# Appendix

# Massachusetts

# Department of Public Utilities Restructuring Overview Massachusetts Retail Electricity Market

http://www.mass.gov/?pageID=eoeeaterminal&L=3&L0=Home&L1=Energy %2c+Utilities+%26+Clean+Technologies&L2=Electric+Power&sid=Eoeea& b=terminalcontent&f=doer\_pub\_info\_summary\_competitive\_market\_2007 &csid=Eoeea

# Cape Light Compact Regulatory Proceedings

http://www.mass.gov/?pageID=eoeeaterminal&L=6&L0=Home&L1=Energy%2C+Utilit ies+%26+Clean+Technologies&L2=Electric+Power&L3=Electric+Market+Information &L4=Electric+Industry+Restructuring&L5=Restructuring+Issues+and+Proceedings&sid =Eoeea&b=terminalcontent&f=dpu\_restruct\_competition\_muni\_aggregation&csid=Eoee a

# Massachusetts Electricity Suppliers

(Standard Offer Suppliers)

- **O <u>Fitchburg Gas & Electric Light Company</u>**
- <u>National Grid</u>
- o <u>NSTAR Electric</u>
- o Western Massachusetts Electric Company

# New England ISO Information

## Overview

ISO New England is a regional transmission organization (RTO), serving Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont. ISO New England meets the electricity demands of the region's economy and people by fulfilling three primary responsibilities:

- Minute-to-minute reliable operation of New England's bulk electric power system, providing centrally dispatched direction for the generation and flow of electricity across the region's interstate high-voltage transmission lines and thereby ensuring the constant availability of electricity for New England's residents and businesses.
- Development, oversight and fair administration of New England's wholesale electricity marketplace, through which bulk electric power has been bought, sold and traded since

1999. These competitive markets provide positive economic and environmental outcomes for consumers and improve the ability of the power system to meet ever-increasing demand efficiently.

• Management of comprehensive bulk electric power system and wholesale markets' planning processes that address New England's electricity needs well into the future.

ISO New England is an independent, not-for-profit corporation. To effectively carry out its charge, the company, its Board of Directors and its 400 employees have no financial interest or ties to any company doing business in the region's wholesale electricity marketplace.

### Timeline

**February 2008**: ISO New England holds first auction under the new Forward Capacity Market, designed to ensure the region continuously develops an adequate supply of electricity to meet growing demand

February 2005: ISO New England begins operation as a Regional Transmission Organization

March 2004: FERC conditionally approves ISO New England as an RTO

**March 2003**: ISO New England implements Standard Market Design, an improved wholesale market design for the region

**January 2003**: ISO New England Board of Directors votes unanimously to pursue the creation of an RTO for New England.

**June 2001**: ISO New England proposes Standard Market Design, rules to govern new wholesale markets

**May 1, 1999**: ISO New England begins managing restructured regional wholesale power markets

July 1, 1997: ISO New England created to manage the regional bulk power system and new wholesale markets and ensure access to transmission systems

1996: FERC Order 888 deregulates portions of the electric power market

**1971**: New England Power Pool (NEPOOL) created to establish a central dispatch system and enhance system reliability

**January 1966**: Northeast Power Coordinating Council (NPCC) formed to improve system reliability

November 9, 1965: Great Northeast Blackout shuts down power for 30 million customers

# New England Renewable Portfolio Standards

Five of the six New England states (all but Vermont) have Renewable Portfolio Standards (RPSs) to encourage the development of renewable resources in the region. New Hampshire is the most recent state to establish a standard and is in the process of promulgating RPS regulations, which will go into effect sometime in 2008. Several states have other related requirements for the growth of renewable resources and energy efficiency. Vermont and Maine

have newly established renewable requirements outside the RPS structure. Connecticut has new growth requirements for energy-efficiency programs, and Massachusetts recently announced energy-efficiency goals.

The Renewable Portfolio Standards in the New England states require a certain percentage of the electric energy produced or purchased by utilities to be from designated types of renewable resources

over the next five years or more. This percentage typically increases annually up to a specified level. General types of resources the states qualify as renewable include small hydro, solar, wind, biomass, landfill gas, ocean thermal, and, in some states, fuel cells.

Some specific types unique to each state's RPS exist as well. The RPSs are intended to stimulate the development of new renewable resources and achieve a more diverse and —clean || generation portfolio.

To meet their renewable energy requirements, suppliers may buy Renewable Energy Certificates (RECs) created at renewable facilities within the New England region.

Alternatively, they may own and operate such resources to create RECs. Suppliers that do not meet their state's RPS requirements with generation are required to make Alternative Compliance Payments (ACPs) to cover the gap. These funds are to be used to invest in renewable projects within the state. These standards do not apply to municipal utilities. Maine, Connecticut, and Massachusetts implemented RPSs before other states in the region. Rhode Island implemented its RPS in 2007, and Vermont, which passed a state law in 2005, is implementing its regulations for renewables. A number of other northeastern states, including New York, New Jersey, and Pennsylvania, also have implemented RPSs. The specific percentages of electric energy that suppliers must obtain from renewable sources vary by state and year, as do the types of resources that qualify as renewable. The RPS requirements in 2007 were 5% for Connecticut suppliers, 2.5% for Massachusetts suppliers, 30% for suppliers in Maine. Rhode Island's RPS requirements started in 2007 at 3%. Vermont's requirement covers just incremental growth from 2005 to 2015. By 2015, the RPS requirements will increase to 14% in Connecticut, 10% in Massachusetts, and 10% in Rhode Island. The requirement in Maine will remain at 30%.

In 2007, renewable resources in New England generated about 10% of the region's total electricity. These resources included wind, refuse, landfill gas, biomass, and hydroelectric generators, excluding hydro generators that use pumping facilities to store the water source. The ISO's

2007 Regional System Plan (RSP07) indicates that the New England renewable projects in the ISO Generator Interconnection Queue will not provide sufficient energy to meet the aggregate RPS energy requirements set for New England for 2016.45 Unless many smaller projects are installed and operating by 2016, or renewable projects outside New England are certified for meeting the New England states' RPSs, the suppliers could fail to meet their RPS requirements. RSP07 contains additional information on Renewable Portfolio Standards.

# Massachusetts CCA Websites

Cape Light Compact http://www.capelightcompact.com/ Marlborough http://www.colonialpowergroup.com/

# Ohio

In 1999, SB 3 (Chaptered as 4928 of the Ohio Revised Code) established a competitive electricity market in the State of Ohio. This same law includes Community Choice, which is called "governmental aggregation" in the code. The electricity industry restructuring accomplished by this law separates the generation and distribution of electricity, and allows consumers to select the source of their electric supply from competitive suppliers.

# Timeline of Electricity Restructuring in Ohio

http://www.eia.doe.gov/cneaf/electricity/page/restructuring/ohio.html

# Ohio ISO

There are two ISOs that cover Ohio, Midwest and PJM. NOPEC is in the Midwest ISO territory

# Governmental Aggregators in Ohio

http://www.puco.ohio.gov/apps/RegulatedCompanyList/index.cfm?IID=8

# RPS

The Public Utilities Commission of Ohio (PUCO) has adopted rules that implement the alternative energy portfolio standard created by Senate Bill 221, Ohio's electricity law. The rules also incorporate new requirements for energy efficiency, long-term forecast and greenhouse gas reporting and carbon dioxide control planning.

http://www.puco.ohio.gov/PUCO/MediaRoom/MediaRelease.cfm?id=9330

# **CCA Websites**

Northeast Ohio Public Energy Council http://www.nopecinfo.org/

## Northwest Ohio Aggregation Coalition

No Website at this time

# California

# San Joaquin Valley Joint Powers Authority

http://www.communitychoice.info/sjvpa/

# Marin Energy Authority

http://www.marinenergyauthority.org/

# ATTACHMENTS

1. Cape Light Compact - Amendments to Approved Energy Efficiency Plan 2007-2012

2. San Joaquin Valley Joint Powers Authority – Television Message Text

3. Northeast Ohio Public Energy Council – Bylaws Amendment 2008

4. Northeast Ohio Public Energy Council – 2009 Energy Supply Agreement 2009

5. Northwest Ohio Aggregation Coalition – 2009 Request for Proposals for Professional Services for Certified Retail Electric Supply

6. San Joaquin Valley Joint Powers Authority – Three Year Budget for Communications Campaign

7. San Joaquin Valley Joint Powers Authority – Marketing Overview

- 8. Cape Light Compact Second Year Report 1999
- 9. San Joaquin Strategic Plan Update 2005
- 10. Marlborough Aggregation Plan 2006
- 11. Cape Light Compact Contract With ConEdison Solutions 2006
- 12. Cape Light Compact Green Product Disclosure Materials 2009
- 13. Enroll in Cape Light Compact Green Program Materials 2009
- 14. Home Energy Audit for Residents Web Form 2009
- 15. Cape Light Compact Newsletter 2009



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November 26, 2008

## VIA ELECTRONIC MAIL ORIGINAL BY HAND DELIVERY

Mary Cottrell, Secretary Department of Public Utilities One South Station, 2<sup>nd</sup> Floor Boston, MA 02110

*Re:* The Cape Light Compact's Proposed Second Amendment to Its Approved Energy Efficiency Plan: 2007-2012 DPU 07-47

Dear Secretary Cottrell:

Please find enclosed for filing an original and six (6) copies of the Cape Light Compact's Proposed Second Amendment to its Approved Energy Efficiency Plan, in the above-referenced proceeding.

Thank you for your attention to this matter. If you require further information or have any questions, please do not hesitate to contact me.

Sincerely,

Suzy Hong

SH/drb

Enclosures

cc: Benjamin Spruill, Hearing Officer (w/enc.) (via email and hand delivery)
Jamie Tosches, Assistant Attorney General (w/enc.) (via email and first class mail)
Steven Venezia, DOER (w/enc.) (via email and first class mail)
Douglas Denny-Brown, Esq. (via email and first class mail)
Margaret T. Downey, Cape Light Compact (w/enc.) (via email and first class mail)

T:\Clients\BCY\DSM\EEP Implementation\2009 EEP Filing\Let Cottrell CLC Proposed 2nd Amendment to EEP 2007-2012 (2008-11-26).bcy.doc

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### COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES

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The Cape Light Compact's Proposed Second Amendment to Its Approved Energy Efficiency Plan: 2007 – 2012

DPU 07-47

## THE CAPE LIGHT COMPACT'S PROPOSED SECOND AMENDMENT TO ITS APPROVED ENERGY EFFICIENCY PLAN: 2007 - 2012

## I. INTRODUCTION

1. The Towns of Aquinnah, Barnstable, Bourne, Brewster, Chatham, Chilmark, Dennis, Edgartown, Eastham, Falmouth, Harwich, Mashpee, Oak Bluffs, Orleans, Provincetown, Sandwich, Tisbury, Truro, West Tisbury, Wellfleet, and Yarmouth, and the counties of Barnstable and Dukes County, acting together as the Cape Light Compact (the "Compact"), hereby submit to the Department of Public Utilities (the "DPU" or the "Department") their proposed second amendment (the "Proposal") to their approved multi-year Energy Efficiency Plan: 2007 – 2012 (the "EEP"). Please see Exhibit A for the Cape Light Compact Energy Efficiency Plan 2007 – 2012, 2009 EEP Update.

2. On October 1, 2008 the Department approved an amendment to the EEP to increase funding for residential energy efficiency programs for this winter (2008), DPU 07-47-A (October 1, 2008). The amendment was filed pursuant to a request from the Department to submit proposals for such increased funding. Letter from Paul J. Hibbard, Chairman of the DPU, and Tim Woolf and W. Robert Keating, Commissioners of the DPU, to Energy Efficiency Service Lists Regarding DOER Request to Increase Funding for Residential Energy Efficiency Programs (July 25, 2008). This Proposal includes funding and measures for this winter (2009) already approved by the Department in the October 1<sup>st</sup> Order.

3. On August 7, 2008, the Department issued a letter directing Program

Administrators ("PAs") to file 2009 Energy Efficiency Plans. Letter from Paul J. Hibbard, Chairman of the DPU, and Tim Woolf and W. Robert Keating, Commissioners of the DPU, to Energy Efficiency Service Lists Regarding 2009 Energy Efficiency Plans (August 7, 2008). This Proposal is submitted pursuant to the Department's letter of August 7<sup>th</sup>.

### II. BACKGROUND AND HISTORY OF THE COMPACT AND ITS ENERGY EFFICIENCY PROGRAM

4. The Compact is a governmental aggregator under G.L. c. 164, §134 and consists of the twenty-one towns in Barnstable and Dukes Counties, as well as the two counties themselves. It is organized through a formal Intergovernmental Agreement under G.L. c. 40, §4A. The Compact's Aggregation Plan was approved by the Department in DTE 00-47. The Compact maintains a business office within the Barnstable County offices located at the Superior Courthouse at 3195 Main Street in Barnstable, MA 02630.

5. The purposes of the Compact include, among other things, (1) to provide the basis for aggregation of all consumers on a non-discriminatory basis; (2) to acquire the best market rate for electricity supply and transparent pricing; (3) to provide sharing of economic savings to consumers based on current electric rates and/or cost-of service ratemaking approved by the Department; (4) to provide full public accountability to consumers; and (5) to utilize and encourage demand side management and other forms of energy efficiency and to advance consumer awareness and adoption of a wide variety of energy efficiency measures through the implementation of an energy efficiency plan. See Compact Intergovernmental Agreement at Article I.

6. The Compact presently offers a competitive power supply option on an opt-out basis to over 200,000 customers, across all customer classes, who are located within the

2

Compact's service territory. The Department approved the Compact's current form of universal service competitive electric supply agreement in DTE 04-32 (May 4, 2004), pursuant to which the Compact has entered into supply agreements with Consolidated Edison Solutions, Inc. The Compact also operates and administers its own Energy Efficiency Plan.

7. In its Final Order of April 6, 2001, the Department approved the Compact's original Energy Efficiency Plan. Final Order, April 6, 2001, DTE 00-47C ("Final Order"). In its Final Order, the Department found that the Compact was establishing a load aggregation program for purposes of Section 134(b), and that the Energy Efficiency Plan was consistent with state energy conservation goals. See Final Order, DTE 00-47C.

8. In its Order of October 23, 2003, the Department approved the Compact's Energy Efficiency Plan, Phase II, 2003-2007 ("Phase II Plan"). Order, October 23, 2003, DTE 03-39. In certifying the Phase II Plan, the Department found that the Compact was establishing a load aggregation program for purposes of Section 134(b), and that the revised Energy Efficiency Plan was consistent with state energy conservation goals. See October 23, 2003 Order, DTE 03-39.

9. The Department stamp-approved the Compact's Energy Efficiency Plan, Phase III, 2005-2007 ("Phase III Plan"), on November 8, 2005. See Stamp Approval, DTE 05-34.

10. The Department also stamp-approved the Compact's current EEP on December 24, 2007. See Stamp Approval, DPU 07-47. The current EEP is an outgrowth of the Compact's previous energy efficiency programs which the DPU had already approved.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> The Compact's original Energy Efficiency Plan was filed with the Department in 00-47C, the Phase II Plan was filed with the Department in 03-39 and the Phase III Plan was filed with the Department in 05-34. The Compact's Energy Efficiency Plan: 2007-2012 was filed with the Department in 07-47. Upon request, the Compact will provide the prior and existing plans to the Department or any other interested person.

### III. REQUESTED PROCEDURES TO REVIEW THIS PROPOSAL

11. The EEP specifically provides for updates and amendments to the EEP as necessary to respond appropriately to market and regulatory developments as well as other changes in the Massachusetts energy efficiency industry. EEP at 4. The EEP thus clearly contemplated the need for updates and amendments over the life of the multi-year plan.

12. This Proposal is in the nature of the 2008 update, which was approved by the Department. This Proposal continues the program enhancements and increased funding already approved for 2008. Also, like the 2008 update, this Proposal is submitted at the direction of the Department, in response to new legislation and the changing environment for energy efficiency in the state.

13. The Compact therefore respectfully requests that the Department utilize the same procedures for review of this Proposal that were used for the prior proposed amendment. In that case, the Department allowed a comment period and discovery by Department staff. The Compact sees no reason to require additional procedures in this instance. As discussed in paragraph 42, the Compact's Proposal has already been subject to a highly public review process.

14. Furthermore, the Department used the same type of procedures for review of prior Compact energy efficiency plans.

15. As discussed in paragraphs 4 and 5, the Department approved the prior Compact energy efficiency plans pursuant to Section 134(b), which states that a "municipality or group of municipalities establishing a load aggregation program" may "adopt an energy plan" describing the manner in which the "municipality or group of municipalities may implement demand side management programs." Municipalities must submit the energy plan to the Department "to

4

certify that it is consistent with ... state energy conservation goals." G.L. c. 164, §134(b).<sup>2</sup>

16. The Compact has already submitted a separate Memorandum on Procedures to request the specific procedures that the Department should follow in this case. See DPU 07-47, *Memorandum of Procedures to Certify the Cape Light Compact Energy Efficiency Plan: 2007 – 2012* (March 1, 2007). When the Department approved the Compact's original Energy Efficiency Plan, the Phase II Plan, the Phase III Plan, and the current EEP, the Department served discovery requests and allowed interested parties to file comments. See DTE 00-47C, DTE 03-39, DTE 05-34 and DPU 07-47. The Department should, *at most*, follow the same type of process for this Proposal. Furthermore, as this Proposal only serves to continue and enhance the Compact's existing EEP, the Compact respectfully submits that the Department need only conduct a limited review to determine whether the Proposal effects the Department's earlier determination of consistency with state energy conservation goals.

### IV. SUMMARY OF THE PROPOSAL

17. In its letter of August 7<sup>th</sup>, the Department stated that it expects that Program Administrators (the "PAs") "will use program implementation in 2009 as a transition year leading into the implementation of expanded energy efficiency programs under the [Green Communities] Act, beginning in 2010." Letter from Paul J. Hibbard, Chairman of the DPU, and Tim Woolf and W. Robert Keating, Commissioners of the DPU, to Energy Efficiency Service Lists Regarding 2009 Energy Efficiency Plans (August 7, 2008).

18. The Department also requested that, in addition to standard content, 2009 plans include:

 $<sup>^2</sup>$  The recently passed Green Communities Act (St. 2008, Chapter 169) (the "Act") provides that energy efficiency programs will continue to be "administered by . . . municipal aggregators with energy plans certified by the *Footnote continued on next page*.

- a proposal for increased budgets for 2009, relative to previous years;
- for electric plans, estimates of expected funding from the Regional Greenhouse Gas Initiative ("RGGI") and Forward Capacity Market ("FCM") proceeds; and
- for electric plans, a proposal for how any remaining incremental costs will be recovered.
- 19. The Compact's original EEP: 2007 2012 filing included:
- Petition of Cape Light Compact Seeking Certification of Energy Efficiency Plan: 2007 – 2012;
- Memorandum of Procedures to Certify the Cape Light Compact Energy Efficiency Plan: 2007 – 2012;
- The Cape Light Compact Energy Efficiency Plan: 2007 2012;
- Cape Light Compact Measurement and Verification Plan;
- Report of the Cape Light Compact on Its Energy Efficiency Plan: 2007 2012; and
- Statement in Support of the Cape Light Compact Energy Efficiency Plan: 2007 –
   2012 (by Synapse Energy Economics, Inc.).

20. As this Proposal is an update to the existing, approved EEP the Compact refers the Department to the documents already filed in DPU 07-47.

21. This Proposal includes an updated 2009 program plan with supporting appendices; a spreadsheet illustrating how remaining incremental costs will be recovered (please see Exhibit CLC-Z); and a spreadsheet illustrating the customer rate impacts (please see Exhibit CLC-Z-1).

<sup>[</sup>D]epartment under subsection (b) of section 134 of Chapter 169." G.L. c. 25, §19.

22. The Compact's approach to this Proposal focuses on: (i) expanding programs to address customer request backlogs due to lack of funding and to provide increased incentives to maximize program participation and provide direct financial benefits to consumers; and (ii) implementing new programs and innovative pilot programs.

23. The Proposal includes increased budgets for 2009. The total overall budget proposed for 2009 is \$10,067,635. This compares to a total overall budget for 2008 of \$5,842,022 (which includes the increased funding approved in DPU 07-47-A). The Compact has proposed budgets based on its estimates of proceeds from the system benefits charge, the FCM, RGGI and other funding to be approved by the Department. The Compact believes that its proposed budgets for 2009 are necessary to meet the ever-increasing need and demand for its programs.

24. The Compact estimates that expected funding from RGGI for 2009 will be approximately \$440,094.

25. The Compact's estimate of expected funding from RGGI is based on its proceeds from the September 2008 RGGI auction, which are estimated to be \$146,698. Since RGGI auctions are expected to take place throughout 2009, the Compact took the dollar allocation from the September 2008 auction and multiplied it by 3 to come up with an estimate for funds for program year 2009.

26. The Compact estimates that expected funding from FCM proceeds will be approximately \$240,000.

27. The Compact's estimate of expected funding from FCM proceeds is based on the Compact's continued participation in the ISO New England Other Demand Resources Transition Program with monthly Installed Capacity Market Transition Payments estimated to average

7

\$20,000 per month.

28. The Compact's increased program budgets for 2009 also include "other funding" as allowed under the Act. St. 2008, Chapter 169, §11.

29. Section 11 of the Act allows energy efficiency programs to be funded from, among other sources, "other funding as approved by the [D]epartment after consideration of: (i) the effect of any rate increases on residential and commercial consumers; (ii) the availability of other private or public funds, utility administered or otherwise, that may be available for energy efficiency or demand resources; and (iii) whether past programs have lowered the cost of electricity to residential and commercial consumers." G.L. c. 25, §19.

30. The Compact's analysis of the rate impacts of the Department-approved funding indicates that the proposed amount of such funding will result in a rate increase of 2.22 mils per kilowatt hour. In general that will amount to a \$1.11/month increase on residential customer bills (assuming a usage of 500 kWh/month) and \$6.65/month increase on commercial customer bills (assuming a usage of 3,000 kWh/month). Exhibit CLC-Z-1 presents information supporting the estimated rate impacts.

31. The Cape Light Compact received a \$1.5 million grant from the Massachusetts Technology Collaborative Renewable Energy Trust's Green Affordable Housing Initiative, which aims to catalyze the affordable housing financing, development, and builder communities to include more green design and renewable energy in future developments. The Cape Light Compact will help 55 units on Cape Cod and Martha's Vineyard to build to LEED-H® standards and install renewable energy systems on affordable housing. The 16 completed units on Cape Cod and Martha's Vineyard were the first in the nation to achieve LEED-H Platinum standards in the multi-family and single detached housing categories. In addition, many of the Compact's programs are joint efforts with other PAs and/or program sponsors. The Compact has thereby leveraged and maximized the available private and public funding for energy efficiency and demand resources that it is aware of.

32. Energy efficiency lowers the cost of electricity by reducing customer bills. Typical electric customer savings from comprehensive energy efficiency range from 10% to 30%, potentially more in some cases. See Tim Woolf, Commissioner, Department of Public Utilities, *Turbo-Charging Energy Efficiency in Massachusetts: A DPU Perspective* (PowerPoint presentation), presented at the Restructuring Roundtable (April 11, 2008).<sup>3</sup> Participating customers can see reductions on their entire bill. *Id*. Electricity rates in Massachusetts range from 14 ¢/kWh to 21 ¢/kWh. *Id*. Energy efficiency measures cost roughly 3-4 ¢/kWh. *Id*. The benefit-cost ratio is therefore very favorable from the customer's perspective.

