below. In addition, this memorandum provides filing procedures, assigns docket numbers, and sets forth the initial schedule for the investigation of these filings.

II. ADDITIONAL FILING REQUIREMENTS

In addition to all materials included in the Plan filing template, ¹ each Program Administrator shall provide the following information with its Plan filing:

- 1. Provide pre-filed testimony describing the development and determination of the proposed statewide and Program Administrator-specific savings goals, including for each customer sector. Explain how technical potential studies and other sources were used in this regard. Provide copies of all technical potential studies and other sources that were used.
- 2. Provide pre-filed testimony describing how the Program Administrator intends to address the following:
 - a. participation barriers and achievement of deeper participant savings for renters in the residential energy efficiency core initiatives and programs;
 - b. participation barriers and achievement of deeper participant savings in hard-to-reach/underserved communities in the residential and low-income energy efficiency core initiatives and programs;
 - c. participation barriers and achievement of deeper participant savings in C&I energy efficiency program channels (e.g., municipal, healthcare, real estate, education, non-profit, hospitality, and small and mid-sized C&I);
 - d. saturation between new and repeat participants in core initiatives;
 - e. historical close rates and how each Program Administrator developed its current assumptions for its planned close rates; and
 - f. programs or core initiatives related to demand response including, but not limited to, winter electric or gas demand response offerings.

Program Administrators shall continue to provide D.P.U. 08-50 tables and information at the core initiative level. However, Program Administrators are not required to file statewide comparison tables or related information as required by Guidelines §§ 3.2.1.7, 3.2.2.4, 3.3.5, 3.3.7, or 3.4.4.3.

- 3. Provide pre-filed testimony describing how the Program Administrator intends to engage outside organizations (e.g., municipalities, municipal energy advocates, community organizations, etc.) to enhance program delivery during the 2019-2021 term.
- 4. Provide pre-filed testimony describing how each Program Administrator is incorporating strategic electrification into its Plan or how each Program Administrator intends to incorporate strategic electrification going forward.
- 5. Provide pre-filed testimony identifying and describing new technologies and initiatives that the Program Administrator has included in its Plan. Explain how the Program Administrator evaluated new technologies and initiatives to determine cost-effectiveness and savings potential.
- 6. Provide pre-filed testimony describing all new non-energy impacts that the Program Administrators anticipate studying during the 2019-2021 term.
- 7. Provide pre-filed testimony describing all new or additional benefits that were captured in the most recent Avoided Energy Supply Cost Study and how each Program Administrator has incorporated these benefits in its Plan. If the Program Administrator has not incorporated these benefits, explain why not.
- 8. Provide pre-filed testimony identifying all competitively procured contracts that the Program Administrator has already executed for services to be provided during the 2019-2021 term. For each contract, identify: (a) the contract term; (b) whether there is an option to extend the term; and (c) the conditions for renewal. For each Program Administrator, provide the percentage and total dollar amount of competitively procured services that have already been procured for the 2019-2021 term.
- 9. (Electric only) Provide pre-filed testimony describing the process by which the Program Administrator develops bids for the forward capacity market administered by ISO New England, Inc. including a discussion of how energy storage technologies will be incorporated into such bids.
- 10. To facilitate the publication of the notice, provide the following Program Administrator specific information in the cover letter to the filing, including a citation to where the underlying support for such information appears in the filing:
 - a. proposed total budget for the three-year term and annual budget for 2019, 2020, and 2021; and

- b. summary bill impacts in the following format:
 - A residential customer ([insert applicable rate class]) using [insert applicable quantity and units] per month could experience a monthly bill increase/decrease of \$X.XX or X.X percent in 2019; a monthly bill increase/decrease of \$X.XX or X.X percent in 2020; and a monthly bill increase/decrease of \$X.XX or X.X percent in 2021.
 - A low-income customer ([insert applicable rate class]) using [insert applicable quantity and units] per month could experience a monthly bill increase/decrease of \$X.XX or X.X percent in 2019; a monthly bill increase/decrease of \$X.XX or X.X percent in 2020; and a monthly bill increase/decrease of \$X.XX or X.X percent in 2021.

III. FILING PROCEDURES

Each Program Administrator shall file its Plan in the following manner:

- The original of each individual Plan and common Statewide Plan (including bulk appendixes and exhibits) should be delivered to the Department's Secretary, Mark D. Marini.
- 2. Electronic copies of each individual Plan and common Statewide Plan should be directed to the Department's e-filing address <u>DPU.efiling@mass.gov</u>.
- 3. Electronic copies (email and CD/USB drive) of each Program
 Administrator-specific Plan should be directed to the Hearing Officers as
 identified in § IV, below. In addition, an electronic copy (email and CD/USB
 drive) of the common Statewide Plan should be directed to each Hearing
 Officer identified in § IV, below. For CD/USB drive copies, each Program
 Administrator must file one (or more if necessary) clearly identified CD/USB
 drive containing the common Statewide Plan filing material and one (or more
 if necessary) clearly identified CD/USB drive containing the Program
 Administrator-specific filing materials.
- 4. Paper copies of the Plans should be delivered to Jeffrey Leupold, as follows:

- five copies total (not per Program Administrator) of the common Statewide Plan, excluding common bulk exhibits;
- one copy total (not per Program Administrator) of each common bulk appendix; and
- two copies per Program Administrator of all other Program Administrator-specific Plan components.

All copies must be in three-ring loose leaf binders with each binder clearly identified as to content and, where appropriate, docket number and Program Administrator.

- 6. Prior to filing its Plan with the Department, a Program Administrator shall notify all the individuals/entities included on the attached email distribution list, which includes Energy Efficiency Advisory Council ("Council") members and intervenors and limited participants in the 2016-2018 energy efficiency plan proceedings (i.e., D.P.U. 15-160 through D.P.U. 15-169), of the upcoming filing and direct these individuals/entities to contact the Program Administrator if they want to receive an electronic copy of the Plan. The Program Administrator shall, upon such request, promptly provide such electronic copy.
- 7. On the date its Plan is filed with the Department, a Program Administrator must provide a copy of its Plan to each member of the Council unless the Council member agrees in advance to an electronic copy.
- 8. Program Administrators must include all formulas, linkages and pivot tables in the D.P.U. 08-50 tables. Where the inclusion of a particular item is overly burdensome or impractical, active cells should include a note or comment explaining how the value was calculated, with references to applicable page(s) in the Technical Reference Manual/Library.
- 9. All documents must be searchable. Program Administrators must file each exhibit as a separate PDF file. In addition, the entire set of exhibits should be submitted as single PDF file (or, where too large, as few separate PDF files as possible). In each instance, the electronic file name should identify the document but should not exceed 50 characters in length.

IV. PRE-ASSIGNED DOCKET NUMBERS

The Department has pre-assigned docket numbers to the Plans as follows:

Gas Program Administrators:

D.P.U. 18-110 - Bay State Gas Company, d/b/a Columbia Gas of Massachusetts

(Krista Hawley, krista.hawley@mass.gov)

D.P.U. 18-111 - The Berkshire Gas Company

(Krista Hawley, krista.hawley@mass.gov)

D.P.U. 18-112 - Fitchburg Gas and Electric Light Company, d/b/a Unitil (Gas)

(Jeffrey Leupold, jeffrey.leupold@mass.gov)

D.P.U. 18-113 - Liberty Utilities (New England Natural Gas Company) Corp., d/b/a Liberty Utilities

(Jeffrey Leupold, jeffrey.leupold@mass.gov)

D.P.U. 18-114 - Boston Gas Company and Colonial Gas Company, each d/b/a National Grid (Sarah Smegal, sarah.smegal@mass.gov)

D.P.U. 18-115 - NSTAR Gas Company, d/b/a Eversource Energy (Jessica Ellis, jessica.ellis@mass.gov)

Electric Program Administrators:

D.P.U. 18-116 - Cape Light Compact JPE

(Sarah Smegal, sarah.smegal@mass.gov)

D.P.U. 18-117 - Fitchburg Gas and Electric Light Company, d/b/a Unitil (Electric) (Jeffrey Leupold, jeffrey.leupold@mass.gov)

D.P.U. 18-118 - Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid

(Sarah Smegal, sarah.smegal@mass.gov)

D.P.U. 18-119 - NSTAR Electric Company d/b/a Eversource Energy (Jessica Ellis, jessica.ellis@mass.gov)

V. PROCEDURAL SCHEDULES

Pursuant to 220 CMR 1.06(6)(b)(1) the Department will establish schedules for the investigation of the Plan proceedings.² Before the establishment of final schedules and