33. Energy efficiency can also reduce wholesale energy and capacity costs. *Id.* A recent study for the Massachusetts Technology Collaborative found that eliminating electricity load growth through energy efficiency and combined heat and power could reduce wholesale electricity prices by as much as 5%.<sup>4</sup> These benefits accrue to everyone participating in the wholesale energy market. With regard to wholesale capacity prices in the Forward Capacity Market, demand resources represented 64% of new resources that cleared the first auction, including 660 MW of energy efficiency.<sup>5</sup> This will clearly help dampen the price for capacity in future auctions. Therefore, even customers who do not participate in any energy efficiency

<sup>&</sup>lt;sup>3</sup> For a copy of the presentation, please contact Kevin Galligan, Energy Efficiency Program Manager, at <u>kgalligan@capelightcompact.org</u>.

<sup>&</sup>lt;sup>4</sup> Synapse Energy Economics, Inc., *Impacts of Distributed Generation on Wholesale Electric Prices and Air Emissions in Massachusetts*, prepared for the Massachusetts Technology Collaborative (March 2008).

<sup>&</sup>lt;sup>5</sup> ISO New England, Inc., Forward Capacity Auction Results Filing, Attachment A, FERC Docket No. ER08-633 (March 3, 2008).

programs will experience reductions in electricity commodity costs. These benefits will accrue to all electric customers in New England.

34. The Compact has also attached a spreadsheet illustrating how remaining incremental program funding will be recovered through other funding. Exhibit CLC-Z presents the program funding requirements forecast by month and the various funding sources needed to meet these program funding requirements. The funding sources include the system benefits charge, potential short-term borrowing and recovery (approved by the Department in DPU 07-47-A), estimated FCM and RGGI funds and other funding as approved by the Department. The Department-approved "other funding" (line 9 of Exhibit CLC-Z) is proposed to be collected through a fully reconciling mechanism between NSTAR Electric Company and the Compact upon approval of the NSTAR Electric Company proposed energy efficiency reconciling factor (the "EERF"). *See* DPU 08-10-A at 19-21 (October 1, 2008). Exhibit CLC-Z includes a description of the true-up mechanism the Compact contemplates for this Department-approved funding.

35. The Compact respectfully requests Department approval of this Proposal as soon as practicable prior to the first full week of 2009 (January 5, 2009). Timely approval of the Compact's Proposal will ensure that the Compact can prudently spend funds to fulfill commitments to vendors and ensure continuous delivery of programs and services. Since the Compact cannot prudently incur costs without Department approval of this Proposal, the Compact may have to suspend programs and services and re-start them once funding is approved. The Compact hopes to avoid stopping and starting programs and services so that vendors may manage resources more effectively and efficiently and, most importantly, so that customers can have access to programs and services without interruption during the critical winter months of 2009.

36. The Compact's Proposal is consistent with the Department's finding in DPU 07-47 that the Compact's EEP accomplishes state energy conservation goals. The Compact's Proposal is also a step toward achieving goals set forth in the Act, such as meeting at least 25 percent of the state's electric load with demand side resources, including energy efficiency, by 2020 and reducing total energy consumption in the state by at least 10 percent by 2017 through "green communities," such as the Compact. St. 2008, Chapter 169, §116. These are realistic goals and the Compact believes that energy efficiency programs and measures, like those included in the Proposal, will achieve the goals set forth in the Act.

37. The Compact consulted with its key program delivery vendors and confirmed that the proposed energy efficiency services can be achieved with the current and proposed expanded workforce of qualified staff and contractors. In fact, many of the Compact's current contractors will be better able to respond to increased demand due to the decrease in other work caused by current economic conditions.

38. The Compact consulted with the Department of Energy Resources (the "DOER") throughout the development of this Proposal consistent with the guidance provided by the DOER. See Massachusetts Department of Energy Resources, *Guidance for 2009 Electric Energy Efficiency Programs* (August 22, 2008). On October 3, 2008 the Compact provided DOER staff and their consultants with preliminary savings goals by program, including supporting assumptions. In addition, on November 11, 2008 the Compact provided the DOER with all materials provided at public information hearings held locally between November 10 - 24.

39. The Compact's Proposal, and all of the programs contained therein, are cost-

11

effective according to the Department's total resource cost ("TRC") test. On average, all of the Compact's efficiency programs in the Proposal combined are estimated to have a benefit-cost ratio of roughly 3.82 (using the TRC test without adders) and 4.14 (taking into account capacity and energy Demand Reduction Induced Price Effects). Exhibit B, Appendix A5.

40. All of the programs combined are expected to save roughly 20,600 MWh per year, leading to lifetime energy savings of roughly 208,100 MWh. Exhibit B, Appendix A6. The programs are also expected to save 3.7 MW in annual summer demand savings, leading to lifetime summer demand savings of 54.1 MW. *Id.* The Compact's investment of roughly \$10.1 million in energy efficiency activities is expected to result in a total of \$40.6 million in net benefits to the electricity system and the customers on Cape Cod and Martha's Vineyard, accounting for energy and capacity demand reduction induced price effects. Exhibit B, Appendices A3 and A1, respectively.

41. As the Proposal includes forecasts of budgets and program goals, the Compact will file with the Department an annual report on 2009 budgets and screening analyses, to confirm that implementation of this Proposal is consistent with state energy conservation goals and cost-effective according to the TRC test.

42. The Compact's Proposal was developed through a highly public review process. Local newspapers and radio stations provided information about new programs and raised awareness of the Proposal as it was taking shape. The Compact held four public hearings on the Proposal and solicited public feedback through surveys and written comments. A total of sixtyseven comments and surveys responses were submitted as of Tuesday, November 25, 2008.<sup>6</sup>

<sup>&</sup>lt;sup>6</sup> Key findings of the survey include: 81% of survey respondents support an expanded Residential Home Energy Audit/MassSAVE program, 85% of survey respondents said they would be willing to pay more on their monthly *Footnote continued on next page*.

The results of the survey demonstrate that Cape Cod and Martha's Vineyard residents desire to invest in long-term solutions aimed at protecting and preserving their surroundings. The results of the survey also indicate residents' willingness to pay more to ensure that effective energy efficiency improvements are implemented. The Compact has taken all comments and public input into consideration in submitting this Proposal. The Compact provided staff from the DOER, the Department of Housing and Community Development and the Low-Income Energy Affordability Network ("LEAN") with a chance to review and comment on the Proposal. Comments received by the Compact have been supportive and are reflected in this Proposal.

43. In addition, the Energy Efficiency Committee of the Compact Governing Board approved the Proposal on September 22, 2008. The Energy Efficiency Committee, like the Compact's Board in general, consists of local representatives from the Compact's member municipalities. These local representatives are actively involved in the community and accountable to their appointing authorities.

### V. COMPONENTS OF THE FILING

44. The Compact is submitting the following documents with this Proposal:

Exhibit A:	The Cape Light Compact Energy Efficiency Plan 2007 -						
	2012, 2009 EEP Update						
Exhibit B:	Appendices A - C						
Exhibit CLC-Z:	Cape Light Compact Pro Forma 2009 Energy Efficiency						
	Program Funding						
Exhibit CLC-Z-1:	Cape Light Compact 2009 Energy Efficiency Program						
	Funding Rate Impacts						

electric bills to support all existing and expanding programs, with 90% of those respondents willing to pay \$1 or more per month. Additional survey findings reveal that the majority of respondents participate in the Compact's energy efficiency programs because of their concern for the environment, more so than reducing usage and saving money. Comments included strong support for among other things: increasing help for low-income customers, benefitting the local workforce, making green building easier to learn and understand, increasing new construction incentives and providing greater assistance to non-profit and religious organizations.

### VI. PRAYER FOR RELIEF

45. Wherefore, the Compact respectfully requests that the Department approve this

proposed second amendment to its EEP.

Respectfully submitted, THE CAPE LIGHT COMPACT

By its attorney,

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Dated: November 26, 2008

T:\Clients\BCY\DSM\EEP Implementation\2009 EEP Filing\2009 EEP Proposal (FINAL).bcy.doc

#### Cape Light Compact Proforma 2009 Energy Efficiency Program Funding (1)\*

Line No. D	Description	F	orecast Jan-09	F	orecast Feb-09	F	orecast Mar-09	F	orecast Apr-09	F	Forecast May-09	F	Forecast Jun-09	F	orecast Jul-09	F	orecast Aug-09	F	orecast Sep-09	F	orecast Oct-09	Fc N	orecast lov-09	F	orecast Dec-09	Total	Notes
Funding Re	quired																										
1 Proposed Bu	udget	\$	838,970	\$	838,970	\$	838,970	\$	838,970	\$	838,970	\$	838,970	\$	838,970	\$	838,970	\$	838,970	\$	838,970	\$ 8	338,970	\$	838,970	\$ 10,067,635	
2 Short-term B	Borrowing Recovery	\$	25,359	\$	25,359	\$	25,359	\$	25,359	\$	25,359	\$	25,359	\$	25,359	\$	25,359	\$	25,359	\$	25,359	\$	25,359	\$	25,359	\$ 304,307	А
3 Total Fundin	g Required	\$	864,329	\$	864,329	\$	864,329	\$	864,329	\$	864,329	\$	864,329	\$	864,329	\$	864,329	\$	864,329	\$	864,329	\$ 8	364,329	\$	864,329	\$ 10,371,942	
Funding So 4 System Bene	urces efits Charge	\$	428,151	\$	428,151	\$	428,151	\$	428,151	\$	428,151	\$	428,151	\$	428,151	\$	428,151	\$	428,151	\$	428,151	\$	428,151	\$	428,151	\$ 5,137,818	В
5 Short-term B	Borrowing	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	
6 Carryover fro	om Previous Year	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	
7 ISO-NE FCM	I Funds (estimated)	\$	20,000	\$	20,000	\$	20,000	\$	20,000	\$	20,000	\$	20,000	\$	20,000	\$	20,000	\$	20,000	\$	20,000	\$	20,000	\$	20,000	\$ 240,000	
8 RGGI Funds	(estimated)	\$	-	\$	-	\$	-	\$	146,698	\$	-	\$	-	\$	-	\$	146,698	\$	-	\$	-	\$	-	\$	146,698	\$ 440,094	
9 Other Fundir	ng	\$	379,503	\$	379,503	\$	379,503	\$	379,503	\$	379,503	\$	379,503	\$	379,503	\$	379,503	\$	379,503	\$	379,503	\$ 3	379,503	\$	379,503	\$ 4,554,030	С
10 Total Fundin	g Sources	\$	827,654	\$	827,654	\$	827,654	\$	974,352	\$	827,654	\$	827,654	\$	827,654	\$	974,352	\$	827,654	\$	827,654	\$ 8	327,654	\$	974,352	\$ 10,371,942	

\*(1) This Proforma Energy Efficiency Program Funding schedule is proposed to be used to track actual budget expenditures and actual funds received with a periodic true-up performed of the Other Funding (Line 9) based on the coordination between NSTAR Electric Company and Cape Light Compact for such reconciling funding mechanism as approved by the Department.

Note A: Estimated recovery of prior year overspending through short-term borrowing at the government bond rate (D.P.U. 07-47-A, at 17 (2008))

Note B: System Benefits Charge Detail:

Forecasted MWh Sales Charge (mills/kWh)

2,055,127 2.5

Note C: Other Funding proposed to be collected through fully reconciling funding mechanism between NSTAR Electric Company and Cape Light Compact. Exhibit CLC-Z-1 presents estimated customer rate impacts.

#### Monthly Customer Bill Impact Line No. Description Reference Business Customer **Residential Customer** (avg. 500 kWh/mo) (avg. 3000 kWh/mo) **Existing Energy Conservation Charge** 1 Total System Benefits Charge (\$) Exhibit CLC-Z Ln. 4 \$ 5,137,818 2 Forecasted MWh Sales Exhibit CLC-Z Note B 2,055,127 1.25 \$ 7.50 3 System Benefits Charge (mills/kWh) 2.50 Exhibit CLC-Z Note B \$ Proposed Other Additional Funding 4 Total Other Funding Exhibit CLC-Z Ln. 9 \$ 4,554,030 5 Forecasted MWh Sales Ln. 2 (above) 2,055,127 6 Other Funding (mills/kWh) 1.11 \$ Ln. 4/Ln. 5 2.22 \$ 6.65 7 Customer Bill Impact (\$/month) with Existing and Proposed Other Additional Funding \$ 2.36 \$ 14.15

### Cape Light Compact 2009 Energy Efficiency Program Funding Rate Impacts



# The Cape Light Compact Energy Efficiency Plan 2007-2012

# 2009 EEP Update

Providing Comprehensive Energy Efficiency Services to Cape Cod and Martha's Vineyard Through Municipal Aggregation

November 26, 2008

# **Table of Contents**

1.	Introduction and Overview	1
2.	Program Goals	5
3.	Program Budgets	5
4.	Program Cost-Effectiveness	7
5.	Residential Non-Low Income Programs	
	5.1 Introduction and Overview	
	5.2 Residential New Construction	
	5.2.1 Residential New Construction: Major Renovation Pilot	
	5.3 ENERGY STAR <sup>®</sup> Heating, Ventilation, and Air Conditioning (HVAC)	
	5.4 Residential Conservation Services (MassSAVE)	
	5.5 ENERGY STAR® Lighting	
	5.6 ENERGY STAR <sup>®</sup> Consumer Products (including Appliances)	
	5.7 Education and Information	
	5.8 Research and Development and Pilots	
6.	Residential Low Income Programs	
	6.1 Introduction and Overview	
	6.2 Low-Income Residential New Construction	
	6.3 Retrofit	
7.	Commercial and Industrial Programs	46
	7.1 Introduction and Overview	
	7.2 C&I New Construction and Rehabilitation	
	7.3 Large Commercial and Industrial Retrofit	
	7.4 Small Commercial and Industrial Retrofit	
	7.5 Government Agencies	
	7.6 C&I Products and Services	
8.	Public Education and Marketing	61
	8.1 Cape Light Compact Schools Initiative	
	8.2 Local Events	
	8.3 Marketing Materials	
9.	Program Monitoring and Verification Plan	65
10.	Program Names and Acronyms Used	68
11.	. Appendices	

# Forward

Dear Residential and Business Electric Consumers of Cape Cod and Martha's Vineyard:

I am pleased to present, on behalf of the Cape Light Compact ("Compact"), this 2009 update to the Energy Efficiency Plan. Over many months, the Compact has worked with consumers, elected officials, state agencies and many energy efficiency experts to build on the success of and enhance our existing programs so the Compact may bring increased benefits to all customers within the Compact's territory.

Throughout 2008 electricity costs in our region have continued to increase and remain extremely volatile. However, the Compact continues to set new precedents and expand savings for consumers. Preliminary results for 2007 show that over 9,600 customers participated in the energy efficiency programs on Cape Cod and Martha's Vineyard, saving the equivalent of over 17,149 MWh of energy on an annual basis. With the increased funding approval received by the Massachusetts Department of Public Utilities on October 1, 2008, winter 2008-2009 is expected to demonstrate even higher participation and savings especially for residential heating customers dealing with high energy costs and the economic uncertainty throughout our region and nation.

The Compact's competitive power supply program now supplies power to approximately 160,000 customers. Customers being served under the Compact's basic service power supply program are supporting renewable energy through the Compact's purchase of renewable energy certificates (RECs). The Compact is the only competitive supplier of its size and mix that is complying with the Massachusetts Renewable Portfolio Standards (RPS) through the purchase of 100% of the RECs required under the RPS. The Compact also offers customers an opportunity to participate in a clean energy option called *Cape Light Compact Green*<sup>SM</sup>. By choosing to participate in this option, customers are supporting the development of cleaner renewable energy sources located on the Cape and Vineyard, and throughout New England.

Looking ahead to 2009 and beyond, the Compact intends to continue its efforts in delivering competitive power supply programs to Cape and Vineyard customers. The Compact, working in collaboration with Barnstable County, anticipates playing an instrumental role in assisting the towns with the implementation of the Green Communities Act, and looks forward to continuing to work with the towns on the Cape and Vineyard as they pursue and develop land-based wind turbines and other renewable energy systems. The Compact will also work with local environmental advocacy groups to ensure that the renewable energy produced through these facilities stays on the Cape and Vineyard as part of the Compact's power supply program.

Since July 2001, the Compact has been administering the energy efficiency program on the Cape and Vineyard. During this seven and a half year program, through December of 2008, the Compact will have returned approximately \$37 million, or 100% of the funds collected from electric ratepayers, in the form of energy efficiency services. The Compact will continue to deliver these essential energy efficiency services with minimal overhead and at the highest professional standards. Coupled with the Compact's power supply program, the Compact looks forward to continuing to serve consumers through reduced electric bills, lower kWh consumption and environmental benefits in 2009 and beyond.

Sincerely, Bob Mahoney Chairman, Cape Light Compact

# 1. Introduction and Overview

## The Cape Light Compact as Municipal Aggregator

The Massachusetts Electric Utility Restructuring Act of 1997 allows municipalities that aggregate electricity customers to: (1) formulate an Energy Efficiency Plan, (2) submit the plan to town meetings for approval, (3) submit the plan to the Massachusetts Department of Telecommunications and Energy (currently the Department of Public Utilities (the Department or DPU)) for review and certification; and (4) recover the energy efficiency funds raised from consumers for use in implementing local energy efficiency programs.

The Cape Light Compact (the Compact) was formed in 1997 following two years of study and votes of town meeting, boards of selectmen, and town council. It is organized through a formal intergovernmental agreement signed by the towns and Barnstable and Dukes counties. The Compact's Aggregation Plan was approved by the Department in DTE 00-47 (August 10, 2000).

The purpose of the Compact, among other things, is to advance the interests of consumers in a competitive electric supply market, including the promotion of energy efficiency. Each participating municipality has a representative on the Compact Governing Board, which sets policy and works with technical and legal support to put the Compact programs in place.

The Energy Efficiency Committee of the Compact Governing Board unanimously approved this Energy Efficiency Plan Update (EEP) on September 22, 2008. The Compact held a series of public informational meetings on November 10, 17, 20 and 24, 2008, to review and accept comments on the 2009 EEP; made available all public informational meeting documents on the website, <u>www.capelightcompact.org</u>; and conducted an online survey to seek customer feedback on the proposed 2009 EEP.

## **Overview of the Energy Efficiency Programs**

The programs included in this EEP are designed to advance consumer awareness and adoption of a wide variety of energy efficiency measures. Energy efficiency initiatives at the community level present opportunities for extensive local involvement, and help develop an energy efficiency ethic that can support market transformation beyond the implementation of individual technologies or practices, resulting in long-term, sustained energy efficiency savings.

The Compact's programs are designed to comply with the state's energy efficiency goals and policies. In general, the programs are structured according to customer types, as well as the types of electricity end-uses utilized by customers. In this way, the marketing and delivery of the programs can address the unique interests and market barriers of each customer type, as well as the unique opportunities and challenges of each end-use type. The programs are broadly divided into three areas: (a) residential customers, (b) lowincome customers, and (c) commercial and industrial customers (including municipal and government customers). In addition, there is a core public education and marketing program that underlies the delivery of each of the Compact's programs.

This 2009 Energy Efficiency Plan Update includes the following programs (*The sections that are bolded and italicized indicate program enhancements as compared to the 2008 Plan Update*):

- <u>Massachusetts New Homes with ENERGY STAR<sup>®</sup> Program</u>, which provides home buyers, home builders, and construction trade allies with technical assistance and financial incentives to increase the efficiency of homes that are newly built. *In 2009, the Compact proposes to address the efficiency of homes that are undergoing major renovation.*
- <u>The Residential Massachusetts Home Energy Services Program ("MassSAVE")</u>, which provides interested residential customers with a home energy audit and financial incentives for numerous electric and non-electric efficiency measures. *In* 2009 the Compact proposes to continue the higher incentives approved in October, 2008 and proposes expanding the solar domestic hot water offering to homes with 2 and 3 residents. Also, the Compact proposes introducing deep retrofits and combined heat and power as new offerings within this program.
- <u>The Residential ENERGY STAR Products and Services Program</u>, which seeks to increase the availability and use of efficient lighting and appliances. This program is used to implement the Northeast Energy Efficiency Partnerships Appliance and Lighting ("NEEP") initiative and other regional market transformation efforts. *In 2009, the Compact proposes offering Light Emitting Diode (LED) fixtures within the ENERGY STAR*® *Lighting program and consumer electronics measures such as TVs, set-top boxes, and Smart Strips as well as pool pumps within the ENERGY STAR Appliances program.*
- <u>Residential High Efficiency Central Air Conditioning Program ("COOL SMART"</u> with ENERGY STAR). Due to budget constraints, the Compact closed availability of this program in March 2006 and did not participate in 2007 or 2008. In 2009, the Compact proposes to participate in this program.
- <u>The Low-Income Single Family Program</u>, which provides low-income customers in single-family dwellings with assistance in purchasing and installing efficient lighting, appliances, and weatherization measures. *In 2009, the Compact proposes to spend a greater percentage of total budget on existing offerings. The Compact is also proposing to continue the higher incentives approved in October, 2008 for additional heating system incentives.*
- <u>The Low-Income Multi-Family Program</u>, which provides owners and managers of low-income multi-family dwellings with assistance in purchasing and installing efficient lighting, appliances and space heating measures. *In 2009, the Compact*

proposes to spend a greater percentage of total budget on existing offerings. The Compact is not proposing to add any additional offerings.

- <u>The Low-Income New Construction Program</u>, which provides low-income housing development agencies, weatherization assistance program ("WAP") providers, and residential construction trade allies with incentives to increase the home energy rating of new low-income housing. *In 2009, the Compact will continue to offer this service through the same vendor that delivers the Residential MA New Homes with ENERGY STAR Program. This new streamlined process will help the low-income vendor reduce overhead costs and ultimately put more funds into the installation of energy efficiency measures. The Residential New Homes with ENERGY STAR vendor will work with the local low-income vendor to insure that outreach and new construction leads are fully served.*
- <u>The Commercial and Industrial ("C&I") New Construction Program</u>, which provides technical assistance and financial incentives to increase the efficiency in the construction, renovation, and/or remodeling of all commercial, industrial, government and multi-family housing facilities. *In 2009, the Compact proposes to re-introduce Prescriptive Lighting incentives in order to align with statewide program administrator offerings*.
- <u>The Large Commercial and Industrial Retrofit Program</u>, which provides technical and financial assistance to medium and large commercial and industrial customers seeking to replace existing operating equipment and processes in their facilities with high-efficiency alternatives. *In 2009, the Compact proposes to re-introduce Prescriptive Lighting incentives in order to align with statewide program administrator offerings and increase the incentive cap on projects from \$75,000 to \$150,000 in order to address larger projects in a more efficient manner. The Compact also proposes to offer a demand response initiative to C&I customers who are able to commit to reduce energy consumption by a minimum of 100 kW of demand consistent with the ISO New England programs.*
- <u>The Small Commercial and Industrial Retrofit Program</u>, which provides technical assistance, financial incentives and direct installation to C&I customers whose peak demands historically have been defined at less than 100 kW to replace existing operating equipment and systems with high-efficiency equipment. *In 2009, the Compact proposes to re-introduce Prescriptive Lighting incentives in order to align with statewide program administrator offerings and increase the incentive cap on projects from \$75,000 to \$150,000 in order to address larger projects in a more efficient manner. The Compact also proposes to revise the definition of Small C&I Customers to include businesses whose electric demand is 300 kW or lower to encourage greater implementation of measures.*
- <u>The Government Agencies Program</u>, which provides technical and financial energy efficiency assistance to all government facilities, including municipal, state and federal facilities. *In 2009, consistent with the directives of the recently passed Green Communities Act, the Compact will continue to tailor this program to the*

special needs of Municipalities including: (i) assisting the Department of Energy Resources (DOER) in delivering technical assistance and measure installations funded through the Green Communities Act, and; (ii) supporting Towns' use of an Energy Information System, sponsored by DOER, for tracking energy consumption and formulating action plans leading to energy and climate savings goals. Also, the Compact proposes to offer to selected Towns, the 2008 pilot energy management training program established and funded by Barnstable County and currently being delivered to the Town of Falmouth.

• <u>The Commercial and Industrial Products and Services Program</u>, which seeks to increase the availability and use of more efficient motors, lighting designs, and HVAC systems. This program is used to implement NEEP and other regional market transformation initiatives. *In 2009, the Compact proposes to continue existing offerings. The Compact is not proposing to add any additional offerings.* 

In addition, the public education and marketing program is designed to utilize the extensive network and opportunities that the Compact has at the community and local government level. Public education and marketing support are designed to help overcome common barriers of energy efficiency awareness and facilitate participation in the Compact's programs. *In 2009, additional public education and marketing program funds will be used to support middle school programs that will maintain existing energy education programs provided at the elementary school level.* 

## A Multi-Year Energy Efficiency Plan

This Energy Efficiency Plan is a multi-year plan, running from 2007 through 2012, which is the remaining period of the energy efficiency system benefits charge in Massachusetts.

The purpose of filing a multi-year plan is to provide some long-term perspective to the Compact's energy efficiency activities. The programs described in this plan provide a blueprint for the next six years. During that time, the Compact may make some significant changes to certain programs, in response to market developments or other changes to the energy efficiency industry in Massachusetts. In these cases, the Compact will submit an updated EEP for comment by the DOER and for approval by the Department. In each year of this planning period, the Compact will file an updated budget and screening analysis, consistent with the analyses and schedules of the other energy efficiency Program Administrators in the state.

The sections below provide forecasts of budgets and program goals for the 2009 budget year within the multi-year study period. For budgets, the Compact assumes that the electricity sales in the member towns will remain flat over the timeframe of the multi-year plan. Consistent with state law, the budgets - over the multi-year plan - are allocated across the Residential, Low-Income, and Commercial & Industrial sectors generally in proportion to funding contribution by sector.

# 2. Program Goals

This section presents the Compact's program goals.

Appendix A1 shows the Compact's program goals for 2009. All the efficiency programs combined are expected to save roughly 20,600 MWh per year, leading to lifetime energy savings of roughly 208,100 MWh. The efficiency programs are also expected to save 3.7 MW in annual summer demand savings, leading to lifetime summer demand savings of 54.1 MW. The Compact's investment of roughly \$10.1 million in energy efficiency activities is expected to result in a total of \$40.6 million in net benefits to the electricity system and the customers on Cape Cod and Martha's Vineyard, accounting for energy and capacity demand reduction induced price effects.

Appendix A2 shows the Compact's program goals to date for the multi-year study period. Previous goals for 2010-2012 are not shown as these goals will change substantially due to recent funding increases per the Green Communities Act.

# 3. Program Budgets

This section presents the Compact's program budgets.

Appendix A3 shows the details of the Compact's 2009 efficiency budget by program. The program costs are broken out by planning and administration; marketing; financial incentives to customers; sales, technical assistance and training; and evaluation and market research. The total proposed budget is \$10,067,635, with 46% for the Residential sector, 15% for Low Income, and 39% for the Commercial & Industrial sector. 90% of the lifetime savings from this proposed budget will come from the expansion of existing efforts, with the balance from new measures as shown by Appendix C1.

- 1. The program planning and administration column includes the costs of the Compact's database management system, technical support consultants, legal support, a portion of the Compact in-house staff members compensation, and program-specific costs such as membership dues to the Low-Income Affordability Network (LEAN) and NEEP.
- 2. The marketing column includes all the costs incurred by the Compact to conduct its program marketing and education campaign. The education program is described in Chapter 8 of this EEP. This column does not include any of the marketing expenses incurred by the program vendors.
- 3. The customer incentives column includes the costs that are used to provide direct financial support to customers for the installation of efficiency measures.
- 4. The sales, technical assistance and training, vendor implementation and vendor quality control column includes the costs incurred by the program vendors to market, deliver, and provide technical assessments of efficiency measures. It also

includes the costs of the Compact's quality control initiatives and a portion of the costs of the Compact in-house staff members. The combination of (1) customer incentives and (2) sales, technical assistance and training, vendor implementation and vendor quality control budgets provides an indication of the portion of funds that are used directly to install energy efficiency measures, which represent nearly 90% of the total energy efficiency budget for 2009.)

5. The measurement and evaluation column includes costs associated with Compact specific and joint regional shared studies to review past performance of energy efficiency programs and services, confirm savings and other key assumptions for planning and reporting purposes and assess future market potential.

The Compact does not require shareholder performance incentives, thus these are not included in the budget.

The Massachusetts Restructuring Act requires that low-income customers receive at least 20% of the residential efficiency budget and in no event less than the amount funded by a charge of 0.25 mills/kWh, applied to sales to the customers on the low-income discount rate. The low-income customers (defined as within 60% of median income) in Compact member towns contributed roughly 2% of total electricity sales for all consumers on the Cape and Vineyard in 2007, whether served by the Compact's competitive supplier, NSTAR or some other supplier. Applying the full 2.5 mills/kWh efficiency charge to this portion of electricity sales results in low-income program funding that is higher than both of these two statutory funding "floors." The Compact has chosen to use this higher funding value as the floor for the low-income sector.

Appendix A4 shows the Compact's program budgets to date for the multi-year study period. Included in this summary are forecasts of funding from: ratepayer system benefits charge, the ISO New England Forward Capacity Market, funds allocated to the Compact through the auction of CO2 allowances traded under the Regional Greenhouse Gas Initiative, anticipated short-term borrowing and additional funding requested from the DPU.

# 4. Program Cost-Effectiveness

This section presents the costs and benefits of the Compact's efficiency programs. The costs and benefits are calculated according to the total resource cost (TRC) test, as required by the Department in DTE 98-100. The TRC test requires that the cost of each efficiency measure include the cost to the Compact, the cost to the participating customer, and any other costs associated with installing the measure. The TRC test also requires that the program benefits include certain non-electric benefits, such as non-electric resource savings (e.g., oil, gas, water), customer benefits (e.g. reduced operation and maintenance costs), and several societal benefits associated with low-income programs. Additionally, as of 2008, all Massachusetts program administrators jointly agreed to include the societal benefit of energy and capacity demand reduction induced price effects (DRIPE) in the TRC test results. Appendix A5 shows the details of the costs and benefits of the Compact's 2009 efficiency programs. The Compact's energy efficiency programs combined are estimated to have a benefit-cost ratio of roughly 4.15.

The direct economic benefits of the efficiency programs are substantial. With an investment of roughly \$13 million (from both the Compact's funds and the participants' contributions), these programs will result in over \$54 million in reduced energy costs and other benefits for Cape Cod and Martha's Vineyard, including the impact of energy and capacity demand reduction induced price effects. This means that the *net* benefits of these programs will be nearly \$41 million. No other investment in electricity resources and infrastructure offers this type of return for the investment.

In addition, these results do not account for the indirect economic and employment benefits that occur when lower electric bills result in increased disposable income and improved productivity for businesses and industries.

Furthermore, all of the Compact's energy efficiency programs result in significant environmental benefits that are not accounted for in the cost-benefit results above. By helping to avoid the construction and operation of power plants within New England, these programs can help mitigate some of the gravest environmental threats facing our society today, including climate change, ground-level ozone, acid rain, and damages from fine particulate matter, mercury and other air toxics. Appendix A7 presents an estimate of the key air emissions that are avoided by the Compact's energy efficiency programs. Appendix A8 presents an estimate of the program's electricity and other fuel savings by end use.

# 5. Residential Non-Low Income Programs

# 5.1 Introduction and Overview

There were roughly 174,500 residential electricity customers in the Compact's member towns in 2007, and they consumed approximately 1,110 GWh of electricity throughout the year. Residential customers represent 87 percent of all Compact electricity customers, but their electricity consumption represents only 54 percent of total electricity consumption, due to the lower amount of electricity consumed per customer.

	Number of Customers	Percent of Class	Percent of Total	Sales (MWh)	Percent of Class	Percent of Total
Low-Income	6,023	3.5%	2.1%	42,612	3.8%	2.1%
Non-Low-Income	168,490	96.5%	97.9%	1,067,748	96.2%	97.9%
Electric Heat	19,481	11.2%	9.7%	193,187	17.4%	9.4%
Non Electric Heat	155,031	88.8%	80.3%	917,172	82.6%	80.6%
Total Residential	174,512	100.0%	86.8%	1,110,359	100.0%	54.0%
Total Compact	200,955	na	100%	2,055,127	na	100%

 Table 5.1 Residential Customers and Sales in 2007

The Compact's residential energy efficiency programs are designed to address all of the main residential electric end-uses, including space heating, water heating, refrigeration, lighting and major appliances. They are also structured to be available to all of the various customer types, including low-income, new customers, high-use customers, and moderate-use customers. In addition, the programs are linked together, so that customers participating in one residential program will be informed of, and encouraged to participate in, other residential programs.

# 5.2 Residential New Construction

## **Primary Objective**

To capture lost opportunities and encourage the construction of energy-efficient homes.

## Initially Offered

1998

## Performance Goals

- 404 MWh estimated Net Annual savings
- 5,975 MWh estimated Lifetime savings
- 1,376 MW estimated Lifetime savings

## 150 estimated no. of participants

### Budget

Total planned expenditures all categories: \$1,028,789 (including homes for Green Affordable Homes grant with the Massachusetts Renewable Energy Trust and the Major Renovations Pilot Program)

### Joint vs. Sponsor-Specific Offering

Joint

## **Program Design**

The sponsors continue their strong commitment to the comprehensive whole-house approach of the Massachusetts New Homes with ENERGY STAR<sup>®</sup> Program.

Builders can choose one of two ways to participate: ENERGY STAR certification or CODE Plus/energy-efficiency measure upgrades. Both require direct installation of ENERGY STAR-qualified compact fluorescent light (CFL) bulbs in appropriate sockets, on-site training, and a final verification inspection.

## **ENERGY STAR certification:** This path requires:

- A HERS Index of 85 or less
- Meeting envelope leakage and duct leakage standards
- Completing a thermal bypass inspection list
- Meeting the U.S. Environmental Protection Agency's ENERGY STAR homes specifications (see www.energystar.gov/index.cfm

?c=new homes.hm index)

■ CODE Plus/energy-efficiency measure upgrades: This path offers a prescriptive package to builders, developers, architects, and homeowners who are interested in building energy-efficient housing but not necessarily in achieving ENERGY STAR certification. The features of this path:

• No plan review or energy modeling

• Allows builder to choose from a list of energy-efficient or ENERGY STAR measures Reimbursement of a portion of the cost of installed energy-efficiency measures

### Target Market

- Builders
- Architects
- Designers
- Trade allies
- HERS raters
- Home buyers

Others involved in the construction of single- and multifamily home

## Marketing Approach

Marketing strategies include direct builder outreach; information on the website (<u>www.massenergystarhomes.com</u>); and meeting presentations, home and trade show exhibits, participation in builders' conferences, and other public relations activities. Energy-efficiency outreach and training to educate builders, architects, HERS raters, real estate agents, building code officials, and industry players also are planned. In addition, individual program sponsors will use targeted marketing as needed to meet program participation and spending goals.

## **Target End Uses**

- Energy-efficient building shell measures
- Proper duct and air sealing techniques
- Heating, ventilation, and air conditioning (HVAC) quality installation
- Energy-efficient lighting
- Mechanical ventilation

### **Recommended Technologies**

- ENERGY STAR-qualified heating and cooling systems, lighting, appliances, and windows
- Increased levels of insulation
- Improved construction techniques to minimize air leakage, duct leakage, infiltration, and heat loss
- Improved HVAC installation techniques
- Incorporation of renewable-energy technologies in partnership with the Massachusetts Renewable Energy Trust

### **Financial Incentives**

Incentive levels may be adjusted to respond to market conditions. Current levels are shown in the table on the next page. In addition, free ENERGY STAR–qualified CFL products are distributed to each home.

Participating homes are also eligible for the heating system, water heater, and thermostat rebates as detailed in Section 5.4 Residential Conservation Services (MassSAVE).
Package	Requirements	Single-Family Incentive	Multifamily Incentive
CODE Plus	6 ACH CFM 50, 8% duct leakage	\$325	\$225
ENERGY STAR I	HERS Index of 85 to 66	\$750	\$650
ENERGY STAR II	HERS Index of 65 or less	\$1,250	\$1,150

# **Residential New Construction Incentives, 2009**

#### **Delivery Mechanism**

The program is administered by the program administrator in each service territory and coordinated regionally through the Joint Management Committee (JMC). The JMC will continue the transition to a market-based network of trained contractors who offer energy-efficiency and rating services to homebuilders for a fee. In 2009 this function will continue to be overseen by the program vendor; there are plans to transition to the market-based model in 2010.

The program will continue to train and support raters in meeting program objectives.

#### Joint Program Administrator Enhancements Planned for 2009

The JMC will introduce a third ENERGY STAR performance tier that encourages additional savings per home.

The program will require CFL bulb installation in a minimum of 50% of all appropriate sockets in each home.

#### Sponsor-Specific Elements

The Cape Light Compact will be offering HVAC program elements in 2009 as budgets allow and service territory demands.

Although there are few high rise multi-family new construction buildings in the Cape Light Compact territory, the Compact will encourage efficiency in this category, where applicable.

# 5.2.1 Residential New Construction: Major Renovation Pilot

# **Primary Objective**

To capture lost opportunities and encourage energy-efficient additions and renovations to existing homes.

# Initially Offered

2009

# Performance Goals

MWh and MW savings included in a. Residential New Construction (above) 25 estimated no. of participants

# Budget

Total planned expenditures all categories: included in a. Residential New Construction (above)

# Joint vs. Sponsor-Specific Offering

Joint

# Program Design

Participating builders can take advantage of incentives to upgrade the thermal performance of home additions and major renovations for homes that do not meet the criteria under the ENERGY STAR<sup>®</sup> homes program *and* where the additions and/or renovations affect at least 500 square feet of the existing home. This major renovation pilot includes preconstruction plans review, on-site training, a final verification inspection, and direct installation of qualified ENERGY STAR compact fluorescent light bulbs in all appropriate sockets.

This pilot project continues the strong commitment to the comprehensive whole-house approach of the ENERGY STAR homes program and fills the gap between it and the Residential Conservation Services (RCS)/MassSAVE Program. The goal: that all homes in Massachusetts undergoing major renovation be made as efficient as possible. This goal has become more important as the market for new homes has softened and construction activity through additions and renovations, which is a growing market segment.

Experience tells us that the HERS rating method can be administratively burdensome on existing homes, so the program's incentives are intended to be prescriptive in nature. In addition, HERS raters will implement the pilot project in the field and utilize existing tools from the ENERGY STAR Homes program (e.g., the thermal bypass checklist) to confirm overall building performance.

#### Target Market

- Builders
- Architects
- Designers
- Trade allies
- Home buyers

Others involved in the addition to and renovation of existing single-family homes or three-story or fewer multifamily buildings

# **Marketing Approach**

Marketing strategies include direct builder outreach; website information; meeting presentations, home and trade show exhibits, participation in builders' conferences, and other public relations activities. Energy-efficiency outreach and training to educate builders, architects, homeowners and industry players also are planned. In addition, individual program sponsors will use targeted marketing as needed to meet program participation and spending goals.

# Target End Uses

- Energy-efficient building shell measures
- Proper duct and air sealing techniques
- HVAC quality installation
- Mechanical ventilation to both the new-construction components and the existing home

#### **Recommended Technologies**

- ENERGY STAR heating and cooling systems, lighting, appliances, and windows
- Increased levels of insulation
- Improved construction techniques to minimize air leakage, duct leakage, infiltration, and heat loss
- Improved HVAC installation techniques
- In partnership with the Massachusetts Technology Collaborative, renewable technologies including solar water heating and photovoltaics where applicable.

#### **Financial Incentives**

All participants will be eligible to receive the incentives available under the RCS/MassSAVE Program, including all electric incentives (see section 2a below). For example, existing homes would be treated as they would through the RCS/MassSAVE Program (air sealing, insulation, electric and heating measures). And new additions would be constructed to the national builder option package (BOP) and have a total cap of no more than the maximum of the RCS/MassSAVE incentives, currently \$2,000.

Incentive levels may be adjusted to respond to market conditions.

#### **Delivery Mechanism**

The plan is to include this pilot as a coordinated offering between the Residential Conservation Services (RCS)/MassSAVE Program and the Massachusetts New Homes with ENERGY STAR Program, which is administered by the program administrator in each service territory and coordinated regionally through the Joint Management Committee.

# Joint Program Administrator Enhancements Planned for 2009

N/A

# Sponsor-Specific Elements

N/A

# 5.3 ENERGY STAR<sup>®</sup> Heating, Ventilation, and Air Conditioning (HVAC)

# Primary Objective

To raise residential consumer awareness of the benefits of purchasing and properly installing high-efficiency cooling equipment and systems, and to increase the market share of ENERGY STAR–qualified warm-air furnaces equipped with an electronically commutated motor (ECM) or equivalent advanced furnace fan system and cooling equipment for existing systems to reduce duct leakage and ensure proper operation through digital tune-ups.

# Initially Offered

The sponsors introduced their rebate program for ENERGY STAR–labeled central air conditioning units, which is now called COOL SMART, on April 1, 2004. The heating component of the program, a joint electric and gas offering, started in 2003.

# Performance Goals

- 119 MWh estimated New Annual savings
- 1,895 MWh estimated Lifetime savings
- 2,485 MW estimated Lifetime savings
- 725 estimated no. of participants

# Budget

Total planned expenditures all categories: \$347,753

# Joint vs. Sponsor-Specific Offering

In 2009, the COOL SMART Program will be a joint offering from NSTAR and National Grid. (COOL SMART is also available in Rhode Island, where it is delivered by the vendor that delivers the program in Massachusetts.)

Western Massachusetts Electric, Unitil, and Cape Light Compact did not offer the program in 2007 or 2008. However, all three will be offering a number of program elements in 2009 as budgets allow and service territory demands.

# Program Design

The ENERGY STAR Heating, Ventilation, and Air Conditioning Program is a market transformation initiative designed to increase consumer awareness and the market share of ENERGY STAR–labeled furnaces, central air conditioning units, and air source heat pumps, and to promote quality cooling installations by HVAC technicians and contractors.

By offering training and incentives for digital checkups of existing equipment during the course of a repair or tune-up, the COOL SMART Program reduces barriers to customer and contractor participation. Seasonal HVAC service demand issues, lack of customer awareness of what makes for quality air conditioning operation, and seasonal temperature limitations, combined with limited time to complete paper-based incentive applications, present some of the greatest barriers to contractors' offering and completing third-party verification testing. The program sponsors continue to explore new strategies to minimize these market barriers.

The COOL SMART Program also promotes North American Technician Excellence (NATE) in HVAC contractor and customer educational materials. This strategy is designed to promote the value of NATE certification in the HVAC community and support best installation practices, education, and training for HVAC technicians and contractors.

# Target Market

There are several target markets:

- New construction (new systems)
- New systems in existing homes (new systems)
- Replacement systems in existing homes (new equipment/old systems)
- Improvements in operational systems in existing homes (new equipment/old systems)

The program also targets the following market actors:

- Residential customers in the market to purchase HVAC equipment
- HVAC technicians responsible for installing and servicing HVAC equipment
- HVAC contractors
- Suppliers of HVAC equipment
- Manufacturers and distributors of HVAC equipment
- New-home builders and remodeling contractors
- Big-Box retailers

# Marketing Approach

Program marketing is designed to promote the purchase and proper installation of ENERGY STAR residential central air conditioning and heat pump systems at multiple levels. It includes:

• Full-time circuit rider visits and calls to distributors and contractors. The circuit rider also provides technical outreach services to follow up on training events in the field and by phone with recently trained technicians.

• Development of cooperative promotions with the HVAC industry

• Sponsorship of contractor competitions and awards programs for rebates and QIV services, and an annual recognition celebration for contractors in a venue that helps recruit more contractors

- Periodic COOL Talk meetings with QIV-listed HVAC contractors and distributors
- Postcard and email mailings to HVAC distributors and contractors
- Bill inserts to residential customers
- Information on the COOL SMART website (<u>www.mycoolsmart.com/index.html</u>) for customers, contractors, and distributors
- Customer certificates when a quality installation is performed
- Print and media advertising targeting consumers, contractors, and distributors
- Participation at HVAC trade shows
- Writing or collaborating on HVAC trade publication articles

In addition, program sponsors will work with the following industry partners to promote best installation practices, awareness, education, and training for HVAC contractors:

- ENERGY STAR HVAC Quality Installation Program team and Best Practices Working Group
- Consortium for Energy Efficiency (CEE)
- NATE
- Air Conditioning Contractors of America (ACCA)
- Northeast Energy Efficiency Partnerships (NEEP)

# Target End Uses

Residential central cooling and heating equipment

# **Recommended Technologies**

The primary recommended cooling technologies are high-efficiency residential central air conditioner compressors, including air source heat pump condensers, that meet or exceed the 2009 ENERGY STAR minimum standard seasonal energy efficiency ratio (SEER) of 14.5, energy efficiency ratio (EER) of 12, and heating season performance factor (HSPF) of 8.2 (for heat pumps only).

The recommended minimum heating technology is a natural gas furnace with an annual fuel utilization efficiency (AFUE) of 92% or greater, equipped with an advanced ECM or equivalent energy-saving furnace fan (blower) motor.

The electric efficiency program does not address boilers.

# **Financial Incentives**

The Cape Light Compact did not offer the program in 2008 and has no existing financial incentives. Please refer to enhancements proposed in 2009 for proposed incentives.

#### **Delivery Mechanism**

The program is administered by the program administrator in each service territory. Delivery is through a common vendor selected through a common request for proposals. Whenever possible, there is coordination with related gas utility initiatives and energy-efficiency service providers. In 2007 and 2008, the program developed cooperative promotions with several HVAC market actors.

Program initiatives are piggybacked onto the residential new construction and RCS/MassSAVE programs:

Participating residential new construction program builders and their HVAC contractors are referred to the COOL SMART Program for training and QIV. MassSAVE participants are referred to COOL SMART for HVAC measures using COOL SMART literature, which is part of the standard MassSAVE information package.

Quality control/follow-up inspections are performed by independent inspectors on approximately 10% of installations to verify equipment installation and performance.

The program continues to use equipment distributors to process rebates, sell highefficiency and QIV-related technology, and to provide indoor training labs for HVAC contractors.

# Joint Program Administrator Enhancements Planned for 2009

- ENERGY STAR QIV for replacement systems with an Environmental Protection Agency (EPA) certificate and \$100 customer incentive through participating contractors. The EPA requires sizing, duct sealing, and airflow and charge adjustments to specific American National Standards Institute/Air Conditioning Contractors of America (ACCA) standards.
  - The duct sealing requirement will be funded through the current contractor incentive of \$1 per CFM of duct leakage reduction.
  - Contractors will receive a \$250 incentive for verification and advanced airflow measurement instead of a standard QIV incentive.
  - If duct modifications (i.e., adding return ducts and/or turning vanes) are needed to meet airflow requirements, contractors may receive an additional \$400 incentive.
- Expanded negotiated cooperative promotion opportunities in cooperation with NEEP and other interested program administrators
- A standard early-replacement component that requires an existing SEER of 8 to 10
- Joint duct sealing promotions and training in cooperation with gas utilities
- Replacement of the minimum standard for eligible equipment with the new ENERGY STAR standards described above for the \$300 incentive as of May 1, 2009, if appropriate EER data are available
- A \$400 customer incentive for higher CEE-tier equipment (SEER of 15, EER of 12.5 or higher)
- A \$250 customer incentive for a SEER of 14.5 or greater, EER of 11.5 or greater, and HSPF of 8.2 for ENERGY STAR-rated split ductless air-to-air heat pump systems with inverter technology

• A \$200 customer incentive and a \$100 contractor incentive when sizing is completed for 2009 ENERGY STAR or CEE-tier equipment

In addition, we plan to investigate replacing standard permanent split capacitor motors with brushless furnace fan motors in central air conditioning systems and to develop an appropriate incentive. We also plan to investigate the opportunity to replace fixed orifice coils with TXV (thermostatic expansion valve) coils at the time of a digital checkup and to develop an appropriate incentive.