To enable review the Plans in the context of the 90-day period provided by G.L. c. 25, § 21(d)(2), the Department has established two procedural tracks. Guidelines § 3.7.2. In order to better describe the parties subject to each track, the Department

consistent with the model procedural schedule in Guidelines § 3.7.3 and Guidelines § 3.7.1, the following dates shall be observed:

Plans filed with the Department	October 31, 2018
Petitions to intervene (General Track) due	November 1, 2018
Discovery (General Track) commences ³	November 1, 2018
Answers to (General Track) petitions to intervene due	November 5, 2018
Pre-hearing statements (General Track) due	November 7, 2018

will refer to them as "General Track" (previously Council track) and "Alternate Track" (previously "Non-Council Track").

A General Track participant is a participant in the Council process or an entity whose interests are represented on the Council, pursuant to G.L. c. 25, § 22(a). General Track participants are presumed to be familiar with the content of a Plan and the issues that they may likely seek to address during the course of the adjudicatory process. A General Track participant will be treated as a putative intervenor until the Department has issued rulings on intervention. D.P.U. 08-50-B at 26-33; Guidelines § 3.7.2. To the extent they seek to intervene in the Plan proceedings, the following persons/entities shall file their petitions to intervene on the General Track schedule: (1) voting and non-voting members of the Council; (2) any entity whose interests are represented on the Council; (3) any person/entity that has participated in the Council process; and (4) any person/entity that was previously granted intervention as a full party or limited participant in a three-year energy efficiency plan proceeding.

If there are any entities who are permitted to intervene as full parties pursuant to G.L. c. 30A § 10, but who otherwise did not participate in or whose interests were not represented in the Council process, a reasonable opportunity will be provided for such parties to formulate their respective positions on the Plans in the context of the limited period of time afforded the Department pursuant to G.L. c. 25, § 21(d)(2) to review the Plans. D.P.U. 08-50-B at 32 n.16; Guidelines § 3.7.2.

Responses to information requests are due within five (5) business days of receipt of the request, unless otherwise indicated. Where the computed response date is a Saturday, Sunday, or legal holiday, the response shall be due on the next following Department business day.

Petitions to intervene (Alternate Track) due November 14, 2018

Intervenor testimony (General Track) due November 16, 2018

Answers to (Alternate Track) petitions to intervene due November 16, 2018

Discovery (Alternate Track) commences

Upon Department ruling on

petition to intervene

Pre-hearing statement and intervenor testimony November 23, 2018

(Alternate Track) due

Public Hearing December 3, 2018

Evidentiary Hearings December 10-13, 17, 2018

Briefs To Be Determined

VI. PRELIMINARY DISTRIBUTION LIST

Elliott Jacobson, EEAC, elj@actioninc.org

Amanda Helwig, CLF, mhelwig@clf.org

Amy Boyd, EEAC, aboyd@acadiacenter.org

Eric Beaton, EEAC, eric.beaton@mass.gov

Donald Boecke, EEAC, Donald.Boecke@MassMail.State.MA.US

Caitlin Peale Sloan, CLF, cpeale@clf.org

Cindy Arcate, EEAC, carcate@poweroptions.org

Danielle Winter, Keegan Werlin, dwinter@keeganwerlin.com

Rebecca Davis, EEAC, RDavis@mapc.org

Deirdre Manning, EEAC, dmanning@smith.edu

Emmett Lyne, Rich May, Elyne@richmaylaw.com

Rachel Evans, DOER, Rachel.Evans@state.ma.us

Mike Ferrante, EEAC, mferrante@massoilheat.org

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Mary Wambui, EEAC, mwambui@dbedc.org
Justin Davidson, EEAC, jdavidson@marealtor.com
Paul Afonso, Brown Rudnick, pafonso@brownrudnick.com
Paul Johnson, EEACk, pjjohnson@comcast.net
Paul Gromer, EEAC, pgromer@peregrinegroup.com
Richard Juang, ACE, rmjuang@ace-ej.org
Richard Malmstrom, EEAC, richarda_malmstrom@dfci.harvard.edu
Robert Ruddock, Lock Lord, Robert.ruddock@lockelord.com
Robert Rio, EEAC, Rrio@aimnet.org
Victoria Rojo, EEAC, VRojo@iso-ne.com
Sharon Weber, EEAC, Sharon.Weber@MassMail.State.MA.US

Cape Light Compact JPE 2018 Operating Fund 001 Budget Report As of September 30, 2018

CHANGE IN NET POSITION	TOTAL EXPENSES	REVENUE OPERATING FUND CY18-TRANSFERS IN OPERATING FUND CY18-DTHER REVENUE TOTAL REVENUES EXPENSES OPERATING FUND CY18-ADVERTISING (POWER SUPPLY) OPERATING FUND CY18-ADVERTISING (POWER SUPPLY) OPERATING FUND CY18-BANK FEES OPERATING FUND CY18-BANK FEES OPERATING FUND CY18-BANK FEES OPERATING FUND CY18-COMPUTER EQUIPMENT OPERATING FUND CY18-COMPUTER OPERATING FUND CY18-COMPUTER OPERATING FUND CY18-COMPUTER OPERATING FUND CY18-LEGAL SERVICES OPERATING FUND CY18-LEGAL SERVICES OPERATING FUND CY18-POSTAGE OPERATING FUND CY18-SHIPPINGS OPERATING FUND CY18-SUBSCRIPTIONS OPERATING FUND CY18-SUBSCRIPT	
0.00	848,765.00	Budget Amount 848,765.00 0,00 0,00 85,000.00 11,250.00 500.00 0,77,805.00 4,438.00 2,800.00 19,790.00 19,790.00 13,294.50 2,775.00 2,800.00 15,000.00	
291,033.88	614,243.18	Actual Amount 848,765.00 56,362.06 150.00 905,277.06 47,412.78 4,687.50 0.00 2,927.71 0.00 71,255.55 2,760.80 2,800.00 5,109.31 16,312.82 7,022.50 13,294.50 2,433.96 158.65 232,743.75 1,329.97 299.40 1,139.24 0.00 16,875.00 0.00 91,724.19 0.00 91,724.19 0.00 91,724.19 0.00 8,787.40 147.48 3,070.44 7,446.25 0.00 292.50	
	234,521.82	Remaining Amount 0.00 (56,362.06) (150,00) (56,362.06) (150,00) (56,512.06) 37,587.22 6,562.50 5,00.00 6,549.45 1,677.20 0.00 390.69 3,477.18 8,977.50 0.00 1,083.68 1,261.00 619.26 7,100.00 1,083.68 1,261.00 619.26 12,483.87 3,715.94 0.00 35,447.00 5,800.00 37,954.91 5,000.00 450.02 596.75 2,957.00 1,750.00 352.52 1,469.56 3,853.75 2,000.00 107.50	53
	27.63%	Remaining % 0.00% 44.22% 58.33% 100.00% 16.35% 0.00% 8.42% 37.79% 0.00% 7.10% 17.57% 56.11% 0.00% 17.57% 56.11% 0.00% 17.57% 56.11% 0.00% 17.57% 56.11% 0.00% 17.57% 56.11% 0.00% 17.57% 56.11% 0.00% 17.57% 56.11% 0.00% 17.57% 56.11% 0.00% 17.57% 56.11% 0.00% 17.57% 56.11% 0.00% 17.59% 35.44% 48.01% 100.00% 15.91% 8.45% 16.61% 70.50% 32.37% 34.10% 26.88%	