# Sponsor-Specific Elements

The Compact will be offering HVAC program elements in 2009 as budgets allow and service territory demands

# 5.4 Residential Conservation Services (MassSAVE)

# Primary Objective

To educate residential customers about saving energy in their homes and to help them identify and install cost-effective upgrades.

# Initially Offered

1980

# Performance Goals

- 2,072 MWh estimated Net Annual savings
- 34,282 MWh estimated Lifetime savings
- 24,530 MW estimated Lifetime savings
- 2,500 estimated no. of participants

# Budget

Total planned expenditures all categories: \$2,360,060

# Joint vs. Sponsor-Specific Offering

Joint

# Program Design

The Residential Conservation Services (RCS)/MassSAVE Program provides "one-stop shopping" for customers who are interested in making energy-efficient improvements to their homes. The program helps those customers identify and install all the equipment needed to control their future energy costs.

Two tiers of service are available. All customers who call the MassSAVE toll-free number to learn about the program are asked several questions to determine their need for and general interest in making energy-efficient improvements. Customers who are not ready to invest in energy-efficient upgrades receive Tier One service. Customers who are ready to make energy-efficient upgrades are eligible for Tier Two service. (Low-income customers are referred to appropriate low-income programs.)

• Tier One service includes general information and education about energy efficiency. It also attempts to identify customers' specific needs and direct them to other energy-efficiency programs and/or sponsor resources as appropriate.

• Tier Two service includes an on-site home energy assessment (HEA) to identify and recommend specific energy-efficient upgrades. Auditors also explain the contractor services that will be needed to install recommended measures and describe the financial incentives available for installation. The program offers an incentive of 75% of the installed cost of recommended measures, up to \$2,000. In addition, incentives for high-efficiency gas heating and water heating systems are available through GasNetworks. The HEA also offers instant savings: With the customer's permission, compact fluorescent light bulbs are installed for free in all appropriate locations, as are low-flow shower heads, faucet aerators, and weather stripping.

The 2008 RCS/MassSAVE Program reintroduced and delivered the legislated statewide HEAT Loan Pilot Program as a resource to help make energy-saving improvements more affordable to program participants. HEAT Loan will continue in 2009 until all funds are expended.

All customers who have an HEA and install qualified recommended measures are eligible to apply for participation in the statewide HEAT Loan Pilot Program. The program provides customers with no-interest or low-interest loans (up to 3%) for the installation of eligible energy-efficient improvements in their homes. Loans up to \$15,000 with terms up to seven years are available. Eligible energy-efficient improvements include the following:

- Attic, wall, and basement insulation
- Air sealing
- High-efficiency heating systems (after contractors submit appropriate sizing calculations)
- High-efficiency domestic hot water (DHW) systems
- Solar domestic hot water (DHW) systems
- ENERGY STAR<sup>®</sup> qualified windows
- ENERGY STAR qualified thermostats
- ENERGY STAR qualified water heaters
- Other renewable technologies on a pre-approved basis

#### Target Market

All non-low income residential customers living in single-family houses or one- to fourunit multifamily buildings, regardless of heating fuel, who are committed to making their homes more energy efficient

#### Marketing Approach

• Statewide MassSAVE toll-free number

- MassSAVE website
- Annual bill inserts
- Radio and print advertising

All marketing approaches include the statewide MassSAVE toll-free number for interested customers to call for more information.

Individual sponsors may conduct additional marketing and may ramp their marketing up or down as needed to meet participation and budget goals.

# Target End Uses

The program targets any cost-effective energy-saving improvements in the house shell and hot water/heating systems, and energy-efficient lighting.

#### **Recommended Technologies**

Recommended technologies include air sealing, duct sealing, insulation, refrigerators, thermostats, ventilation, ENERGY STAR windows, solar DHW systems, and heating/cooling systems. The program also provides general information about energy efficiency and solar DHW systems to consumers on request. Other preapproved measures may include heating system controls, superinsulation, combined heat and power (CHP) technologies, solar DHW systems, and opportunities for piloting "deep retrofit" enhancements of major renovation projects. The program refers customers with central air conditioning to the COOL SMART Program for digital checkups and incentives and to quality installation verification for replacement systems.

#### **Financial Incentives**

The incentive for recommended major building shell and renewable measures is 75% of the cost of installing those measures to a maximum of \$2,000.

In addition, individual program sponsors may offer the following incentives at the agreed-on levels:

- ENERGY STAR refrigerator replacement (eligibility determined through HEA): \$150
- High-efficiency furnace (annual fuel utilization efficiency gas 92%, oil 83%): gas rebate \$100; oil/propane rebate \$100 (also piggybacked on Residential –ENERGY STAR HVAC program)
- High-efficiency furnace with electronically commutated motor (AFUE gas 92%, oil 83%): gas rebate \$400; oil/propane rebate \$400
- High-efficiency steam boiler (AFUE 82%): gas rebate \$200; oil/propane rebate \$200
- High-efficiency hot water boiler (AFUE 85%): gas rebate \$500; oil/propane rebate \$500
- High-efficiency hot water boilers (AFUE 90%): gas rebate \$1,000
- High-efficiency indirect water heater (attached to natural gas boiler): gas rebate \$300; oil/propane (attached to boiler) \$300

• High-efficiency natural gas or propane on-demand tankless water heater (energy factor of 0.82 or greater with electronic ignition): rebate \$300. For whole-house or on-demand water heaters, the unit must meet ENERGY STAR specifications.

- ENERGY STAR residential water heater: gas rebate varies by product
- Weather-responsive heating controls: \$100 rebate
- ENERGY STAR qualified thermostats (2 maximum): \$25 rebate
- ENERGY STAR qualified windows (including skylights): \$10 rebate, up to \$200 cap per year.
- ENERGY STAR qualified sliders: \$30 rebate, included in the \$200 cap above.
- Micro-Combined Heat and Power (CHP) systems
- Solar DHW system added to an electric DHW system: \$1,250 for family of five;

\$1,500 for family of six. The addition of rebates for families of two to four is being reviewed. To be eligible for a rebate, the system's solar fraction must be equal to or greater than 0.5, as per ENERGY STAR standards taking effect January 1, 2009.

Customers also are eligible for all COOL SMART incentives (see section 1c).

# **Delivery Mechanism**

The program is administered within each service territory by its program administrator and is coordinated statewide through the RCS Network, a coalition of RCS/MassSAVE program administrators and program vendors working together with the Massachusetts Department of Energy Resources. The program is delivered by independent contractors selected through a competitive bidding process.

Work completed by MassSAVE energy service providers and their subcontractors must meet standards set by the Building Performance Institute or similar standards set by the individual sponsors. These standards require a systematic approach to home improvement that addresses all aspects of building systems.

RCS Network members apply a "best practices" approach and work together to make quality control an integral part of the RCS/MassSAVE Program.

# Joint Program Administrator Enhancements Planned for 2009

Better linkages and improved coordination will be implemented among MassSAVE, myenergystar.com, and lighting purchasing websites. Also planned are the following:

- Higher overall program incentives
- Solar DHW systems
- Boiler reset controls

# Sponsor-Specific Elements

Cape Light Compact will offer, on a pilot basis, customer smart energy monitoring and demand reduction management programs through their RCS/MassSAVE delivery vendor to interested customers, subject to available funding (see R&D and Pilots b. Demand Reduction Technology Pilot).

# 5.5 ENERGY STAR® Lighting

# **Primary Objective**

To increase consumer awareness of the importance and benefits of purchasing ENERGY STAR–qualified lighting products and expand the availability, consumer acceptance, and use of high-quality energy-efficient hardwired, screw-based, and portable lighting technologies.

# Initially Offered

1998

# Performance Goals

- 10,710 MWh estimated New Annual savings
- 76,019 MWh estimated Lifetime savings
- 4,984 MW estimated Lifetime savings
- >160,000 estimated no. of products

# Budget

Total planned expenditures all categories: \$633,615

# Joint vs. Sponsor-Specific Offering

Joint

# Program Design

The residential ENERGY STAR Lighting Program includes interaction with all the key market players in the residential lighting market, from manufacturers to retail sales staff, with the emphasis on involving upstream market players to leverage program resources. The ongoing collection of data on overall market conditions, product availability, market share, and pricing keeps program sponsors up to date on changes in the residential lighting market. That awareness, in turn, enables sponsors to adapt program offerings as needed to maintain momentum in increasing the market share of energy-efficient lighting products. The program also supports the Program for the Evaluation and Analysis of Residential Lighting (PEARL), which was created to independently verify ENERGY STAR standards on randomly tested lighting products. PEARL will continue until the U.S. Department of Energy (DOE) implements its testing components, a process slated to be completed in 2009.

The ENERGY STAR Lighting Program includes several components designed to educate consumers about the benefits of ENERGY STAR–qualified lighting products and to make these products more affordable:

• The Internet/mail-order sales channel offers education on energy-efficient lighting, rebates on a wide selection of ENERGY STAR-qualified lighting products, introductions to new products that may not be available at most retailers, and access to a variety of the sometimes-hard-to-find pin-based replacement bulbs for hardwired

compact fluorescent (CF) fixtures. Internet sales account for a high percentage of this component's sales. Recognizing the importance of Internet sales, the sponsors are working to improve the Internet/mail-order website as an educational tool for consumers.

• The program provides consumer education through the Internet/ mail-order sales channel and the www.myenergystar.com website, point-ofpurchase displays in retail stores, and training retail sales staff to provide accurate information to customers and help them select the right products for their specific needs.

In 2009 the sponsors will continue to support mercury awareness efforts and promote a CFL bulb recycling infrastructure for consumers. The sponsors also are looking for innovative education and implementation strategies to support the recycling efforts. For example, they may pay higher incentives for cooperative recycling programs, and they are willing to negotiate with partners on incentive levels, cooperative advertising, and strategies to encourage recycling through retail outlets, mail-in programs, and consumer education and awareness activities.

A number of incentives make products more affordable for consumers. Negotiated cooperative promotions (NCPs), for example, include manufacturer and retailer markdowns and buydowns. Sponsors offer higher financial incentives for the markdown model than for the buydown model because product sales data and payments for markdowns are based on actual sales; buydown data and payments are based primarily on shipping and receiving documentation. NCPs continue to account for the large majority of products moved through the program — 97% in 2007. Another type of incentive, instant-rebate coupons, allows retail outlets that are not able or willing to share sales data to participate in the program.

ENERGY STAR/DOE solid-state fixtures also will be eligible for program incentives on a preapproved basis.

# Target Market

All residential customers

# Marketing Approach

Multiple marketing approaches are being used to increase general awareness among consumers of the benefits of using ENERGY STAR lighting products, to make it easy for consumers to identify qualifying products in stores, and to provide access to new products. In addition to direct advertising targeting consumers, these approaches include supporting national ENERGY STAR marketing campaigns, like the DOE and Environmental Protection Agency's Change the World, Start with ENERGY STAR campaign, and working with industry partners at all levels of the retail supply chain.

Specific marketing activities targeting consumers include the following:

• Retail marketing and point-of-purchase displays

- Print and radio advertising
- School/educational fundraising outreach efforts
- The Internet/mail-order sales channel
- The website (<u>www.myenergystar.com</u>)
- Public relations

Work with industry partners at all levels of the retail supply chain includes the following:

- Leveraging marketing budgets through cooperative promotions with retailers, distributors, and manufacturers, including marketing promotions, cooperative advertising, and special events at retail stores and in communities
- Training and supporting retail sales staffs so they are able to tell consumers about the benefits of using ENERGY STAR-qualified lighting products and to help them choose the best products to meet their particular needs.

# Target End Uses

Residential lighting

# Recommended Technologies

Recommended ENERGY STAR–qualified lighting products include CFL bulbs, fluorescent and solid-state lighting (SSL) fixtures (exterior, interior, torchières, ceiling fans with light kits, and ventilation fans with light kits), and fluorescent floor and table lamps.

#### **Financial Incentives**

Rebate and incentive amounts and structure may be adjusted if market conditions change. Instant rebates currently available in retail stores or through the mail-order catalog include the following:

- \$2 for CFL bulbs (single bulbs to three packs)
- \$10 for exterior fixtures
- \$15 for interior fixtures (including ENERGY STAR ventilation and ceiling fans with light kits)
- \$4 on multipacks of four and five bulbs
- \$6 on multipacks of six or more bulbs

NCPs include manufacturer and retailer markdown and buydown promotions. The maximum reimbursements are shown in the table below.

# **ENERGY STAR Lighting Maximum Incentives**

Product	Buydown <sup>1</sup>	Markdown	
Standard CFL bulbs, $\leq 16$ watts	\$1.20 per package	\$1.40 per package	
Standard CFL bulbs, 16–23 watts	\$1.50 per package	\$1.75 per package	
Standard CFL bulbs, > 23 watts	\$1.85 per package	\$2.00 per package	
Standard CFL bulb multipacks (maximum 8 per package), $\leq 23$ watts	\$0.60 per bulb	\$75 per bulb	
Standard CFL bulb multipacks (maximum 8 per package), > 23 watts	\$1.40 per bulb	\$1.60 per bulb	
Specialty bulbs (including reflector, dimmable, three-way, and flood preapproved product) <sup>2</sup>	\$3.50 per bulb	\$3.85 per bulb	
Specialty bulb (including reflector, dimmable, three-way, and flood preapproved product) <sup>2</sup> multipacks (maximum 8 per package)	\$2.10 per bulb	\$2.45 per bulb	
Fixtures	\$12.00 per unit	\$15.00 per unit	
Additional incentives for low-mercury product (less than or equal to 1.5 mg)	\$0.20 per unit \$0.30 per unit		
Solid State Lighting (or LED product qualified under the Department of Energy's Solid State Lighting specification 1.0	TBD	TBD	

Effective January 1, 2009, through December 31, 2009

1. Product/measure lifetime may be used to determine reimbursement levels.

2. Preapproval of covered products must be received before a proposal is submitted.

3. Sponsors will encourage NCPs that promote third-party tested and approved reflector fluorescent bulbs.

#### **Delivery Mechanism**

Contractors selected through a competitive bidding process will be performing program services in 2009:

A manufacturer/retailer outreach contractor will recruit and train retailers to participate in the program; place point-of-purchase materials and instant-rebate coupons in participating retail stores; collect in-store shelf space and pricing data; conduct product labeling and special promotions; oversee the NCP process; act as a liaison for program sponsors, manufacturers, and retailers; and provide documentation to the sponsors for program tracking and evaluation purposes.

• A marketing contractor will develop messaging and produce most of the educational materials as well as all point-of-purchase materials, assist with public relations, and coordinate regional messaging with national campaigns. This contractor also will maintain and update the www.myenergystar.com website.

• A rebate fulfillment contractor will collect data and payment requests from manufacturers, retailers, and consumers; process instant-rebate coupons and NCPs; and provide documentation to the sponsors for program tracking and evaluation purposes.

• An Internet/mail-order sales channel contractor will develop and distribute the catalog; purchase and stock products offered through the catalog and the www.estarlights.com website; staff a toll-free line for customers requesting a catalog or purchasing products from the catalog or the www.estarlights.com website; process catalog and website purchases; and provide documentation to the sponsors for program tracking and evaluation purposes.

Customer incentives are delivered via rebate or discount pricing through one of four mechanisms:

- The Internet/mail-order sales channel
- Joint-sponsor instant rebates regularly available at retailers
- Special promotions
- NCPs with lighting manufacturers, distributors, and retailers

# Joint Program Administrator Enhancements Planned for 2009

- Place greater emphasis on solid-state lighting as well as new fixture opportunities through ENERGY STAR's latest CFL and SSL bulb and fixture specifications
- Encourage special promotions and NCPs that have integrated and comprehensive marketing components
- Support NCPs and other efforts to encourage CFL recycling efforts in retail locations

# **Sponsor-Specific Elements**

No Sponsor-specific items are noted at this time.

# 5.6 ENERGY STAR<sup>®</sup> Consumer Products (including Appliances)

#### Primary Objective

To raise consumer awareness of the benefits of energy-efficient ENERGY STAR– qualified consumer products, to encourage consumers to purchase ENERGY STAR– qualified appliances and consumer electronics, and to work with the Consortium for Energy Efficiency and others to promote higher efficiency standards for qualifying ENERGY STAR products and to help customers reduce energy bills by replacing or recycling inefficient products.

#### Initially Offered

1998

# Performance Goals

- 274 MWh estimated Net Annual savings
- 2,654 MWh estimated Lifetime savings
- 666 MW estimated Lifetime savings
- 2,600 estimated no. of participants

# Budget

Total planned expenditures all categories: \$255,800

# Joint vs. Sponsor-Specific Offering

Joint

# Program Design

The ENERGY STAR Consumer Products Program educates consumers about the benefits of ENERGY STAR–qualified products to increase consumer acceptance of those appliances and consumer electronics and to encourage them to look for and purchase ENERGY STAR–qualified models when they shop.

The sponsors plan to negotiate with interested manufacturers and retailers to leverage rebate and/or marketing funding. The program promotes all high-efficiency ENERGY STAR– qualifying appliances at the point of sale by providing promotional literature and displays to retailers, working with sales staffs to ensure they understand and can accurately market the benefits of ENERGY STAR–qualified appliances, and providing labels to identify models that meet ENERGY STAR standards. Select electronics also will be included in these activities.

The program supports raising federal and ENERGY STAR standards for appliances by promoting ENERGY STAR–qualified products. As particular ENERGY STAR–qualified products achieve a high share of market sales, the sponsors and other interested parties

are in a good position to advocate for higher minimum federal and ENERGY STAR energy-efficiency standards.

The program also actively participates in national ENERGY STAR awareness campaigns developed by the Environmental Protection Agency.

# Target Market

All residential customers

# Marketing Approach

A number of approaches are being used to increase general consumer awareness of the benefits of ENERGY STAR–qualified appliances and consumer electronics, to establish ENERGY STAR as the value leader in appliances, and to make it easy for consumers to identify qualifying products when they are shopping in stores. In addition to direct advertising targeting consumers, these approaches include supporting national ENERGY STAR marketing campaigns and working with industry partners at all levels of the retail supply chain.

Among the specific marketing activities targeting consumers are the following:

- Retail marketing and point-of-purchase displays
- Print and radio advertising, especially for the refrigerator recycling component
- <u>www.myenergystar.com</u>
- Public relations

Work with industry partners at all levels of the retail supply chain includes the following:

- Leveraging marketing budgets through cooperative promotions with retailers, distributors, and manufacturers, including marketing promotions, cooperative advertising, and special events at retail stores and in communities
- Training and supporting retail sales staffs so they are able to tell consumers about the benefits of using ENERGY STAR-qualified products and to help them choose the best products to meet their particular needs. Satisfied consumers are more likely to purchase ENERGY STAR-qualified products in the future.

# Target End Uses

To reduce the amount of water and electricity used in homes by clothes washers, room air conditioners, refrigerators and freezers, automatic dishwashers, dehumidifiers, and consumer electronics

# Recommended Technologies

The recommended technologies are ENERGY STAR–qualified clothes washers, room air conditioners, refrigerators, freezers, dishwashers, dehumidifiers, and consumer electronics. Working with national and regional campaigns, other appliances may be targeted for special efforts.

#### **Financial Incentives**

National Grid, NSTAR, and Cape Light Compact will offer rebates on ENERGY STAR– qualified refrigerators, room air conditioners, consumer electronics, and pool pumps, where budget allows and service territory demands.

#### **Delivery Mechanism**

Contractors selected through a competitive bidding process will be performing program services in 2009. (The lighting and appliance programs issued joint requests for proposals, and the same contractors provide services for both programs.)

- A manufacturer/retailer outreach contractor will recruit and train retailers to participate in the program; place point-of-purchase materials and rebate coupons in participating retail stores; conduct product labeling and special promotions; and act as a liaison for program sponsors, manufacturers, and retailers.
- A marketing contractor will develop messaging, procure media for marketing campaigns, produce educational materials and point-of-purchase promotional materials, and maintain and update the <u>www.myenergystar.com</u> website.
- A rebate fulfillment contractor will process rebate applications and provide documentation to the sponsors for program tracking and evaluation purposes.

# Joint Program Administrator Enhancements Planned for 2009

The sponsors plan to offer consumer incentives for qualified consumer electronics, refrigerators, room air conditioners, and pool pumps to enhance the ENERGY STAR products program. A separate targeted marketing approach may be required to promote pool pumps. The Compact also will offer a specific program component to encourage recycling of inefficient second refrigerators.

#### Sponsor-Specific Elements

The Cape Light Compact will support other energy efficiency program administrators in their specific elements as well as review some of the most applicable consumer products for this territory.

# 5.7 Education and Information

#### Primary Objective

To raise consumer awareness of the benefits of energy-efficiency activities and programs.

#### Initially Offered

2003

#### Performance Goals

All 3rd through 8<sup>th</sup> grade schools on Cape Cod and Martha's Vineyard

# Budget

Total planned expenditures all categories: \$80,000

# Joint vs. Sponsor-Specific Offering

Sponsor-specific

# Program Design

Educational and informational activities and funding for those activities are components of all residential programs, including low-income programs. In addition, the Cape Light Compact has energy-saving tips and information about and links to all the residential and low-income programs on its website (www.capelightcompact.org).

# Target Market

All residential customers and students in elementary, secondary, and vocational technical schools.

#### Marketing Approach

A number of approaches are being used to increase general consumer awareness of the benefits of energy efficiency and energy-efficiency programs, with an emphasis on educational material. Much of that material is available for downloading from the website.

#### **Target End Uses**

All residential energy uses

#### **Recommended Technologies**

Both conservation activities and participation in the Compact's energy-efficiency programs are recommended.

#### **Financial Incentives**

Free information is provided on the website and through advertising and other consumer outreach methods.

#### **Delivery Mechanism**

Through public meeting presentations provided by Governing Board members and staff, community access television, radio, newspaper, teacher advisory board, participating students and teachers.

#### **Sponsor-Specific Enhancements Planned for 2009**

Please see NEED Project program description (Section 8.1) specific to Cape Light Compact that has been offered since 2003 and is proposed to be expanded in 2009.

# 5.8 Research and Development and Pilots

# a. HEAT Loan Pilot Program

#### Primary Objective

To provide financial assistance to consumers for the purchase of certain cost-effective and energy-efficient improvements for their homes.

#### Initially Offered

2005

#### Performance Goals

Included as part of Retrofit 2. a. RCS/MassSAVE Program

#### Budget

Included in RCS/MassSAVE Program

#### Joint vs. Sponsor-Specific Offering

Joint. An Act Relative to Green Communities (Green Communities Act), Chapter 169 of the Acts of 2008, established the HEAT Loan Pilot Program to be administered by the Massachusetts Department of Energy Resources (DOER).

#### Program Design

The program provides financial assistance in the form of subsidized loan payments for loans to fund the purchase of eligible improvements. The HEAT Loan Pilot Program will utilize up to \$5 million statewide in systems benefit charges (SBCs) collected from electric utility ratepayers as provided in Section 19 of Chapter 25 of the Massachusetts General Laws. The SBC funds will be used to pay down the interest rate on loans issued by participating lending institutions to borrowers who purchase eligible energy-efficient improvements.

#### Target Market

Participation in the loan program is open to Massachusetts consumers whose electricity is provided by an electric utility that collects/administers SBCs under Section 19. Participation as a lender is open to any qualified state or federally chartered bank or credit union doing business in the Commonwealth, subject to terms from DOER.

# Marketing Approach

The HEAT Loan Pilot Program is publicized to recently audited consumers through the Residential Conservation Services (RCS)/MassSAVE Program. Other marketing methods have included strategically placed billboards, bill inserts, and direct mail.

# Target End Uses

To reduce the amount of energy used in homes

#### **Recommended Technologies**

- Home insulation, including wall and pipe insulation for heating systems
- New window installation
- Advanced programmable thermostats
- Oil, gas, propane, or electric heating systems
- Solar domestic or fuel-efficient hot water systems
- Duct sealing

Other preapproved materials and equipment for use in residential dwellings that increase the energy efficiency of those dwellings

#### **Financial Incentives**

The HEAT Loan Pilot Program will subsidize borrowers' interest rate by making a lumpsum payment to the lending institution. Interest subsidy payments will reduce the effective interest rate to 0% for borrowers with an income of 80% or less of the state median income and to 3% for borrowers with an income above 80% of the state median income. Payments will be an amount equal to the net present value of the interest rate subsidy agreed on in each borrower's loan agreement.

#### **Delivery Mechanism**

The HEAT Loan Pilot Program will be administered by DOER using the existing RCS network as the primary delivery agent, in coordination with participating lending institutions operating in the Commonwealth.

#### Joint Program Administrator Enhancements Planned for 2009

The participating program administrators will work with DOER to evaluate the effectiveness of the loan program and to make recommendations for continuing customer services when loan funds are exhausted.

#### Sponsor-Specific Elements

N/A

# b. Demand Reduction Technology Pilot

#### **Primary Objective**

To investigate the effectiveness of providing customers with a simple power cost monitor that gives them real-time information about their home electricity use.

#### Initially Offered

2007

#### **Performance Goals**

To be determined

#### Budget

Total planned expenditures all categories: \$100,000

#### Joint vs. Sponsor-Specific Offering

Joint

#### **Program Design**

The pilot will assess the costs and benefits of residential smart energy monitoring and demand reduction management technology in households on the Cape and Vineyard. The pilot design includes a plan to install power monitors and gather information on customer satisfaction and behavior modification, and a plan for testing various marketing methods.

#### **Target Market**

Residential customers

#### Marketing Approach

Marketing methods will include free installation through Residential Conservation Services (RCS), direct-mail offers to consumers, and other methods.

#### **Target End Uses**

To reduce the amount of electricity used in homes

#### **Recommended Technologies**

Various technologies under review.

#### **Financial Incentives**

The pilot will test various financial incentives, including free installation through RCS, and at least two price offerings.

# **Delivery Mechanism**

The Cape Light Compact will work with its RCS/MassSAVE Program delivery vendor to install the systems through the home energy assessment or special visit.

# Joint Program Administrator Enhancements Planned for 2009

N/A

# **Sponsor-Specific Elements**

N/A

# c. Deep Retrofit Pilot

#### Primary Objective

To investigate the potential of energy savings of approximately 30% to 50% through deep retrofits of existing residential buildings.

#### Initially Offered

2009

#### Performance Goals

3 estimated no. of participants

#### Budget

Total planned expenditures all categories: \$75,000

#### Joint vs. Sponsor-Specific Offering

Joint

#### Program Design

The pilot will assess the costs and benefits of deep energy retrofits in Massachusetts residences. The design includes a plan to support deep retrofits and to gather information on customer satisfaction, behavior modification, and energy savings. The pilot will help the Commonwealth begin to develop information on appropriate measures for deep retrofits, the correct way to model potential energy savings for deep retrofits, approaches for different housing types, training energy-retrofit contractors, customer education and marketing materials, and financing mechanisms and incentive levels.

#### Target Market

Residential customers

# Marketing Approach

A small number of existing homes will be selected to participate in this pilot. Homes on which renovations are planned (e.g., siding and/or window replacements) will be targeted. Homeowner investments will be leveraged to maximize the effectiveness of the deep energy retrofits.

# Target End Uses

To dramatically reduce the amount of energy used in homes

#### **Recommended Technologies**

- Exterior wall super insulation build-outs
- Attic insulation enhancements
- Foundation wall/slab insulation
- Extensive whole-house air sealing
- High-performance windows
- High-performance lighting, including the use of compact fluorescent light bulbs (CFLs)and light-emitting diode (LED) luminaires
- High-efficiency heating and cooling systems
- Advanced thermostatic controls
- High-efficiency appliances and products
- Mechanical ventilation
- Solar photovoltaic systems
- Solar thermal systems

#### **Financial Incentives**

High levels of incentives will be offered to ensure that deep retrofits are completed on a small number of existing homes.

#### **Delivery Mechanism**

Pilot program services will be delivered through the existing RCS network, with possible energy modeling and other assistance provided through the residential new construction program.

#### Joint Program Administrator Enhancements Planned for 2009

N/A

#### Sponsor-Specific Elements

Along with other program administrators, the Compact plans to offer this Deep Energy Retrofit pilot project in 2009.

# General Support

#### a. Intentionally omitted.

#### b. DOER Support

Section 54 of Chapter 149 of the Acts of 2004 authorized the commissioner of the Department of Energy Resources (DOER) to make an assessment against gas and electric utility companies doing business in Massachusetts. This assessment is to help underwrite DOER activities related to ratepayer-supported energy-efficiency programs pursuant to Massachusetts General Laws Chapter 25A, Section 11G, for which the department has oversight and coordination responsibility. This assessment is in addition to the Residential Conservation Services assessment.

#### c. Sponsorship and Subscriptions

The Compact continues to provide funding to organizations like Northeast Energy Efficiency Partnerships and the Consortium for Energy Efficiency that provide services consistent with the objectives of energy-efficiency programs in Massachusetts.

# d. Miscellaneous Market Research and Evaluation

The Compact has included funding in its energy-efficiency program budgets for miscellaneous market research and evaluation projects. This funding is intended to support already-identified projects that have not yielded sufficient detail to allow for development of a specific project budget. The funding also is intended to provide the Compact with the opportunity to participate in studies that support residential energy-efficiency efforts that may be identified during the year.

# 6. Residential Low Income Programs

# 6.1 Introduction and Overview

While low-income customers account for only a small portion of the total Compact electricity sales, they are an important component of the Compact's efficiency initiatives because they tend to use more electricity than other residential customers. One reason for this is that they rely more heavily upon electricity for space heating. Roughly twenty percent of customers on the low-income electric rate rely upon electric space heating, while only ten percent of other residential customers do. Low-income customers are also important because their electricity bills tend to represent a larger portion of their total expenses, relative to other residential customers, and reducing low-income electricity bills offers several societal benefits.

In 2009, the Compact will continue using the recently established criterion for determining the eligibility of customers for the low-income programs. Residential customers will be eligible for these programs if their household income is 60% or less of the median income for their family size in their county.

In recent years, the Massachusetts electric companies have coordinated their low-income efficiency programs through the LEAN. This network provides support in the design of low-income programs, and provides a connection to the local weatherization agencies that operate throughout Massachusetts. The Compact will continue to coordinate its low-income programs with the LEAN initiatives and the statewide best practices working group. The program designs in this EEP are based on the LEAN programs and measures, and the delivery of these programs will be coordinated with the local weatherization agency on Cape Cod and Martha's Vineyard.

The Compact is proposing a low-income program budget of \$1,500,000 among the lowincome single family and multi-family programs. In addition, it is estimated that approximately 20% of the residential new construction budget will provide support for low-income homes.

# 6.2 Low-Income Residential New Construction

# **Primary Objective**

To capture lost opportunities and encourage the construction of energy-efficient homes for low-income populations.

# Initially Offered

1998

#### Performance Goals

Approximately 20% of the Residential New Construction budget.

# Budget

Total planned expenditures all categories (see above)

# Joint vs. Sponsor-Specific Offering

Joint

# **Program Design**

Please refer to Section 5.2 Residential New Construction for all of the items. Only differences specific to low-income programs are included in this section.

# Target Market

To overcome market barriers and to promote the program, the Compact continues to build on relationships it has developed with public housing authorities and Weatherization Assistance Program agencies and on relationships with contractors who work in low-income and affordable housing construction. As discussed with other program administrators, Habitat for Humanity will be a focus for the year.

#### Marketing Approach

The Cape Light Compact will capitalize on its grant program from the Massachusetts Renewable Energy Trust, Green Affordable Homes, to continue to present at conferences and monitor the progress of affordable and low-income housing.

#### **Target End Uses**

Same as those in section 5.2

#### **Recommended Technologies**

Same as those in section 5.2

#### **Financial Incentives**

Same as those in Section 5.2 except that there is a \$100 package rebate for an ENERGY STAR qualified dishwasher and refrigerator.

Financial Incentives Low-Income Residential New Construction						
Package	kage Requirements		Multifamily Incentive			
CODE Plus	6 ACH CFM 50, 8% duct leakage	\$325	\$225			
ENERGY STAR I	HERS Index of 85 to 66	\$750	\$650			
ENERGY STAR II	HERS Index of 65 or less	\$1,250	\$1,150			

# **Delivery Mechanism**

Same as Section 5.2

# Joint Program Administrator Enhancements Planned for 2009

Same as Section 5.2

# Sponsor-Specific Elements

Same as Section 5.2

# 6.3 Retrofit

# a. Appliance Management Program

# Primary Objective

To deliver energy-efficient products and services directly to the homes of eligible lowincome customers to help them lower their energy bills while contributing to other key energy-efficiency market transformation objectives.

#### Initially Offered

The Appliance Management Program (AMP) was developed in 1996 in cooperation with the Massachusetts Low-Income Energy Affordability Network (LEAN).

#### Performance Goals

- MWh Lifetime Savings: 6,339
- MW Lifetime Savings: 443
- No. of Participants: 1,115

#### Budget

Total planned expenditures all categories: \$1,122,962

#### Joint vs. Sponsor-Specific Offering

Sponsor-specific

#### **Program Design**

The program provides a comprehensive home energy analysis of baseload appliance use. Analyses are conducted by Housing Assistance Corporation staff.

#### Target Market

The target market is customers living in 1- to 4-unit dwellings who are at or below 60% of median income. Customers in dwellings with more than 5 units are served through the Low-Income Multifamily Program. Low-income facilities of 5 to 20 units will continue to be eligible for nonelectric weatherization funding through AMP. In special cases, where outside grant money can enhance program services, the Compact may approve participation for customers in specific communities at 80% of median income.

#### Marketing Approach

In 2003 the Compact joined with other utilities and LEAN to sponsor the Energy Bucks marketing campaign. Energy Bucks is an integrated campaign combining grassroots outreach, community-based activities, and advertising to build awareness of programs

that offer low-income households greater energy efficiency, fuel assistance, and discounted utility rates.

# Target End Uses

By identifying efficiency measures, the program seeks to reduce electricity and heating fuel use in low-income households. In addition, the Massachusetts Technology Collaborative has funded roof and other energy-saving home repairs and a feasibility study of bringing alternative energy to low-income housing.

# Recommended Technologies

Among recommended technologies are weatherization measures (including health and safety components), installation of energy-efficient lighting and appliances, and the replacement of heating systems in conjunction with the Massachusetts Heating System Repair and Replacement Program, which is administered by LEAN. In specific circumstances, that program also replaces room air conditioners.

# **Financial Incentives**

All low-income products and services are delivered with no copayment from customers.

# **Delivery Mechanism**

By statute, low-income programs are implemented by the low-income weatherization and fuel assistance network. Most program services, including audits and data entry, are delivered directly by the network. However, in some cases it is more efficient or economical for the network to subcontract program components on a competitive basis (e.g., refrigerator replacement). Action, Inc., the lead vendor, serves as project coordinator and interface between the other agencies and program administrators, subcontractors, and the Compact. It subcontracts on a geographic basis to other members of the network.

AMP is administered by the Compact within its service territory. The Compact also works closely with the network on all aspects of program design and implementation. Its specific responsibilities include

- overseeing the use of SMOCERS<sup>TM</sup> software.
- providing software and technical training for the network staff.
- providing customer contact information and kWh consumption data for network use for marketing, billing, and data-tracking purposes.

The Compact works closely too with LEAN and other program administrators to continuously improve and refine the program through the Best Practices Working Group.

# Sponsor-Specific Enhancements Planned for 2009

No major program changes are planned for 2009.

# b. Low-Income Multifamily Program (Low-Income Multifamily)

# Primary Objective

To educate multifamily customers, both tenants and owners, about ways to save energy in their homes and facilities, and to provide information and incentives to help customers replace inefficient equipment cost-effectively. The focus of the low-income sector of the Multifamily Program is to deliver energy-efficient products and services directly to the apartments of existing low-income customers.

# Initially Offered

Services were first offered to low-income facilities in 1992, through the Multifamily Retrofit Program. In 1998 the program was renamed Multifamily.

# Performance Goals

- MWh Lifetime Savings: 1,215
- MW Lifetime Savings: 81
- No. of Participants: 210

# Budget

Total planned expenditures all categories: \$409,214

# Joint vs. Sponsor-Specific Offering

Sponsor-specific

#### **Program Design**

At the heart of the program is a comprehensive energy audit, followed up with energy education and installation of low-cost efficiency measures (e.g., compact fluorescent light bulbs, hot water measures, and air sealing for electrically heated buildings) — all provided to customers at no direct cost.

If the audit identifies the need for major measures in a facility with more than 20 units, the work is put out for competitive bids. Major measures include lighting fixture upgrades and replacement of inefficient refrigerators. For electrically heated facilities, major measures include heat pump testing and tune-ups, duct sealing, air sealing, thermostats, and insulation.

Custom electric saving measures (e.g., motors, pumps, and other equipment) are evaluated and provided through the Compact's Energy Initiative Program. The Low-Income Energy Affordability Network (LEAN) directly serves multifamily facilities with 25 units or less, and funding for that is included in the Low-Income Multifamily Program budget. Weatherization services for facilities with 5 to 25 units that are not heated with electricity are included in the Appliance Management Program (AMP) budget. In larger buildings, as required by statute, the Compact coordinates with LEAN: keeping LEAN and its member agencies informed about program activities, referring customers and facilities to the program, integrating gas and electric low-income programs, and participating in site visits and meetings with building owners. Energy analysis, bidding, installation, and oversight are provided by the Compact's Multifamily vendor. The Compact and LEAN continue to discuss opportunities for LEAN agencies to become more involved in the direct delivery of services to larger multifamily facilities. This also allows the Compact to capitalize on commercial funds for those that are master metered, and thus paying into the C&I sector.

# Target Market

The program targets multifamily facilities and condominium complexes with five or more dwelling units that are populated by low-income customers who are eligible for housing assistance or have income at or below 60% of the state median. All low-income customers living in these facilities/complexes, including public housing authorities, regardless of heating fuel type, who are interested in making their homes more energy efficient are eligible. The low-income multifamily sector includes buildings that are populated by at least 50% low-income customers who are eligible for housing assistance or have income at or below 60% of the state median.

# Marketing Approach

The program is marketed through direct contact with interested customers and homeowners, referrals from LEAN and other low-income agencies, property owners' associations, bill inserts, customer newsletters, the Compact's website, home show exhibits, and other methods. For low-income facilities, marketing efforts are integrated with those of the low-income community action agencies within the service territory.

A vital element of the marketing plan is an outreach effort to inform customers about the availability and value of energy-efficiency services. The Compact uses its relationship with community action agencies, public housing authorities, and other low-income property managers to market the benefits of the program to low-income facilities. There is typically a waiting list for program services, though the program usually is able to serve customers within the year a participation request is made.

# Target End Uses

The program targets energy-saving improvements in the facility shell, domestic hot water system, and electric heating system, and in appliances and lighting.

#### **Recommended Technologies**

- Air and duct sealing
- Insulation
- Refrigerator replacement
- Thermostats
- Ventilation
- Lighting upgrades

- Domestic hot water saving devices
- Heat pump tune-ups

# **Financial Incentives**

If at least 50% of the facility's occupants are low income, services are delivered by means of direct installation with no copayment from the customers except in the case of refrigerator replacements. No copayments at all are required for public housing authorities. For privately owned low-income multifamily buildings, property owners pay the difference between the full cost of each refrigerator and the \$300 Compact incentive for each refrigerator.

# **Delivery Mechanism**

The program is administered by the Compact within its service territory. It is delivered by independent energy service providers selected through a competitive bidding process and by local community action agencies.

Work completed by Multifamily energy service providers and their subcontractors must meet standards set by the Building Performance Institute or similar standards set by the individual sponsor. At the initial site visit, an auditor conducts a comprehensive assessment of all end uses in an effort to identify all cost-effective efficiency upgrades. Where appropriate, this assessment includes an evaluation of efficient lighting opportunities, diagnostic tests of air leakage (with a blower door, if appropriate), duct leakage (with duct blaster or equivalent), heat pump (focused on airflow and charge), insulation levels, water heating equipment, and refrigerator efficiency. All reasonable measures are screened for cost-effectiveness, and major measures are put out to competitive bid in facilities with more than 20 units. The facility owner/manager/association signs a contract authorizing the work. Work is completed by selected subcontractors under the energy service provider's direction. The program went out to bid for vendors in the fall of 2004.

# Sponsor-Specific Enhancements Planned for 2009

The Compact plans on working closely with fuel assistance agencies and other human service agencies to coordinate programs with the recent changes to fuel assistance and the utility discount rates.

# Products and Services

Low-income customers are eligible to participate in the Compact's ENERGY STAR<sup>®</sup> programs. See the discussion about products and services in section IV.A.3.

# Education and Information

Education and information are included in all programs. The Appliance Management Program, in particular, has a strong educational focus. Student educational activities, which are described in section IV.A.4, are available regardless of income.

# Research and Development and Pilots

The Compact plans to continue working with the Massachusetts Low-Income Energy Affordability Network (LEAN) to identify new cost-effective energy-efficiency services and measures that are appropriate for low-income customers. The Compact will continue its research with LEAN on issues like moisture control and indoor air quality through participation in the Best Practices Working Group.

# General Support

Low-Income Energy Affordability Network (LEAN): The Compact has agreed to fund the Low-Income Energy Affordability Network, which works in collaboration with the Compact on low-income energy-efficiency efforts.

# 7. Commercial and Industrial Programs

# 7.1 Introduction and Overview

Table 7.1 presents an overview of the commercial and industrial customers and sales within the Compact member towns in 2007. The information is broken out by small versus medium/large customers. The small and medium customer categories are defined according to the DOER definitions prescribed for the Annual Report on Energy Efficiency Activities. The small customer category includes customers on the G7 and GENSEASONAL rates, and the medium customer category includes those on the G-1, G5 and G6 rates.<sup>2</sup>

	Number of Customers	Percent of Class	Percent of Total	Sales (MWh)	Percent of Class	Percent of Total
Small	2,881	11%	1.4%	32,560,292	3.4%	1.6%
Medium	20,925	79%	10.4%	574,807,311	60.8%	28%
Large	182	1%	0.1%	309,076,836	32.7%	15%
Streetlights	2,445	9%	1.2%	8,833,328	0.9%	0.4%
Total C&I	26,443	100%	13.2%	944,767,510	100%	45%
Total Compact	200,955		100%	2,055,126,848		100%

 Table 7.1 Commercial and Industrial Customers and Sales in 2007

The C&I totals do not equal the sum of the components because the Total C&I includes CON accounts.

The Compact's C&I programs differ from the residential programs in that they offer customers and vendors both prescriptive and custom approaches to energy efficiency measures. Under the prescriptive approach, customers are informed of energy efficiency measures and services that are available, along with pre-determined levels of financial support for each. Under the custom approach, Compact technical assistance providers and contractors, as well as customers and their vendors, are free to propose efficiency improvements that are specifically tailored to the individual customer's needs and

<sup>&</sup>lt;sup>2</sup> Note that the small, medium and large customer categories used here are not the same as the categories used in defining eligibility for the Small versus Medium and Large C&I Retrofit programs. Many of the medium-size customers presented here are eligible for the Small C&I Retrofit program; and the remainder are eligible for the Medium and Large C&I Retrofit program.
interests. The Compact will then review each proposal to ensure that it is cost-effective and meets relevant program guidelines. Under this approach, customers or vendors will be reimbursed for a certain percentage of the incremental cost of the installed efficiency measures.

## 7.2 C&I New Construction and Rehabilitation

#### **Primary Objective**

The C&I New Construction Program promotes energy efficiency in the design and construction of all new commercial, industrial, institutional, and government facilities.

#### Initially Offered

July 2001.

#### Joint Vs Sponsor-Specific Offering

This program is similar to the C&I new construction programs being offered by electric distribution companies in the region in order to help eliminate customer confusion and achieve consistent approaches to C&I energy efficiency.

#### Program Design

Participating customers will be offered technical support, financial assistance, education, project design and commissioning services. The Program is available to customers at the time of new or substantial reconstruction, renovation, remodeling of existing buildings, or equipment replacement at the end of its useful life. The intent is to help customers overcome the first-cost and other barriers to investing in energy efficiency. An additional component of the program includes marketing and implementation of regional market transformation initiatives such as Massachusetts MotorUp and Massachusetts Cool Choice.

The Compact along with the electric distribution companies and National Grid (Gas) is a sponsor of Advanced Buildings, a nationwide program offered by the New Buildings Institute, White Salmon, WA. Advanced Buildings is a resource to improve the way buildings are designed, built and used. It provides design materials, training, marketing strategies and technical support for Architects, Engineers and Building Committees contemplating new construction in the Cape Light Compact service territory.

#### Target Market

The C&I New Construction Program targets all time-dependent energy efficiency opportunities in the commercial and industrial sector. Special attention will be given to new building owners, architects, engineers, distributors and other trade allies for new equipment.

#### Marketing Approach

Eligible customers and vendors are encouraged to submit proposals for site-specific projects, i.e., the program is vendor-driven. Qualified vendors and customers will be encouraged to propose projects to be serviced by this program. In some cases vendors and customers will take the initiative of performing engineering studies as appropriate, identifying efficiency measures, documenting the incremental costs and savings of the measures, installing all qualifying measures, performing any on-going O&M services, and demonstrating the savings that are achieved over time. In many cases, however, these services will be encouraged or directly provided by the Compact. For example, the Compact will provide technical and design assistance early in the development of designs to ensure efficient measures are analyzed and included in projects where appropriate and cost effective. For customers interested in these services, the Compact will work out financial arrangements where the customer may contribute some portion to these service costs.

#### Target End Uses

Targeted end uses include but are not limited to lighting equipment and controls, lighting design, motors, HVAC systems, envelope measures, compressed air and industry-specific industrial processes.

#### **Recommended Technologies**

This program covers a wide range of efficiency measures, depending upon the customer's electricity end-uses and measure cost-effectiveness. The technologies supported include, but are not limited to, lighting, variable speed drives, building envelope measures, controls, energy management systems, HVAC and process improvements.

#### **Financial Incentives**

Prescriptive efficiency criteria and financial incentives are offered for selected lighting, motor, variable frequency drive and HVAC measures. The Compact along with the electric distribution companies has adopted a two-tier Performance Lighting incentive which rewards customers for achieving Lighting Power Densities (LPDs) based on the type of building or space. All other cost effective measures are promoted with custom incentives. Financial incentives are based on the incremental equipment and labor costs of installing efficient equipment, as compared to the costs of standard efficiency equipment. Two types of rebates are offered: prescriptive and custom. Prescriptive rebates are fixed amounts provided for specific measures, while custom rebates are based on the unique energy savings criteria of a customer's efficiency project. In general, rebates are designed to cover up to 80% of the incremental cost of the efficiency measure or to buy down the cost of the equipment to a one and a half year payback period, whichever is less (in the case of Government Agencies, the Compact waives the 20% copayment requirement and 100% of the incremental cost, up to \$150,000, of efficiency measures are supported by the program (see Section 7.5 Government Agencies for further description)).

This program also offers design incentives, where appropriate, to cover 50 to 100 percent of incremental architectural and design costs for efficiency improvements.

New in 2009, the 80 % financial incentive will be increased from \$75,000 to a maximum of \$150,000 per project. Upon a vote of the Governing Board of the Compact, requests to exceed this limit may be approved on a project-by-project basis.