s as Percent

2018 Actuals through Sep 2018

				DA Coore					
Program					TATE	200	ľ	Total BA Costs	1
	S = 1,412 52	Marketing 5 582.697	17.246.631		5.137.193	5 989.663	+	\$ 26.0	26,088,905
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A) - Neitherdal Verson stouts					112034		+	L	697633
All - headendai ivew Contraction			CEL DOO 4		250.088		-	1	1 052 465
AID - Residential muti-ramity Netrons	ľ	, ,	ŀ	+	2 6 4 6 3 7 0	١	1		1 3 43 CA4
Alic - Residential Home Energy Services - Messures	1	,	ı	+	4/6'6F6.		4	ı	3.675,017
AId - Residential Home Energy Services - RCS	۱	^		-	1,735,738	١	-		00,730
Ale - Residential Behavior/Feedback Program	\$ 12,191	<u>~</u>	\$ 172,698	_	127.960	l	-	1	342,362
A2 - Residential Products	\$ 226.629	\$ 153,478	\$ 3.700,000	\$	726,755	\$ 195	-	5.6	5.002,408
AZa - Residential Heating & Cooling Equipment	\$ 114,665	\$ 38,083	\$ 1,500,000	s Q	290,757	\$ 84	-	20	2,028,430
A2b - Residential Consumer Products	+08'81 \$	\$ 26,797	\$ 200,000	\$ 00	156,605	9 19	16.322	,	418,528
A2c - Residential Lighting	\$ 93,160	\$ 86.598	\$ 2,000,000	\$ Q	279,392	¥6 \$	94,300	\$ 2.	2,555,450
A3 - Residental Hard-to-Measure	\$ 247,138	1 \$ 172,612	\$ 1,134,875	\$ 5/	239,430	\$		\$ 1,	1,794.055
A3a - Residential Statewide Marketing		\$ 112,017	*	\$	٠	*	,	~	112.017
A3b - Residential Statewide Database	\$ (3,253	. \$	•	\$		\$		\$	13,253
A3c - Residental DOER Assessment	\$ 145,089	. \$		\$		\$		\$	145,089
A3d - Residental EEAC Consultants				us.	٠	\$		\$	
A3e - Residential Sponsorships & Subscriptions	\$ 27,522	\$ 11,165		<u>~</u>	•	••		*	38.687
A3f - Residential HEAT Loan	\$ 61,273	1 \$ 11,930	\$ 1,099,875	\$ 2	144.830	us.	,	* I	1,317,908
A3r - Residential Workforce Development		"		<u></u>	19,600			<u>_</u>	19,600
A3b + Residential R&D and Demonstration		\$ 12,500	\$ 35,000	8	75,000		,	ļ,	122,500
A31 - Residential Education		\$ 25,000	uş.	<u>"</u>		<u>~</u>			25,000
B - Low-locate	\$ 312,665	386,286	\$ 3,564,650	s	1,080,729	\$ 205,199	64	\$ 5,2	5,249,529
81 - Low-Income Whole House	1	5	1	<u>"</u>	1,080,729	\$ 205	205,199	25	5,135.896
B12 - Low-Income Single Family Retrofic			l	-	693.014		128,598	\$ 3.	3,020,167
81b - Low-Income Multi-Family Retrofit	\$ 68,507	7 \$ 18,256	\$ 1,564,650	\$	387,716	92 \$	109'92	\$ 2.	2,115,729
82 - Low-Income Hard-to-Measure	\$ 89,687	7 \$ 24,946	. \$	\$	10 mm	\$		5 7	113,633
B2a + Low-Income Statewide Marketing		\$ 22.684		s	٠	*		*	22,684
B2b - Low-Income Statewide Database	\$ 2,684	. 5	\$	*		s		\$	2,684
82c - Low-Income DOER Assessment	\$ 29,381	. \$ 1	. \$	8		\$,	\$	29,381
82d + Low-Income Energy Affordability Network	\$ 46,627	. \$ 1		\$	٠	\$		ut.	46.627
82e - Low-Income Sponsorships & Subscriptions	966'6 \$	29272 \$ 9		\$	•	\$		*	12,258
C - Commercial & Industrial	\$ 1,139,338	1 \$ 294,981	\$ 13,104,277	\$	2,728,701	\$ 693,	593,565	\$ 17,9	17,940,861
CI - Cal New Construction	\$ 78,303	3 \$ 13,794	\$ 714,879	39	326,443	\$ 49	49,175	\$ 1,	1,182,593
Cta - C&I New Buildings & Major Renovations		160'6 \$ 9	\$ 454,879	29	268,615	\$ 35	15,727	s	839'828
C1b - C4 Initial Purchase & End of Useful Life	\$ 17,947	7 \$ 4,703	\$ 260,000	8	57,827	<u>~</u>	13,448	2	353,925
C2 - C&I Retrofit	5	╌	\$ 12,319,398	.s	2,367,258	\$ 644	644,390	\$ 16,	16,443,062
C2s + C&1 Existing Building Retrofit	\$ 224,343	3 \$ 58,791	\$ 6,217,000	\$ 00	541,594	\$ 243	243.235	\$ 7.	7,284,962
C2b - C2l Small Business	\$ 551,786	6 \$ (03,110	\$ 5,293,048	48 5	1.293,344	\$ 326	_	\$ 7.	7.567,701
C2c - C&I Multifamily Retrofit	\$ 47,055	5 \$ 17,087	\$ 250,000	\$ 00	346,373	\$ 28	28,995	\$	689,511
C2d - C&l Upstream Lighting	\$ 95,465	5 \$ 14,379	\$ 559,350	\$ 05	185,948	\$ 45	45.746	\$	900.888
C3 - Cal Hard-to-Measure	\$ 142,387	67	\$ 70,000	\$ 00	35,000	82		\$	335,206
C3a - C&l Statewide Marketing		-	•	w	•	\$		\$	75.299
C3b + C&l Statewide Database	\$ 8,909	* 6	8	\$	•	\$		\$	B.909
C3c - C& DOER Assessment	\$ 97,530	. *	*	\$		\$		\$	97,530
C3d - C&I EEAC Consulants			*	2	•	\$,	\$	
C3e - C&I Sponsorships & Subscriptions	\$ 35,948	8 \$ 7,520	*	\$	•	2		2	43,468
C3f - C&I Worldorte Development		\$ 5,000	s,	S	20,000	s		\$	25,000
C3g - C&! R&D and Demonstration			\$ 70,000	\$ 00	15.000	s		\$	85,000
								,	