#### **Delivery Mechanism**

The Compact will deliver financial incentives along with technical assistance, training, and commissioning. Financial incentives reduce the cost barrier to investing in energy efficiency. Technical assistance provides information and education to participants in the use of energy efficient engineering practices to advance better design in buildings. Technical assistance also provides the customer with criteria related to energy efficiency options that can be used when the customer specifies new equipment. Additional education opportunities for customers and trade allies are offered through the Compact's participation in the regional and national market transformation initiatives, such as Advanced Buildings "Core Performance". Additionally, commissioning ensures that the designs and systems specified for efficient buildings operate as intended by the design professionals.

#### Joint Program Administrator Enhancements Planned for 2009

The Program Administrators have more closely aligned eligibility requirements and incentives.

The Compact has streamlined its rebate applications with an eye towards alignment with the Massachusetts electric distribution companies in order to make the application process easier for the customer and vendors that operate over multiple territories.

#### Sponsor Specific Elements

The Compact waives the 20% co-payment requirement and pays 100% of project marginal cost for Government facilities up to cap of \$150,000.

## 7.3 Large Commercial and Industrial Retrofit

#### **Primary Objective**

To focus on energy efficiency opportunities associated with existing mechanical and electric systems in commercial, industrial and institutional buildings whose electric demand exceeds 300 kW (this is an increase from 100 kW from the prior plan).

#### Initially Offered

2001.

#### Joint Vs Sponsor-Specific Offering

Compact specific.

#### Program Design

The program offers customers financial assistance, education, technical assistance and commissioning services. It covers a wide range of efficiency measures, depending upon the customer's electricity end-uses and measure cost-effectiveness. The technologies supported include, but are not limited to, lighting, variable speed drives, building envelope measures, controls, energy management systems, HVAC and process improvements. Financial incentives are based on the total equipment and labor costs of installing efficient equipment.

The Compact has joined the Massachusetts electric distribution companies and National Grid (Gas) in sponsoring the Massachusetts Energy Efficiency Partnership (MAEEP) housed at the University of Massachusetts, Amherst in order to provide sophisticated training and technical assistance to the C&I sector. The Compact continues to support Building Operator's Certification (BOC).

#### Target Market

Market includes customers and trade allies such as equipment vendors and energy services companies.

#### **Marketing Approach**

This program is marketed using media advertisements, direct mail to customers, Cape Cod Chamber of Commerce and trade allies, customer site visits, the Cape Light Compact web site, and construction bulletins. Eligible customers and vendors are encouraged to submit comprehensive proposals for site-specific projects, i.e., the program is vendor-driven. Qualified vendors and customers will be encouraged to propose projects to be serviced by this program. In most cases, vendors and customers will have the responsibility for performing engineering studies as appropriate, identifying all efficiency measures, documenting the incremental costs and savings of the measures, installing all qualifying measures, performing any on-going O&M services, and demonstrating the savings that are achieved over time.

#### Target End Uses

Targeted end uses include but are not limited to lighting and lighting controls, motors & drives, heating, energy management systems, compressed air and industrial processes.

#### **Recommended Technologies**

More frequently recommended technologies include but are not limited to efficient lamp technologies, efficient lighting fixtures, lighting controls, efficient motors and motor drive systems, efficient HVAC and compressed air systems.

A policy was developed by the utilities and energy efficiency providers in the lighting program that no longer allowed a re-lamp/re-ballast retrofit of an existing T-8 equipped fixture to a "High Performance T-8" system. The Compact joined in adopting a similar provision but makes an exception when a project is granted a specific waiver. The waiver will ordinarily be granted when, for the sake of maintenance efficiency, the customer wishes to minimize the number of different replacement lamps to keep in stock and/or when the existing T-8's had not been installed under a previous Cape Light Compact program. Instead of re-lamp/re-ballast, the Compact will encourage replacement of an existing fixture with an energy efficient fixture.

#### **Financial Incentives**

Two types of rebates are offered: prescriptive and custom. Prescriptive rebates are fixed amounts provided for specific measures, while custom rebates are based on the unique energy savings criteria of a customer's efficiency project. Prescriptive incentives are offered for selected lighting control measures only. The Compact along with the electric distribution companies has adopted a two-tier Performance Lighting incentive which rewards customers for achieving LPDs based on the type of building or space. Any other electrical efficiency measures that pass the cost-effectiveness criteria are eligible for custom incentives. In general, rebates are designed to cover up to 50% of the cost of the efficiency measure or to buy down the cost of the equipment to a one and a half year payback period, whichever is less. This program also offers design incentives, where appropriate, to cover 50 to 100 percent of incremental architectural and design costs for efficiency improvements.

New in 2009, the 80% financial incentive will be increased from \$75,000 to a maximum of \$150,000 per project. Upon a vote of the Governing Board of the Compact, requests to exceed this limit may be approved on a project-by-project basis.

In the case of Government Agencies, the Compact waives the 20% co-payment requirement and pays 100% of the cost, up to \$150,000, of effective efficiency measures are supported by the program. See Section 7.5 Government Agencies for further description.)

#### **Delivery Mechanism**

Program implementation activities are directed through trade allies, energy service companies, and customers. The Compact contracts for support of certain activities including technical review of some applications, technical assistance for comprehensive design, chiller, and other projects, and post installation inspection. The Compact has also established partnerships with the Cape Cod Chamber of Commerce and local Chambers of Commerce and trade associations to promote all C&I programs

#### Joint Program Administrator Enhancements Planned for 2009

The Program Administrators have more closely aligned eligibility requirements and incentives.

The Compact has streamlined its rebate applications with an eye towards alignment with the Massachusetts electric distribution companies in order to make the application process easier for the customer and vendors that operate over multiple territories.

#### **Sponsor Specific Elements**

The Compact waives the 20% co-payment requirement and pays 100% of project cost for Government facilities up to cap of \$150,000.

## 7.4 Small Commercial and Industrial Retrofit

#### Primary Objective

To focus on energy efficiency opportunities associated with existing mechanical and electric systems in commercial, industrial and institutional buildings whose electric demand does not exceed 300 kW (this is an increase from 100 kW in the prior plan).

2001.

#### Joint Vs Sponsor-Specific Offering

Compact specific.

#### Program Design

Program offers a turnkey audit, installation and incentive, to small business customers whose demand does not exceed 300 kW. The Compact has joined the Massachusetts electric distribution companies and National Grid (Gas) in sponsoring the Massachusetts Energy Efficiency Partnership (MAEEP) housed at the University of Massachusetts, Amherst in order to provide sophisticated training and technical assistance to the C&I sector. The Compact will continue to support the Building Operator's Certification (BOC) course.

#### Target Market

Eligible customers include small offices, retail and light industrial facilities.

#### Marketing Approach

Vendors selected through a competitive bid process will be responsible for all aspects of delivering this program, including developing and implementing the marketing plan, identifying eligible participants, conducting the energy audits, and installing measures or coordinating and managing third party installations as warranted.

The program vendors have the primary responsibility for marketing this program. The Compact has also established partnerships with the Cape Cod Chamber of Commerce and local Chambers of Commerce and trade associations to promote all C&I programs.

#### **Target End Uses**

Targeted end uses include but are not limited to lighting and lighting controls, HVAC and refrigeration. Other energy savings opportunities can be served through a custom approach.

#### **Recommended Technologies**

The specific technologies addressed will depend upon the needs of each participant. All end-uses are eligible for efficiency improvements, within cost-effectiveness constraints. The primary opportunities are likely to come from lighting, refrigeration, water heating and HVAC end-uses. Where appropriate, retrofitting multiple and interacting end-uses will be coordinated to ensure optimal system design (e.g., re-sizing and replacement of cooling equipment at the time of a comprehensive lighting replacement).

In the past, lighting and refrigeration efficiency measures have dominated the Small C&I programs because of their short pay-back periods. Beginning in 2005 and continuing into 2009, the Compact will provide the program vendors with the mandate to expand the range of efficiency measures that are promoted to customers. Some additional measures may become standard practice. In addition, the contractor will be expected to identify and install (either directly or through a subcontractor) all cost-effective electric efficiency measures on a custom basis. In 2007 the Compact ran a pilot program for screw-in CFLs; this initiative will be offered in 2009 directly through the Cape Light Compact and through the Cape Light Compact Small C&I program vendor. In the summer of 2007, the Compact through its Small C&I program vendor installed vending misers on soft drink and snack machines throughout Cape Cod and Martha's Vineyard. A policy was developed by the utilities and energy efficiency providers in the lighting program that no longer allowed a re-lamp/re-ballast retrofit of an existing T-8 equipped fixture to a "High Performance T-8" system. The Compact joined in adopting a similar provision but makes an exception when a project is granted a specific waiver. The waiver will ordinarily be granted when, for the sake of maintenance efficiency, the customer wishes to minimize the number of different replacement lamps to keep in stock and/or when the existing T-8s had not been installed under a previous Cape Light Compact program. Instead of relamp/re-ballast, the Compact will encourage replacement of an existing fixture with an energy efficient fixture.

Participants who are not eligible for gas efficiency programs from National Grid (Gas) will also be provided with educational materials and small financial incentives for nonelectric efficiency measures. The Small C&I program vendor will present such participants with a list of non-electric efficiency measures, such as faucet aerators, weather stripping, insulation, duct sealing measures, commercial dishwasher efficiency measures, and others. Certain low-cost measures will be installed for free, some measures will be covered by the Compact with an 80% rebate up to a total \$2,000 cap per project, and other measures will have to be fully paid by the customer. The Compact reviews and coordinates with other program administrators its prescriptive and custom C&I offerings to ensure current technologies and other energy efficiency measures are up to date.

#### **Financial Incentives**

Participants will be provided with audits to identify cost effective opportunities free of charge. Most participants will receive from the Compact a rebate equal to 80% of the total equipment and labor costs of installing efficient measures.

#### **Delivery Mechanism**

This program is delivered utilizing a contract vendor hired through a competitive bidding process. Upon the written request of the customer, another vendor/installer may be used. In the request, the customer must acknowledge that he/she understands that the vendor/installer has no contractual relationship with the Cape Light Compact and does not represent the Cape Light Compact.

#### Joint Program Administrator Enhancements Planned for 2009

The Program Administrators have more closely aligned eligibility requirements and incentives.

The Compact has streamlined its rebate applications with an eye towards alignment with the Massachusetts electric distribution companies in order to make the application process easier for the customer and vendors that operate over multiple territories

#### **Sponsor Specific Elements**

The Compact retains the services of a Registered Professional Engineer on a consulting basis for the purpose of providing technical assistance to small business customers.

The Compact will offer a screw-in CFL program that had been previously offered as a pilot program.

### 7.5 Government Agencies

#### Primary Objective

To deliver all energy efficiency services in the C&I sector to the government sector and continuation of the Government Agencies Program that the Compact is currently offering.

#### Initially Offered

2001.

#### Joint Vs Sponsor-Specific Offering

Compact specific.

#### Program Design

The Compact is aware that many government agencies do not have the funding or authority to pay for even 20% of the cost of efficiency investments. As a result, this

program will cover 100% of the costs, up to \$150,000 (and increase from \$75,000 in prior plans), of the eligible efficiency improvements. In prior years, the Compact has been able to secure supplemental funding from Barnstable County, which has been used to provide additional financial incentives to improve the efficiency of the facilities in Barnstable County and the government customers in its constituent municipalities. Due to budget cuts resulting from a down turn in County revenues, no supplemental funds will be available from the County. Declining revenues for governmental entities reinforce the importance of eliminating co-pays for energy efficiency measure installations.

This program addresses all government facilities, including municipal, state and federal facilities. These customers will be offered the same efficiency services that are offered through the C&I New Construction, C&I Large and Medium, and C&I Small Customer Programs, depending upon their size and needs. The primary difference between this program and the other C&I programs will be in the marketing and financial incentives. The Compact will market, on a limited basis subject to budget limitations, its C&I programs to all government customers though its government agency network on the Cape and Vineyard. In addition, technical and design assistance will be provided at no cost, and measure financial incentives will cover 100%, up to \$150,000, of the incremental (new construction) and full (retrofit) costs of measures.

The Compact has joined the Massachusetts electric distribution companies and National Grid (Gas) in sponsoring the Massachusetts Energy Efficiency Partnership (MAEEP) housed at the University of Massachusetts, Amherst in order to provide sophisticated training and technical assistance to the C&I sector. The Compact will continue to support the Building Operator's Certification (BOC) course.

#### Target Market

Market includes all government facilities in the Compact service territory.

#### Marketing Approach

For small government customers, the same vendor that implements the Small C&I Program will implement this program. For new construction, and large government agencies, the same strategies and services will be used as for non-governmental customers.

#### Target End Uses

Targeted end uses include but are not limited to lighting and lighting controls, motors & drives, heating, energy management systems and compressed air.

#### **Recommended Technologies**

More frequently recommended technologies include but are not limited to efficient lamp technologies, efficient lighting fixtures, lighting controls, efficient motors and motor drive systems, efficient HVAC and compressed air systems.

A policy was developed by the utilities and energy efficiency providers in the lighting program that no longer allowed a re-lamp/re-ballast retrofit of an existing T-8 equipped fixture to a "High Performance T-8" system. The Compact joined in adopting a similar provision but makes an exception when a project is granted a specific waiver. The waiver will ordinarily be granted when, for the sake of maintenance efficiency, the customer wishes to minimize the number of different replacement lamps to keep in stock and/or when the existing T-8's had not been installed under a previous Cape Light Compact program. Instead of re-lamp/re-ballast, the Compact will encourage replacement of an existing fixture with an energy efficient fixture.

#### **Financial Incentives**

Government agencies will be offered the same efficiency measures and technical support as the customers in other C&I programs. The Compact will provide all participating government agencies with financial incentives to cover 100%, up to \$150,000, of the incremental costs of new efficiency measures as the budget will allow. This increase in the financial incentives will help address the fact that many government agencies currently have very limited budgets and are unable to contribute toward a portion of the efficiency costs.

The financial incentives will be limited to a maximum of \$150,000 per project. Upon a vote of the Governing Board of the Compact, requests to exceed this limit may be approved on a project-by-project basis.

#### **Delivery Mechanism**

Program implementation activities are directed through customers, authorized vendors, trade allies and energy service companies that are certified as Prime Contractors on the DCAM list of contractors under the Energy Management category. The Compact contracts for support of certain activities, including technical review of some applications, technical assistance for comprehensive design, chiller, and other projects, and post installation inspections. The Compact has also established partnerships with the Cape Cod Chamber of Commerce and local Chambers of Commerce and trade associations to promote all C&I programs for businesses.

#### Joint Program Administrator Enhancements Planned for 2009

The Program Administrators have more closely aligned eligibility requirements and incentives.

The Compact has streamlined its rebate applications with an eye towards alignment with the Massachusetts electric distribution companies in order to make the application process easier for the customer and vendors that operate over multiple territories.

#### **Sponsor Specific Elements**

The Compact issued an Invitation for Bid ("IFB") for the purpose of qualifying one or more vendors to support an initiative to install adjustable frequency drives ("AFD") to motors used in pumping water at several Water Districts and Departments on Cape Cod and Martha's Vineyard. The first project at the Harwich Water Department began in 2005 since then seven other Water Districts and Departments have received these targeted energy efficiency upgrades. Due to the cost-effectiveness of this popular program, the Compact expects to continue on a high level through 2009 and to include wastewater facilities. A member of the Compact staff attends meetings of the Barnstable County Water Utilities Association in order to promote energy efficiency amongst the membership.

The Compact pays 100% of project cost for Government facilities up to cap of \$150,000.

## 7.6 C&I Products and Services

#### Primary Objective

To transform the markets for particular energy efficiency products, services and practices.

#### Initially Offered

2001.

#### Joint Vs Sponsor-Specific Offering

Joint.

#### Program Design

The Compact will continue to participate in the regional C&I market transformation programs that are being designed and coordinated through regional efficiency agencies. This includes the following initiatives:

<u>Massachusetts MotorUp.</u> This is a continuation of the program formerly offered by NEEP to transform the market for motors by offering customers rebates for purchasing and installing premium-efficiency motors as qualified by the Consortium for Energy Efficiency. <u>Massachusetts Cool Choice.</u> This is a continuation of the program formerly offered by NEEP designed to increase the adoption of energy efficient unitary HVAC products through marketing, customer rebates, promotion of high-efficiency unitary HVAC equipment among consumers, equipment specifiers, and vendors, and working with other organizations to promote higher national standards for unitary HVAC equipment. <u>National Standards.</u> Through the Compact's involvement in CEE and NEEP's national and regional premium efficiency motor and unitary HVAC initiatives a collaborative effort continues to promote higher national standards.

<u>Training and Education</u>. The Compact will offer best practices workshops in motors, compressed air, fan system efficiency, chilled water, pump systems, process heating and benchmarking through the Massachusetts Energy Efficiency Partnership (MAEEP) to C&I customers.

<u>Building Operator's Certification (BOC).</u> The course trains and certifies individuals in energy and resource efficient operation of building systems at two levels: Level I -Building System Maintenance and Level II - Equipment Troubleshooting and Maintenance. Participants attend classes, complete tests and in-facility projects, and receive Building Operator Certification. Students attend 8 days (60 hours) of training over 3 to 4 month period. Students must complete 5 project assignments in their facilities. An exam is administrated and the student is certified based on passing grade.

<u>Advanced Buildings.</u> In 2007, the Compact became a sponsor of Advanced Buildings (AB) program model developed by the New Buildings Institute (NBI) in cooperation with US EPA, ASHRAE, the US Green Buildings Council and the national Building Operators and Managers Association. A key element of the AB is "Core Performance," an allinclusive set of standards for building efficiency and sustainable design. Core Performance complements the Comprehensive Design Approach with a special emphasis on smaller buildings. AB also serves to promote better commercial design practices such that advancements in the Massachusetts building code can be implemented at an accelerated rate. The Compact has played a lead role nationally in the development and refinement of Advance Buildings along with other stakeholders, including other gas and electric utilities. For 2009, the Compact will continue to participate in the development of support materials targeted at practitioners and building owners. Also, the Compact will continue to sponsor training in coordination with other system benefits administrators across the region.

<u>Energy Management Planning</u>. The Compact will offer customized energy management planning and staff training to its municipalities. Barnstable County recently contracted with one of the Compact's vendors to provide planning, development of a training curriculum and delivery of staff training to the Town of Falmouth using County funds. The Compact plans to offer similar services to other municipalities using the Falmouth template.

<u>Demand Response Services</u> A Demand Response Pilot Program will be offered to C&I customers who are able to make a commitment to reduce energy consumption by a minimum of 100kW of demand when requested by ISO New England. The request from ISO will occur when there is a Reliability Event, a severe regional reliability problem on the wholesale electricity grid. Participants will have the option to choose a 30-minute response time or a 2-hour response time. Participants will be paid for the energy and capacity they provide to the New England grid based on measured load reduction during the Reliability Event.

#### Target Market

The market includes all commercial, industrial and government facilities, owners and building operators in the Compact service territory, as well as builders, developers, contractors, retailers, and other trade allies.

#### Marketing Approach

This program is marketed using media advertisements, direct mail to customers, Cape Cod Chamber of Commerce and trade allies, customer site visits, the Cape Light Compact web site, and construction bulletins.

#### Target End Uses

Targeted end uses include but are not limited to lighting and lighting controls, motors & drives, heating, energy management systems and compressed air.

#### **Recommended Technologies**

Massachusetts Cool Choice and Massachusetts MotorUp will promote high efficiency HVAC and NEMA Premium Efficiency motors. Best Practices workshops will include but are not limited to: compressed air, chillers, fans, pumps and process heating.

#### **Financial Incentives**

Financial incentives will vary by program. Massachusetts Cool Choice and Massachusetts MotorUp offer prescriptive rebates. Incentives to attend best practices workshops offered through MAEEP will vary based on the specific workshop. Should the BOC be offered in 2009, upon successful completion the Compact will offer a reimbursement of up to \$500 towards the \$1275 tuition in the case of Commercial and Industrial customers and 100% in the case of Municipal employees. Advanced Buildings incentives will include those offered in the New Construction program.

#### **Delivery Mechanism**

The program is primarily delivered through the vendor network. Massachusetts MotorUp is provided through a vendor who is responsible for identifying, recruiting, and training trade allies to support program efforts. Massachusetts Cool Choice is provided through the same vendor who acts as a regional circuit rider and informs HVAC retailers about the programs and distributes the appropriate rebate information. The Best Practices Workshops are provided by staff and consultants hired by MAEEP. For Massachusetts MotorUp and Massachusetts Cool Choice (the unitary HVAC program), the Compact will promote the measures to its customers and provide any technical assistance and rebates, as appropriate.

#### Joint Program Administrator Enhancements Planned for 2009

The Program Administrators have more closely aligned eligibility requirements and incentives.

#### **Sponsor Specific Elements**

The Compact will continue to encourage C&I customers to participate in the Residential ENERGY STAR<sup>®</sup> Products and Services Program, where appropriate. For example, owners of hotels, inns, small shops and restaurants will be informed of the rebates available for purchasing new efficient room air conditioners. As another example, small C&I

customers will be informed of the rebates available for purchasing new efficient dehumidifiers.

# 8. Public Education and Marketing

The Cape and Vineyard communities – like all communities – continue to struggle with a lack of consumer awareness and corresponding limited knowledge of energy efficiency technology and practices. Well-designed programs and consumer education are key to overcoming these barriers. Building on lessons learned during Phase I, II & III of the Compact's energy efficiency program, the Compact has revised several aspects of the education and marketing plan in this Plan. The revisions are described below.

The representatives of the Compact Governing Board (the "Board") will remain a vital link to consumers. Board members provide educational information to consumers through: (1) regular updates to town Boards of Selectmen and Councilors on the Compact energy efficiency programs (most of these meetings are televised on a local government access channel); (2) speaking engagements and membership on various civic and business committees per member; and (3) outreach to the media, including daily and weekly newspapers and radio spots.

Looking ahead, the Compact will continue to utilize the extensive network and opportunities it has at the community level to deliver its public education and marketing programs, including working with local environmental groups who share the same goals as the Compact, to advance existing and emerging energy efficiency services, technologies, and practices.

## 8.1 Cape Light Compact Schools Initiative

### Background

It is a well known fact in the field of education that in order to affect change in our society, education must start at the elementary school level. The Cape Light Compact has taken this point seriously and has applied its outreach and marketing efforts accordingly. Using a model for science-based facts, the Compact's education efforts focus on the continuation and implementation of an energy education program for elementary school students on the Cape and Vinevard. Affiliated with the Department of Energy's Energy Information Services (EIA: <u>www.eia.doe.gov</u>), the National Energy Education Development project (NEED: www.need.org) continues to be the Compact's educational partner for curriculum materials as it is aligned with the MA State Frameworks for Science and Technology. Introduced in the fall of 2003, NEED is in concert with national and state standards for science and technology education for grade levels K-12 and is an asset to teachers on the Cape and Vinevard. In the five years of outreach implementation, the Compact's partnership with the NEED project has helped over 50 schools within our region learn about forms and sources of energy, energy efficiency and conservation and renewable energy technologies. The Cape Light Compact was honored with NEED's Region of the Year Award in 2004 for ongoing efforts in energy education. Since then, for four consecutive years, the Cape Light Compact's NEED program has produced nationally recognized award winning school programs. In addition, the

Compact's Energy Education Program was awarded the 2007 Innovation Award for the "Solarize Our Schools" program by the Interstate Renewable Energy Council for including an educational component in a regional 21 town schools PV system installation project.

Presently, delivery of the Compact's education program includes in-class lessons, presentations, teacher workshops, curriculum and materials support as well as the "Change The World, Start With ENERGY STAR" campaign with free CFL "give-away", CFL school fundraisers, and solar energy lessons using NEED kits and the Compact's "Solarize Our Schools" data acquisition systems with educational web-based interface (DAS) for tracking real-time PV output data. With these resources, students also engage in public outreach efforts in an attempt to bring energy literacy to their communities. "Energy Carnivals" are held with the help of school energy clubs and community adult volunteers. Teacher training and workshops for professional development are held annually as well as teacher conferences on NEED based curriculum. Various educational kits and materials are available free for school and community use.

The Compact continues to work with a Teacher Advisory Board consisting of teachers, school administrators, Compact board members and staff. This group assists with assessment, implementation and evaluation of the Energy Education Program.

### Proposed

As of the fall of 2008, the Compact's NEED Project has a presence in all Cape and Vineyard schools with elementary grade programs. Its success rate can be greatly increased through the hiring of additional contract science education professionals for delivery directly to the schools, additional kits and educational materials for each school grades 3 through 8, and the addition of teacher workshops and technical assistance program support to the middle school (grades 7 and 8) level. In so doing, continuity will allow for greater carry-over into the knowledge-base targeted for goals of energy literacy at the high school level.

The Compact also supports the Renewable Energy Education program coordinated by the Cape Cod Community College ("CCCC"). In 2004, the CCCC received a National Science Foundation Grant to build a trained workforce able to support renewable energy technologies. Students at CCCC learn about energy efficiency and renewable energy technologies and participate in hands-on diagnostics of their homes or businesses using Cape Light Compact audit protocols. The Compact is also a member of the Barnstable County Clean Energy Workforce Training program, that is a grant-funded program in part by the Cape Cod Economic Development Council and Commonwealth Corporation, that over the next 3-years will provide comprehensive training to the Cape's building trade industry in order to increase their knowledge about how to select, market, procure, and install renewable energy technologies and enhance their familiarity with energy efficiency and conservation measures and techniques.

## 8.2 Local Events

The Compact has held thirteen successful Energy Fairs. The Energy Fairs were designed to feature Compact efficiency programs and feature community "turn-in" events that focus on efficient lighting and home appliances such as air conditioners and dehumidifiers. The Compact was recognized by the Association for Energy Service Professionals (AESP) for innovation in marketing through our energy fairs. Because of the geography, there are events hosted separately for Cape Cod (Cape) and Martha's Vineyard (MV).

	Cape 2002	MV 2003	Cape 2003	MV 2004	Cape 2004	MV 2005	Cape 2005	MV 2006	Cape 2006	MV 2007	Cape 2007	MV 2008	Cape 2008
Attendance	1000	400	2000	800	1,500	500	1,500	750	1,500	800	1,000	1,200	500
Torchiere Turn-In Event	200	32	140	67	120	-	-	-	-	-	-	-	-
	968	258	1,160							-	2,143	595	361
Lamps and Fixtures sold			-	590	900	-	-	Over 480	538		-		
Dehumidifiers	300	90	620	179	620	131	611	88	447	18	295	-	124
& Air Conditioners													
(through turn-													
in)													
kWh Savings	288,000	72,405	394,000	154,770	440,000	42,182	96,600	86,152	184,086	5,796	217,141	33,915	24,441
Monetary Savings	\$40,000	\$10,136	\$55,000	\$21,667	\$62,000	\$6,300	\$15,000	\$12,900	\$33,000	\$1,159	\$43.428	\$6,783	\$4,888

Table 8.1 Results of the Energy Fairs

In the fall of 2007, the Compact improved service to customer needs by providing a lightbulb turn-in event to replace existing incandescent lightbulbs with increased incentives for ENERGY STAR® qualified lighting at the local events at multiple locations throughout the Cape. All of the Energy Fairs in 2007 and 2008 were held at and with assistance of local appliance and lighting retailers.

In addition to Energy Fairs, the Compact will continue to participate and sponsor community events that provide demonstrations of existing and emerging technologies and services in energy efficiency.

## 8.3 Marketing Materials

The Compact will continue to participate in energy efficiency service provider and utility initiatives that market energy efficiency services to targeted customer groups. Over the past years the Compact has worked successfully with energy efficiency service providers and the regional utilities to design, implement and market commercial and industrial programs, as well as the products and services programs for the residential and commercial sector.

The Compact will also dedicate resources to the development of educational materials inhouse where possible that describe the Compact's programs and the purpose of energy efficiency and more fully utilize its website <u>www.capelightcompact.org</u>. These materials and methods will help to cost-effectively increase consumer awareness about the Compact's programs and will complement the Compact's other educational efforts.

# 9. Program Monitoring and Verification Plan

In planning evaluation activities for the coming year, the Compact considers several factors including the significance of expected savings for the end-use or project in the recently completed program year, the stability of prior evaluation results for the program aspect under consideration, and expected opportunities to participate in joint-utility studies, including market assessments, in the coming year. The Compact seeks input from interested stakeholders about its evaluation plans as those plans are developed so that significant issues are addressed through the studies that the Compact sponsors.

The Compact anticipates that its evaluation and market research efforts in 2009 will also focus on developing information that will facilitate the achievement of the objectives contained in the Green Communities Act, including infrastructure related research and research about new technologies and services.

The Compact anticipates either initiating or completing the following studies in 2009:

Planned	<b>Evaluation</b>	Studies	in	$2009^{3}$
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<b>Program</b> (s)	Study	(J)oint or (C)ompact Specific <sup>4</sup>
ENERGY STAR Homes	ENERGY STAR Homes MPER and analysis of correlation between HERS index and savings	J
ENERGY STAR HVAC	Statewide evaluation efforts	J
Residential Conservation Service	RCS process evaluation, pilot evaluation, and new measure screening	J
Green Affordable Homes	TBD	С
ENERGY STAR Lighting	Program theory and PY 2008 evaluation	J
ENERGY STAR Appliances	Appliance saturation survey, process evaluation, and new measures assessment	J
Large C&I Retrofit, Government Retrofit, and Small C&I	Lighting Persistence Study	J
Small Business Services and Residential Appliances	Plug load study	J
All Programs	Technical Reference Manual	J
All Programs	Avoided Cost Study	J
All Commercial & Industrial Programs	Commercial & Industrial Market Characterization Study	J
All Programs	Infrastructure related research (e.g., wage comparability/discrepancy study, white paper on barriers to infrastructure expansion and related planning efforts	J
All Programs	Omnibus Load Shape Study	J
All Residential Programs	Other Miscellaneous Residential Evaluation	C and J

<sup>&</sup>lt;sup>3</sup> Evaluation priorities may change during the year, affecting both the timing and focus of studies actually completed.

<sup>&</sup>lt;sup>4</sup> Some of the studies identified as Company-specific may be completed with others, if feasible. Some of the studies identified as Joint may be completed as Company-specific if it is determined that a joint effort is not practical.

<b>Program</b> (s)	Study	(J)oint or (C)ompact Specific <sup>4</sup>
All Commercial & Industrial Programs	Other Miscellaneous C&I Evaluation	C and J
All Programs	Program and Regulatory Support, including support for the NEEP EMV Forum Protocols Projects	С
All Programs	Portfolio Level Precision and Confidence	С

The Compact anticipates that additional, focused studies may be required to inform program design and implementation practices and measurement and verification requirements of the Forward Capacity Market through the year. In addition, evaluation priorities may also change during the year. Changes in focus may affect the timing of studies completed during the year.

The Compact will continue to file annual reports about the progress of its energy efficiency programs. The results reported in the annual report will reflect and incorporate the findings of completed evaluation studies.

# 10. Program Names and Acronyms Used

Table 10.1 includes a comparison of the program names that are used in this Energy Efficiency Plan and the program names (by BCR Activity) used in the Compact's Annual Report on Energy Efficiency Activities submitted to DOER. The names used in the Annual Report are determined by DOER and are used consistently by all efficiency Program Administrators in Massachusetts. As indicated, some of the programs described in this EEP are included within other programs in the Annual Report.

Energy Efficiency Plan: Program Name	Annual Report to DOER: Benefit Cost Ratio Activity
Residential New Construction (Massachusetts New Homes with Energy Star®)	Residential Lost Opportunity
Residential Home Energy Services (RCS/MassSAVE)	Residential Retrofit 1-4
Residential ENERGY STAR Products and Services Lighting	Residential Lighting
Residential ENERGY STAR Products and Services Appliances	Residential Appliances
Low-Income Single-Family	Low-Income Retrofit 1-4
Low-Income Multi-Family	Low-Income Multifamily Retrofit
Low-Income New Construction and Rehabilitation	Low-Income Lost Opportunity
C&I New Construction and Rehabilitation	C&I Lost Opportunity
Large Commercial and Industrial Retrofit	Large C&I Retrofit
Small Commercial and Industrial Retrofit	Small C&I Retrofit
Government Agencies	(Included in Small C&I Retrofit)
C&I Products and Services	(Included in Large C&I Retrofit)

 Table 10.1 Comparison of Program Names Used for the EEP and the Annual Report

Table 10.2 provides a list of the Acronyms used in this Energy Efficiency Plan.

Acronym	Definition
AB	Advanced Building
ACCA	Air Conditioning Contractors of America
ACEEE	American Council for an Energy Efficient Economy
AFD	Adjustable Frequency Drives
AFUE	Annual Fuel Utilization Efficiency
AESC	Avoided Energy Supply Costs
AESP	Association of Energy Service Professionals
AHAM	Association of Home Appliance Manufacturers
ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers
BOC	Building Operators Certification
C&I	Commercial and Industrial

 Table 10.2
 List of Acronyms

CCCC	Cape Cod Community College
CEE	Consortium for Energy Efficiency
CFL	Compact Fluorescent Lamp
СНР	Combined Heat and Power
CLC	Cape Light Compact
CO2	Carbon Dioxide
DAS	Data Acquisition System
DHW	Domestic Hot Water
DOE	Department of Energy
DOER	Division of Energy Resources
DPU	Department of Public Utilities
DRIPE	Demand Reduction Induced Price Effects
ECM	Electronic Commutated Motor
EEI	Energy Efficiency Incentive
EEP	Energy Efficiency Plan
EER	Energy Efficiency Ratio
EPA	Environmental Protection Agency
FR&SP	Free-ridership and Spillover
НАС	Housing Assistance Corporation
HEA	Home Energy Assessment
HERS	Home Energy Rating System
HSPF	Heating Seasonal Performance Factor
HVAC	Heating Ventilation and Air Conditioning
HVAC	Heating, Ventilation and Air Conditioning
IFB	Invitation for Bid
ISM	Instant Savings Measure
ЈМС	Joint Management Committee
LEAN	Low-Income Energy Affordability Network
LED	Light Emitting Diode
LPD	Lighting Power Density
MAEEP	Massachusetts Energy Efficiency Partnership
M&E	Monitoring and Evaluation
MPER	Multi-Year Program Evaluation and Reporting
MTC	Massachusetts Technology Collaborative
NATE	North American Technician Excellence
NBI	New Buildings Institute
N/C	New Construction
NCP	Negotiated Cooperative Promotions
NEED	National Energy Education Development
NEEP	Northeast Energy Partnerships, Inc.
O&M	Operation and Maintenance
PEARL	Program for the Evaluation and Analysis of Residential Lighting
PV	Photovoltaic
RCS	Residential Conservation Services
REC	Renewable Energy Credit
RFP	Request for Proposal

SEER	Seasonal Energy Efficiency Rating
TRC	Total Resource Cost
TXV	Thermostatic Expansion Valve
WAP	Weatherization Assistance Programs

## 11. Appendices

- A1. Overview 2009 Program Goals
- A2. Overview Updated Summary of Program Goals for 2007-2009 All Sectors
- A3. Overview 2009 Budget Detail
- A4. Overview Updated Summary of Program Budget for 2007-2009 All Sectors
- A5. Overview 2009 Total Resource Cost (TRC) Benefit Cost Ratios
- A6. Overview Benefit Detail
- A7. Overview 2009 Air Emissions Avoided
- A8. Overview 2009 Program Savings by End Use
- B1. Program Level Budgets & Savings Goals Residential Energy Star Homes
- B2. Program Level Budgets & Savings Goals Residential Energy Star HVAC
- B3. Program Level Budgets & Savings Goals Residential RCS/MassSAVE
- B4. Program Level Budgets & Savings Goals Residential Energy Star Lighting
- B5. Program Level Budgets & Savings Goals Residential Energy Star Appliances
- B6. Program Level Budgets & Savings Goals Low Income Single Family
- B7. Program Level Budgets & Savings Goals Low Income Multi Family
- B8. Program Level Budgets & Savings Goals C&I New Construction
- B9. Program Level Budgets & Savings Goals C&I Gov't New Construction
- B10. Program Level Budgets & Savings Goals C&I Products & Services
- B11. Program Level Budgets & Savings Goals C&I Large Retrofit
- B12. Program Level Budgets & Savings Goals C&I Gov't Large Retrofit
- B13. Program Level Budgets & Savings Goals C&I Small Retrofit
- B14. Program Level Budgets & Savings Goals C&I Gov't Small Retrofit
- C1.- C4. Expansion of Existing Efforts vs. New Efforts

## Appendix A. Overview Figure 1. 2009 Program Goals

	Lifetime	Lifetime Summer	Value of Non-		Total
	Energy Savings	Demand Savings	Electric Benefits	Ne	t Benefits
Sector	(MWh)	(kW-years)	(\$000)		(\$000)
Residential	120,825	34,040	\$ 11,110	\$	26,398
Low-Income	7,554	525	\$ 5,013	\$	4,368
Commercial and Industrial	79,716	19,531	\$ 497	\$	9,872
Total	208,095	54,096	\$ 16,620	\$	40,639

Figure 2. Updated Summary of Program Goals for 2007-2009 - All Sectors

	Lifetime	Lifetime Summer	Value of Non-	Total		
	Energy Savings	Demand Savings	Electric Benefits	Net Benefits		
Year	(MWh)	(kW-years)	(\$000)	(\$000)		
2007	106,389	18,754	\$ 6,617	\$ 13,826		
2008	114,352	31,888	\$ 9,020	\$ 24,517		
2009	208,095	54,096	\$ 16,620	\$ 40,639		

#### Appendix A. Overview Figure 3. 2009 Budget Detail

BCR Activity	Program	F Pl	Program anning & Admin	N	larketing	l	Customer Incentives	ST Im	FAT, Vendor pl & Vendor QC	Me &	easurement Evaluation	To	tal Budget by Program	2 Տւ	008 Budget (including upplemental)	Increase in Budget from 2008
		•		•		•		•		•		•		•		
A02a Residential Lost Opportunity	A02a Energy Star Homes	\$	36,066	\$	21,876	\$	530,177	\$	407,052	\$	33,241	\$	1,028,413	\$	365,210	2.82
A02b Residential HVAC	A02b Energy Star HVAC	\$	10,303	\$	6,250	\$	195,875	\$	125,829	\$	9,496	\$	347,753	\$	10,000	34.78
A03a Residential Retrofit 1-4	A03a Residential Conservation Service	\$	104,925	\$	98,480	\$	1,391,090	\$	691,901	\$	73,665	\$	2,360,062	\$	1,506,455	1.57
A04a Residential Lighting	A04a Energy Star Lighting	\$	21,531	\$	13,060	\$	361,810	\$	217,371	\$	19,844	\$	633,615	\$	399,476	1.59
A04b Residential Appliances	A04b Energy Star Appliances	\$	37,056	\$	22,477	\$	80,150	\$	81,968	\$	34,153	\$	255,804	\$	368,976	0.69
Residential		\$	209,881	\$	162,143	\$	2,559,102	\$	1,524,121	\$	170,400	\$	4,625,647	\$	2,650,116	1.75
B03a Low-Income Retrofit 1-4	B03a LI Single Family	\$	48,434	\$	36,128	\$	722,022	\$	271,738	\$	44,640	\$	1,122,962	\$	671,727	1.67
B03b Low-Income Retrofit Multifamily	B03b LI Multi-Family	\$	5,382	\$	4,014	\$	316,169	\$	78,690	\$	4,960	\$	409,214	\$	93,859	4.36
Low Income		\$	53,815	\$	40,142	\$	1,038,191	\$	350,428	\$	49,600	\$	1,532,176	\$	765,586	2.00
Residential & Low Income		\$	263,696	\$	202,285	\$	3,597,293	\$	1,874,548	\$	220,000	\$	6,157,823	\$	3,415,702	1.80
C02a C&I Lost Opportunity	C02a C&I New Construction	\$	7,232	\$	4,386	\$	127,694	\$	18,073	\$	6,665	\$	164,050	\$	89,843	1.83
	C02b C&I Govt New Construction	\$	3,906	\$	2,369	\$	48,011	\$	7,498	\$	3,600	\$	65,384	\$	48,526	1.35
	C04c C&I Products & Services	\$	4.285	\$	2,599	\$	47.117	\$	71,798	\$	3.950	\$	129,749	\$	53,241	2.44
C03a Large C&I Retrofit	C03a C&I Large Retrofit	\$	18.885	Ś	23.067	\$	122,159	Ś	46.154	\$	9.725	\$	219,990	\$	131.090	1.68
3	C03c C&I Govt Large	\$	31.248	\$	18.954	\$	364,141	\$	77.643	\$	28.800	\$	520,786	\$	388,211	1.34
C03b Small C&I Retrofit	C03b C&I Small Retrofit	\$	85.052	\$	51,590	\$	1.476.057	\$	234,465	\$	78.390	\$	1.925.554	\$	1.056.662	1.82
	C03d C&I Govt Small	\$	53.023	\$	32,162	\$	665.329	Ś	84.915	\$	48.870	\$	884,299	\$	658,746	1.34
Commercial & Industrial		\$	203,630	\$	135,127	\$	2,850,509	\$	540,545	\$	180,000	\$	3,909,811	\$	2,426,320	1.61
Total		\$	467.327	\$	337.412	\$	6.447.802	\$	2.415.094	\$	400.000	\$	10.067.635			
Percent of Total		•	4.6%	·	3.4%	·	64.0%	·	24.0%	•	4.0%	•	100.0%			
2008 Budget (including Supplemental)		\$	691,385	\$	232,188	\$	3,418,284	\$	1,258,690	\$	241,475	\$	5,842,022			
Increase in Budget from 2008			0.68		1.45		1.89		1.92		1.66		1.72			

Figure 4. Updated Summary of Program Budget for 2007-2009 - All Sectors

		2007	Si	2008 (including upplemental)		2009
Total Funding Required	\$	5,031,822	\$	5,842,022	\$	10,371,942
Residential	\$	2.128.756	\$	2.650.116	\$	4.625.647
Low-Income	\$	648,746	\$	765,586	\$	1,532,176
Commercial and Industrial	\$	2,254,320	\$	2,426,320	\$	3,909,812
Total	\$	5,031,822	\$	5,842,022	\$	10,067,635
2. Borrowing Payback					\$	304,307
Established Funding Streams 1. System Benefits Charge Ecrecasted MWb Sales (based on 2007 actuals)						
Residential		1,110,359		1,110,359		1,110,359
Commercial and Industrial		944,768		944,768		944,768
Total Forecasted Sales (MWh)		2,055,127		2,055,127		2,055,127
Charge (mills/kVVn)	¢	2.5	<b></b>	2.5	<b>^</b>	2.5
l otal Collections (est.)	\$	5,137,818	\$	5,137,818	\$	5,137,818
2. Carryover from the Previous Year (est.)			\$	253,200	\$	-
3. FCM Funds (est.)					\$	240,000
4. RGGI Funds						
RGGI Auction 1 - September 2008 (act.)			\$	146,698		
RGGI Auction 2 - December 2008 (est.)					\$	146,698
RGGI Auction 3 - March 2009 (est.)					\$ ¢	146,698
RGGI Auction 4 - June 2009 (est.)			¢	146 609	ф Ф	140,098
l Ulai			Φ	140,098	φ	440,094
5. Anticipated Borrowing			\$	304,307		
6. Additional DPU Requested Funding			\$	-	\$	4,554,030

### Figure 5. 2009 Total Resource Cost (TRC) Benefit Cost Ratios

					without ADDERS			S including Capacity DF			including Capacity DRIPE			including Capacity DRIPE and Energy DRIPE		D	including RIPE, En and CO	I Capacity ergy DRIPE 2 Costs
		То	tal Costs		Total	Benefit		Total	Benefit		Total	Benefit		Total	Benefit			
		10	(000s)	E	Benefits	Cost Ratio	E	Benefits	Cost Ratio		Benefits	Cost Ratio	E	Benefits	Cost Ratio			
BCR Activity	Program		(0003)		(000s)	(TRC)		(000s)	(TRC)		(000s)	(TRC)		(000s)	(TRC)			
A02a Residential Lost Opportunity	A02a Energy Star Homes	\$	1,176	\$	3,569	3.04	\$	3,592	3.06	\$	3,650	3.10	\$	3,806	3.24			
A02b Residential HVAC	A02b Energy Star HVAC	\$	398	\$	882	2.22	\$	937	2.36	\$	957	2.41	\$	1,007	2.53			
A03a Residential Retrofit 1-4	A03a Residential Conservation Service	\$	3,915	\$	17,040	4.35	\$	17,385	4.44	\$	17,668	4.51	\$	18,521	4.73			
A04a Residential Lighting	A04a Energy Star Lighting	\$	817	\$	8,474	10.37	\$	8,691	10.64	\$	10,209	12.50	\$	12,846	15.73			
A04b Residential Appliances	A04b Energy Star Appliances	\$	555	\$	716	1.29	\$	735	1.32	\$	774	1.39	\$	854	1.54			
Residential		\$	6,860	\$	30,681	4.47	\$	31,339	4.57	\$	33,259	4.85	\$	37,034	5.40			
B03a Low-Income Retrofit 1-4	B03a LI Single Family	\$	1,123	\$	3,438	3.06	\$	3,455	3.08	\$	3,550	3.16	\$	3,739	3.33			
B03b Low-Income Retrofit Multifamily	B03b LI Multi-Family	\$	409	\$	2,336	5.71	\$	2,338	5.71	\$	2,350	5.74	\$	2,384	5.83			
Low Income	,	\$	1,532	\$	5,774	3.77	\$	5,793	3.78	\$	5,900	3.85	\$	6,123	4.00			
Residential & Low Income		\$	8,393	\$	36,455	4.34	\$	37,132	4.42	\$	39,159	4.67	\$	43,156	5.14			
C02a C&I Lost Opportunity	C02a C&I New Construction	\$	173	\$	566	3.27	\$	584	3.38	\$	620	3.58	\$	714	4.13			
	C02b C&I Govt New Construction	\$	67	\$	200	3.00	\$	207	3.10	\$	219	3.28	\$	251	3.76			
	C04c C&I Products & Services	\$	163	\$	306	1.88	Ŝ	321	1.97	\$	337	2.07	\$	376	2.30			
C03a Large C&I Retrofit	C03a C&I Large Retrofit	\$	366	\$	755	2.06	\$	784	2.14	\$	837	2.29	\$	966	2.64			
	C03c C&I Govt Large	\$	540	\$	1.538	2.85	\$	1.592	2.95	\$	1.704	3.16	\$	1.980	3.67			
C03b Small C&I Retrofit	C03b C&I Small Retrofit	\$	2.315	\$	6.716	2.90	Ŝ	6.957	3.01	\$	7.485	3.23	\$	8,739	3,78			
	C03d C&I Govt Small	\$	916	Ś	2.901	3.17	Ŝ	3.005	3.28	Ŝ	3.211	3.51	\$	3.723	4.06			
Commercial & Industrial		\$	4,539	\$	12,982	2.86	\$	13,449	2.96	\$	14,412	3.17	\$	16,749	3.69			
Total		\$	12,932	\$	49,437	3.82	\$	50,581	3.91	\$	53,571	4.14	\$	59,906	4.63			

Figure 6. Benefit Detail (including benefits from capacity and energy demand-response-induced price effects)