	L		l			PA Costs	2				PA Costs
Program	_	PPEA	ž	Marketing	Incentives	=	STAT	EMV	Ė	Total PA Costs	Total PA Costs
A - Residential	8	796,592	\$	384,114	\$ 9,983,548	548 5	2,672,074	\$ 371,398		\$ 14,211,725	54.5%
A1 - Residential Whole House	s	541,564		166,977	\$ 6,84	6,847,588 \$	1,291,398	\$	224,627	10.072,154	52.2%
A12 - Residential New Construction	<u>.</u>	14.697	s	2,276	\$ 21	213.738 \$	75.165	\$	12,589	318,466	45.6%
Alb - Residential Multi-Family Retrofit	s	24,856	~	5.246	2 16	161,207 \$	168'55	\$ 16	16.953	264,154	25.1%
A1c - Residential Home Energy Services - Measures	\$	439,782	\$	148.816	\$ 6,43	6,436,593 \$	1,072,526	\$ 168	168.385	B.266,102	54.2%
A1d + Residental Home Energy Services - RCS	s,	55,343	s	9,572	\$	•	1,068,767	\$ 22	22,867	1,156,549	89.1%
Ale - Residential Behavlor/Feedback Program		6,886	*	990'	ě.	36,050 \$	19,049	**	1,633	66.884	19.5%
A2 - Residential Products	S.	128,014	~	102,041	\$ 233	2,331,390 \$	290,993	*	146.770	2,999,209	×0.09
A2a - Residential Hearing & Cooling Equipment	\$	64,770	×	16,687	\$ 54	545.840 \$	82,523		32,148	741,967	36.6%
A2b - Residential Consumer Products	<u>.</u>	10,621	*	26.866	\$ 17	176.291	100,830		60,113	374,722	85.68
A2c - Residential Lighting	<u>~</u>	52,622	\$	58,487	\$ 1,60	\$ 097.609	107,640	\$	54,510	1,882,520	73.7%
A3 - Residential Hand-to-Measure	s.	127,014	s	960'611	2 80	804.570 \$	89,682	\$		\$ 1,140,362	63.6%
A3a - Residential Statewide Marketing	<u>پ</u>		s	62,108	*	\$		s	,	82,108	58.1%
A3b + Residential Statewide Catabase	<u>پ</u>		us.		*	-		\$	•	,	20.0%
A3c - Residential DOER Assessment	~	92,403	s,		2			\$		\$ 92,403	63.7%
A34 - Residential EEAC Consultants	s	0.000	\$		\$		٠	\$			%0.0
A3a - Residential Sponsorships & Subscriptions	-	,	S		\$	•	•	\$	٠		20.0
A3f - Residential HEAT Loan	\$	34,611	\$	6,715	\$ 80	804.570 \$	67,516	\$,	\$ 913,411	86.3%
A3g - Residential Worldforce Development	s	340	•		8	•	22,167	\$		1 22,167	113.1%
A3h - Residential R&D and Demonstration	2		\$		\$		•		,		%0'0
A31 - Residential Education	<u>"</u>		s	47,273	s	-		\$		47,273	21.681
B - Low-Income	\$	165,897	s	45,268	\$ 1,108	1,108,944 \$	248,794	S	73,510	1,662,415	31.7%
BI - Low-Income Whole House	\$	127,809	s	30,243	\$ 1.10	1,108,944 \$	268,796	\$	73,510	\$ 1,609,302	31.3%
Bla - Low-Income Single Family Rectrofit		68,717	•	23,088	\$ 63	\$ 190'989	158,733	\$ \$2	\$2,309	1 958,907	31.8%
B1b - Low-Income Multi-Family Retrofit	N	39,092	,	7,156	\$ 47	472,883 \$	110.063	*	21,201	\$ 650,395	30.7%
82 - Low-Income Hard-to-Measure	us.	38,088	8	15,025	\$	9		\$		53,113	46.7%
82a - Low-Income Statewide Marketing	<u>~</u>	,	.∽	15,025	*	•		~		15,025	66.2%
82b - Low-Income Statewide Database	•	•	•	٠	~	•		~	-	*	0.0%
82c - Low-Income DOER Assessment	,,	21,651	•	•	*	•	•	\$		\$ 21,651	X7.E7
81d - Low-Income Energy Affordability Network	<u>.,</u>	16.437			•	•		~		16,437	35.3%
B2a - Low-Income Sponsorships & Subscriptions	ş		~	٠	- 1			\$			0.0%
C - Commercial & Industrial	\$	646,707	W.	148,213	\$ 3,070,182	,182.	650,043	"	240,490	\$ 4,775,674	26.4%
C1 - CAI New Construction	s	52.472	8	11,756	E) \$	132,360 \$	129,771	**	22,888	349,247	29.5%
C1a - CEI New Buildings & Major Renovations	<u>~</u>	40,435	~	4,907	9	64,337 \$	100,378	<u>~</u>	17,622	127,679	27.5%
C1b - C&I Initial Purchase & End of Useful Life	۵,	12,037		6,849	9 \$	68.023	29,393	<u>"</u>	5.266	121,568	34.3%
C2 - Cal Retrofit	ي.	536,730	50	98,311	\$ 2,93	2,937,821 \$		s	237,602	4,318,340	26.3%
C2a - C&l Existing Building Retrofit	5	149.275	<u>~</u>	18,240		944.136	105.194	<u></u>	62,786	1,279,630	17.6%
C2b - C&I Small Business	<u>., </u> .	307.922	, .	58.484	1		"	۵,	34,048	2,470,812	32.62
C2c - CEI Mutalamily Netrolit	4.	20.237	۸.	070'5	24 00	304 475	73,702	٠,	27897	225 776	
C.2d - Car Opstream Umung		17 55	٠,	70,107		-					76. CE
C3 - Citi Hard-to-Measure		27,203	۸.	48,140			7,133			34034	*775
C3a - C#I Statewide Planketing	<u>. </u> .		۸,	45,073	۸.		0	٠.		20,57	300
C3b - C.K. Statewide Ustabase	4.	EYEAE	۸.							27 505	2003
Cot - Cal Door Country	. .	200.00		,						٠	20.0
Cle - (h) Consociation & Caberriagions				3.071	5		.	_	,	3,071	7.1%
O. Varieties Development	. _					,	2.435	-		2,435	X7.6
Cly - CEI R&D and Demonstration			.,		S				,		200
GRAND TOTAL		1.609.196	uş.	\$65,188	581,595 15 14,162,673		\$ 3,590,952 \$	1 705,397		\$ 20,649,814	41.9%
Total Demand Response	\$		\$	1,747	\$ 91	99,422 \$	179,474	\$	96,539	\$ 377,182	107.9%
Residential Demand Response	2	٠	•	1,747	8	99.422 \$	179,474	S		\$ 325,267	
Commercial Demand Response	\$	٠	w		•	•	٠		51,915	\$ 51,915	
Total EE & DR	S2	961'609'1 \$1	144	583,341	\$ 14,247	9601	\$ 14,262,096 \$ 3,770,426	s	966'108	\$ 21,026,995	42.6%
									١		

Total Demand Response
Residental Demand Response
Commercial Demand Response
Total EE & DR