		Total Benefits												
					Capacity				Ene	Energy				
		Total	Genera	ation				Wi	nter	Sum	nmer			
BCR Activity	Program	Benefits	Sum	Win	Trans	MDC	DRIPE	Peak	Off Peak	Peak	Off Peak			
A - Residential		\$20,229,665	\$3,948,938	\$0	\$786,958	\$4,820,202	\$658,584	\$3,040,502	\$3,121,198	\$2,161,996	\$1,691,288			
A02a Residential Lost Opportunity	A02a Energy Star Homes	\$885,039	\$160,669	\$0	\$31,378	\$192,195	\$22,948	\$149,550	\$132,966	\$117,854	\$77,479			
A02b Residential HVAC	A02b Energy Star HVAC	\$936,588	\$291,741	\$0	\$59,421	\$363,961	\$54,879	\$88,405	\$20,873	\$44,833	\$12,475			
A03a Residential Retrofit 1-4	A03a Residential Conservation Service	\$9,858,815	\$2,865,056	\$0	\$549,643	\$3,366,623	\$344,780	\$644,937	\$676,324	\$919,153	\$492,299			
A04a Residential Lighting	A04a Energy Star Lighting	\$8,118,697	\$555,612	\$0	\$129,696	\$794,403	\$216,597	\$2,087,729	\$2,217,133	\$1,044,539	\$1,072,988			
A04b Residential Appliances	A04b Energy Star Appliances	\$430,526	\$75,861	\$0	\$16,819	\$103,019	\$19,380	\$69,881	\$73,901	\$35,617	\$36,047			
B - Low Income		\$779,752	\$56,911	\$0	\$13,233	\$81,055	\$18,145	\$197,933	\$209,254	\$101,222	\$101,998			
B03a Low-Income Retrofit 1-4	B03a LI Single Family	\$658,342	\$48,264	\$0	\$11,223	\$68,739	\$16,460	\$166,583	\$176,171	\$85,095	\$85,807			
B03b Low-Income Retrofit Multifamily	B03b LI Multi-Family	\$121,409	\$8,646	\$0	\$2,011	\$12,316	\$1,685	\$31,351	\$33,083	\$16,127	\$16,191			
C - Commercial & Industrial		\$12,952,007	\$2,359,360	\$0	\$480,732	\$2,944,531	\$467,161	\$2,442,445	\$1,579,733	\$1,705,713	\$972,332			
C02a C&I Lost Opportunity	C02a C&I New Construction	\$566,400	\$108,444	\$0	\$21,583	\$132,200	\$18,158	\$103,546	\$67,395	\$74,798	\$40,276			
	C02b C&I Govt New Construction	\$199,376	\$39,211	\$0	\$7,799	\$47,770	\$6,534	\$33,275	\$21,676	\$28,685	\$14,426			
	C04c C&I Products & Services	\$320,925	\$77,280	\$0	\$15,681	\$96,048	\$14,881	\$53,883	\$16,057	\$37,466	\$9,630			
C03a Large C&I Retrofit	C03a C&I Large Retrofit	\$754,316	\$144,540	\$0	\$29,391	\$180,020	\$28,231	\$125,790	\$82,380	\$107,380	\$56,585			
	C03c C&I Govt Large	\$1,519,068	\$273,725	\$0	\$55,782	\$341,671	\$54,257	\$302,317	\$197,264	\$185,930	\$108,122			
C03b Small C&I Retrofit	C03b C&I Small Retrofit	\$6,682,643	\$1,173,431	\$0	\$240,493	\$1,473,043	\$241,395	\$1,318,177	\$862,376	\$866,113	\$507,616			
	C03d C&I Govt Small	\$2,909,280	\$542,730	\$0	\$110,003	\$673,779	\$103,705	\$505,457	\$332,586	\$405,341	\$235,677			
Grand Total		\$33,961,424	\$6,365,209	\$0	\$1,280,923	\$7,845,789	\$1,143,890	\$5,680,880	\$4,910,185	\$3,968,931	\$2,765,618			

		[		Total Be	enefits				kW Saved		MWh	Saved
	Г		Ener	gy		Non El	lectric					
		Winter I	DRIPE	Summer DRIPE		I	Non-					
BCR Activity	Program	Peak	Off Peak	Peak	Off Peak	Resource	Resource	Sum	Win	Life	Ann	Life
	J	<b> </b>										
SedBCR Activity		<u> </u>				ResVal	NonResVal	Sum kW	Win kW	Life kW	Ann MWh	Lifet MWh
A - Residential	I	\$518,264	\$592,302	\$527,157	\$281,480	\$10,583,587	\$526,077	2,159	3,434	34,040	13,579	120,825
A02a Residential Lost Opportunity	A02a Energy Star Homes	\$15,904	\$15,868	\$18,618	\$8,102	\$2,648,119	\$58,759	74	502	1,376	, 404	5,975
A02b Residential HVAC	A02b Energy Star HVAC	\$7,878	\$2,059	\$8,924	\$1,505	\$0	\$0	186	57	' 2,485	, 119	1,895
A03a Residential Retrofit 1-4	A03a Residential Conservation Service	\$56,676	\$65,828	\$119,415	\$41,643	\$7,508,475	\$17,614	1,123	229	24,530	2,072	34,282
A04a Residential Lighting	A04a Energy Star Lighting	\$426,877	\$495,853	\$370,709	\$224,483	\$0	\$571,966	699	2,629	4,984	, 10,710	76,019
A04b Residential Appliances	A04b Energy Star Appliances	\$10,929	\$12,694	\$9,491	\$5,747	\$426,994	-\$122,262	77	16	666	274	2,654
B - Low Income	ļ	\$30,323	\$35,222	\$26,331	\$15,945	\$2,170,801	\$2,842,024	74	182	2 525	821	7,554
B03a Low-Income Retrofit 1-4	B03a LI Single Family	\$26,892	\$31,237	\$23,353	\$14,142	\$971,703	\$1,824,733	60	160	) 443	675	6,339
B03b Low-Income Retrofit Multifamily	B03b LI Multi-Family	\$3,431	\$3,985	\$2,978	\$1,803	\$1,199,098	\$1,017,291	15	22	2 81	146	1,215
C - Commercial & Industrial		\$288,678	\$205,662	\$349,618	\$118,666	\$0	\$497,325	1,507	843	3 19,531	6,178	79,716
C02a C&I Lost Opportunity	C02a C&I New Construction	\$10,637	\$7,639	\$12,741	\$4,148	\$0	\$18,000	59	28	897	225	3,448
	C02b C&I Govt New Construction	\$3,402	\$2,445	\$4,863	\$1,475	\$0	\$7,424	21	ć	324	. 77	1,177
	C04c C&I Products & Services	\$6,155	\$2,020	\$7,229	\$1,118	\$0	\$0	48	33	639	97	1,311
C03a Large C&I Retrofit	C03a C&I Large Retrofit	\$14,649	\$10,556	\$21,317	\$6,665	\$0	\$29,198	91	46	<u>1,195</u>	334	4,418
J. J	C03c C&I Govt Large	\$35,778	\$25,692	\$37,537	\$13,045	\$0	\$72,731	175	86	2,263	730	9,466
C03b Small C&I Retrofit	C03b C&I Small Retrofit	\$159.830	\$115,157	\$187.393	\$65.015	\$0	\$274,499	779	415	i 9.724	3.402	42.227
	C03d C&I Govt Small	\$58,227	\$42,154	\$78,538	\$27,200	\$0	\$95,473	335	226	3 4,489	1,313	17,669
Grand Total		\$837,265	\$833,186	\$903,107	\$416,091	\$12,754,388	\$3,865,426	3,740	4,459	54,096	20,577	208,095

CAPE LIGHT COMPACT DECEMBER 1, 2008

## Appendix A. Overview Figure 7. 2009 Air Emissions Avoided

Avoided Emissions (lbs)	SO2	NOX	CO2
2009 Annual Savings	49,612	13,197	26,932,074
2009 Lifetime Savings	501,723	133,463	272,363,808

CAPE LIGHT COMPACT DECEMBER 1, 2008

## Appendix A. Overview Figure 8. 2009 Program Savings by End Use

End Use Lighting Heating, Ventilation and Cooling Motors and Drives Refrigeration Hot Water End Use Behavior	Annual Energy Savings (MWh) 16,198 2,191 497 1,277 36 377	<ul> <li>Lighting</li> <li>Heating, Ventilation and Cooling</li> <li>Motors and Drives</li> <li>Refrigeration</li> <li>Hot Water</li> <li>End Use Behavior</li> </ul>
End Use Heating, Ventilation and Cooling Hot Water	Other Fuel Savings (MMBtu) 48,615 1 044	<ul> <li>Heating, Ventilation and Cooling</li> <li>Hot Water</li> </ul>

#### Appendix B. Program Level Budgets & Savings Goals Figure 1. Residential - Energy Star Homes

Proposed Budget	\$ 1,028,413
Net Annual Savings Goal (kWh)	403,769
TRC Benefit Cost Ratio	3.10

Measure	End Use	Quantities	Units for Quantities	Measure Life	Total Resource Cost	Incentive Cost
RNC ES Homes All Tiers (Heating)	BHVAC	150	homes	25	\$1,950	\$1,250
RNC ES Homes All Tiers (Cooling)	BHVAC	150	homes	25	\$0	\$0
RNC ES Homes All Tiers (Water Heating) RNC ES Homes 1 (Heating)	BHVAC	150	nomes	15	\$0	\$0 \$750
RNC ES Homes 1 (Cooling)	BHVAC	0		25	\$0	\$0
RNC ES Homes 1 (Water Heating)	EHoWa	0		15	\$0	\$0
RNC ES Homes 2 (Heating)	BHVAC	0		25	\$1,950	\$1,250
RNC ES Homes 2 (Cooling) RNC ES Homes 2 (Water Heating)	EHoWa	0		25	\$0 \$0	\$0 \$0
RNC ES Homes 3 (Heating)	BHVAC	0		25	\$3,000	\$2,000
RNC ES Homes 3 (Cooling)	BHVAC	0		25	\$0	\$0
RNC ES Homes 3 (Water Heating)	EHoWa	0		15	\$0	\$0
CP ES Homes (Reating)	BHVAC	0		25	\$0 \$0	\$0 \$0
CP ES Homes (Water Heating)	EHoWa	0		15	\$0	\$0
Refrigerator (savings over full life compared to new baseline equipment)	DRefr	0		13	\$0	\$0
Dishwashers	EHoWa	0		12	\$0	\$0
ES Homes Screw-in Bulbs	ALGRI	2250	bulbs	7	\$U \$10	\$0 \$10
GAF - Efficiency Tier 1 Cooling	BHVAC	8	homes	25	\$157	\$157
GAF - Efficiency Tier 1 Heating	BHVAC	8	homes	25	\$497	\$497
GAF - Efficiency Tier 1 Water Heating	EHoWa	8	homes	15	\$0	\$0
GAF - Efficiency Tier 1 Appliances	DRefr	8	homes	0 14	\$225	\$225
GAF - Efficiency Tier 2 Cooling	BHVAC	10	homes	25	\$707	\$707
GAF - Efficiency Tier 2 Heating	BHVAC	10	homes	25	\$2,284	\$2,284
GAE - Efficiency Tier 2 Water Heating	EHoWa	10	homes	15	\$50	\$50
GAF - Efficiency Tier 2 Appliances	DRefr	10	homes	14	\$175	\$175
GAF - Efficiency Tier 3 Cooling	BHVAC	13	homes	25	\$3,324	\$3,324
GAF - Efficiency Tier 3 Heating	BHVAC	13	homes	25	\$4,752	\$4,752
GAE - Efficiency Tier 3 Mater Heating	EHoWa Al abt	13	homes	15 g	\$100	\$100
GAF - Efficiency Tier 3 Appliances	DRefr	13	homes	14	\$175	\$175
GAF - Efficiency Tier 4 Cooling	BHVAC	8	homes	25	\$4,715	\$4,715
GAF - Efficiency Tier 4 Heating	BHVAC	8	homes	25	\$9,285	\$9,285
GAF - Efficiency Tier 4 Water Heating GAE - Efficiency Tier 4 Lighting	EHovva Al obt	8	homes	15	\$750	\$750
GAF - Efficiency Tier 4 Appliances	DRefr	8	homes	14	\$175	\$175
LI RNC ES Homes All Tiers (Heating)	BHVAC	8	homes	25	\$1,700	\$1,250
LI RNC ES Homes All Tiers (Cooling)	BHVAC	8	homes	25	\$0	\$0
LI RNC ES Homes All Tiers (Water Heating)	BHVAC	8	nomes	15 25	\$U \$1.450	\$U \$750
LI RNC ES Homes 1 (Cooling)	BHVAC	0		25	\$0	\$0
LI RNC ES Homes 1 (Water Heating)	EHoWa	0		15	\$0	\$0
LI RNC ES Homes 2 (Heating)	BHVAC	0		25	\$1,700	\$1,250
LI RNC ES Homes 2 (Cooling) LI RNC ES Homes 2 (Water Heating)	EHoWa	0		25	\$0 \$0	\$0 \$0
LI RNC ES Homes 3 (Heating)	BHVAC	0		25	\$3,000	\$2,000
LI RNC ES Homes 3 (Cooling)	BHVAC	0		25	\$0	\$0
LI RNC ES Homes 3 (Water Heating)	EHoWa	0		25	\$0 \$0	\$0
LI CP ES Homes (Cooling)	BHVAC	0		25	\$0 \$0	\$0
LI CP ES Homes (Water Heating)	EHoWa	0		15	\$0	\$0
LI Refrigerator (savings over full life compared to new baseline equipment)	DRefr	8	appliances	13	\$0	\$0
LI Interior Fixtures	ALght	0	appilariosa	20	\$0 \$0	\$0
LI ES Homes Screw-in Bulbs	ALght	120	bulbs	7	\$10	\$10
Major Renovation Pilot - Free CFL	ALght	250	bulbs	7	\$7	\$7
Major Renovation Pilot - Insulation, Oli Major Renovation Pilot - Insulation, Gas	BHVAC	9	homes	25	\$1,500	\$750
Major Renovation Pilot - Insulation, Electric	BHVAC	7	homes	25	\$1,500	\$750
Major Renovation Pilot - Insulation, Other Fuels	BHVAC	0		25	\$1,500	\$750
Major Renovation Pilot - Air Sealing, Oil Major Renovation Pilot - Air Sealing, Cas	BHVAC	10	homes	15	\$650	\$325
Major Renovation Pilot - Air Sealing, Cas Major Renovation Pilot - Air Sealing, Electric	BHVAC	5	homes	15	\$650	\$325
Major Renovation Pilot - Air Sealing, Other Fuels	BHVAC	1		15	\$650	\$325
Major Renovation Pilot - Duct Seal, Oil Major Renovation Pilot - Duct Seal, Gas	BHVAC	0		20	\$950	\$475
Major Renovation Pilot - Duct Seal, Gas	BHVAC	0		20	\$950 \$950	φ475 \$475
Major Renovation Pilot - Duct Seal, Other FF	BHVAC	0		20	\$950	\$475
Major Renovation Pilot - Duct Insulation, Oil	BHVAC	0		20	\$550	\$275
Major Kenovation Pilot - Duct Insulation, Gas Major Renovation Pilot - Duct Insulation, Electric	BHVAC	0		20	\$550	\$275
Major Renovation Pilot - Duct Insulation, Clearne	BHVAC	0		20	\$550	\$275
Major Renovation Pilot - Thermostats, Oil	BHVAC	2	homes	10	\$50	\$25
Major Renovation Pilot - Thermostats, Electric	BHVAC	1	homes	10	\$50	\$25
Major Renovation Pilot - Thermostats, Uther Fuels	BHVAC	3	homes	10	\$500 \$500	\$25 \$400
Major Renovation Pilot - Heating System Replacement, Gas	BHVAC	0	101103	18	\$500	\$400
Major Renovation Pilot - Heating System Replacement, Other Fuels	BHVAC	0		18	\$500	\$400
Major Renovation Pilot - Indirect Water Heater, Oil	EHoWa	1	homes	20	\$600	\$300
Major Renovation Pilot - Solar Hot Water, Electric (2-person)	EHoWa	0		20	\$9,000	\$500
Major Renovation Pilot - Solar Hot Water, Electric (3-person)	EHoWa	0		25	\$9,000	\$750
Major Renovation Pilot - Solar Hot Water, Electric (4-person)	EHoWa	0		25	\$9,000	\$1,000
Major Kenovation Pilot - Solar Hot Water, Electric (5-person)	EHoWa EHoWa	0		25	\$11,000	\$1,250
Major Renovation Pilot - DHW ISMs, Oil	EHoWa	0		7	\$17	\$17
Major Renovation Pilot - DHW ISMs, Gas	EHoWa	0		7	\$17	\$17
Major Renovation Pilot - DHW ISMs, Electric	EHoWa	0		7	\$17	\$17
Major Renovation Pilot - DHW ISMS, Other Fuels	ELL W			. 7	×17	×17
	EHoWa BHVAC	21	homes	25	\$240	\$10
Major Renovation Pilot - ES Window, Gir	EHoWa BHVAC BHVAC	0 21 0	homes	25 25	\$240 \$240	\$10 \$10
Major Renovation Pilot - E S Window, Gas Major Renovation Pilot - ES Window, Electric	EHoWa BHVAC BHVAC BHVAC	0 21 0 4	homes	25 25 25	\$240 \$240 \$240	\$10 \$10 \$10
Major Renovation Flot - ES Window, Gai Major Renovation Pilot - ES Window, Cas Major Renovation Pilot - ES Window, Clectric Major Renovation Pilot - ES Window, Other Fuels	EHoWa BHVAC BHVAC BHVAC BHVAC DPofr	0 21 0 4 4 15	homes homes homes	25 25 25 25 25	\$17 \$240 \$240 \$240 \$240 \$240	\$10 \$10 \$10 \$10 \$10 \$10 \$150

							Impact Factors							
Measure	End Use	Free-Ridership Rate	Spillover [Participant] Rate	Spillover [Non Participant] Rate	In-Service Rate	kWh Persistence	kWh Realization Rate	kWh Realization On-peak	kW-W Persistence	kW Winter Realization Rate	kW-S Persistence	kW Summer Realization Rate	NEB Persistence	NEB Realization
RNC ES Homes All Tiers (Heating)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
RNC ES Homes All Tiers (Cooling)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
RNC ES Homes All Tiers (Water Heating)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
RNC ES Homes 1 (Heating)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
RNC ES Homes 1 (Cooling)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
RNC ES Homes 1 (Water Heating) RNC ES Homes 2 (Heating)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
RNC ES Homes 2 (Cooling)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
RNC ES Homes 2 (Water Heating)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
RNC ES Homes 3 (Heating)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
RNC ES Homes 3 (Cooling)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
RNC ES Homes 3 (Water Heating)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CP ES Homes (Cooling)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CP ES Homes (Water Heating)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Refrigerator (savings over full life compared to new baseline equipment)	DRefr	35%	36%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Dishwashers	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Fixtures	ALght	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAE - Efficiency Tier 1 Cooling	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAF - Efficiency Tier 1 Heating	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAF - Efficiency Tier 1 Water Heating	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAF - Efficiency Tier 1 Lighting	ALght	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAF - Eniciency Tier 2 Cooling	DRefr	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAF - Efficiency Tier 2 Heating	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAF - Efficiency Tier 2 Water Heating	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAF - Efficiency Tier 2 Lighting	ALght	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAF - Efficiency Tier 2 Appliances	DRefr	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAF - Efficiency Tier 3 Heating	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAF - Efficiency Tier 3 Water Heating	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAF - Efficiency Tier 3 Lighting	ALght	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAF - Efficiency Tier 3 Appliances	DRefr	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAF - Efficiency Tier 4 Cooling	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAF - Efficiency Tier 4 Heating	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAF - Efficiency Tier 4 Lighting	ALght	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GAF - Efficiency Tier 4 Appliances	DRefr	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
LI RNC ES Homes All Tiers (Heating)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
LI RNC ES Homes All Tiers (Cooling)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
LI RNC ES Homes 1 (Heating)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
LI RNC ES Homes 1 (Cooling)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
LI RNC ES Homes 1 (Water Heating)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
LI RNC ES Homes 2 (Heating)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
LI RNC ES Homes 2 (Cooling)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
LI RNC ES Homes 3 (Heating)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
LI RNC ES Homes 3 (Cooling)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
LI RNC ES Homes 3 (Water Heating)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
LI CP ES Homes (Heating)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
LI CP ES Homes (Gooling)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
LI Refrigerator (savings over full life compared to new baseline equipment)	DRefr	35%	36%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
LI Dishwashers	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
LI Interior Fixtures	ALght	0%	0%	0%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Free CFI	ALght	2%	0%	0%	90%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Insulation, Oil	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Insulation, Gas	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Insulation, Electric	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Insulation, Uther Huels	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Air Sealing, Gas	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Air Sealing, Electric	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Air Sealing, Other Fuels	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Kenovation Pilot - Duct Seal, Oll Major Renovation Pilot - Duct Seal, Cas	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Duct Seal, Gas	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Duct Seal, Other FF	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Duct Insulation, Oil	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Duct Insulation, Gas	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Iviajor Renovation Pilot - Duct Insulation, Electric	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Thermostats, Oil	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Thermostats, Electric	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Thermostats, Other Fuels	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Heating System Replacement, Oil	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Heating System Replacement, Gas	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Indirect Water Heater, Oil	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Indirect Water Heater, Other Fuels	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Solar Hot Water, Electric (2-person)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Kenovation Pilot - Solar Hot Water, Electric (3-person)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Solar Hot Water, Electric (4-person)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - Solar Hot Water, Electric (6-person)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - DHW ISMs, Oil	EHoWa	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - DHW ISMs, Gas	EHoWa	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Kenovation Pilot - DHW ISMs, Electric	EHoWa	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - ES Window, Oil	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - ES Window, Gas	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - ES Window, Electric	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Major Renovation Pilot - ES Window, Other Fuels	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
major removation Pilot - Refrigerator (savings over remaining life or existing equipment)	DRefr	35%	36%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	01/011	5570	0070	570	.0070		.0070	10070	.0070	.0070	.0070	.0070	10070	10070

		Energy Savings						c	apacity Savin	city Savings			
Measure	End Use	Gross Annual kWh Saved	Winter Peak Energy %	Winter Off- Peak Energy %	Summer Peak Energy %	Summer Off- Peak Energy %	Maximum Load Reduction	Summer Coincident (%)	Winter Coincident (%)	Trans. Coincident (%)	Dist. Coincident (%)		
RNC ES Homes All Tiers (Heating)	BHVAC	700	27%	40%	13%	20%	(KVV) 2.660	0%	100%	0%	0%		
RNC ES Homes All Tiers (Cooling)	BHVAC		27%	40%	13%	20%		100%	0%	100%	100%		
RNC ES Homes All Tiers (Water Heating)	EHoWa		27%	40%	13%	20%		75%	100%	75%	75%		
RNC ES Homes 1 (Heating)	BHVAC		27%	40%	13%	20%		0%	100%	0%	0%		
RNC ES Homes 1 (Water Heating)	EHoWa		27%	40%	13%	20%		75%	100%	75%	75%		
RNC ES Homes 2 (Heating)	BHVAC		27%	40%	13%	20%		0%	100%	0%	0%		
RNC ES Homes 2 (Cooling)	BHVAC		27%	40%	13%	20%		100%	0%	100%	100%		
RNC ES Homes 2 (Water Heating)	EHoWa		27%	40%	13%	20%		75%	100%	75%	75%		
RNC ES Homes 3 (Cooling)	BHVAC		27%	40%	13%	20%		100%	0%	100%	100%		
RNC ES Homes 3 (Water Heating)	EHoWa		27%	40%	13%	20%		75%	100%	75%	75%		
CP ES Homes (Heating)	BHVAC		27%	40%	13%	20%		0%	100%	0%	0%		
CP ES Homes (Cooling)	BHVAC		27%	40%	13%	20%		100%	0%	100%	100%		
CP ES Homes (water Heating) Refrigerator (savings over full life compared to new baseline equipment)	DRefr	100	27%	40%	13%	20%	0.013	100%	82%	100%	100%		
Dishwashers	EHoWa	43	27%	40%	13%	20%	-	75%	100%	75%	75%		
Fixtures	ALght		27%	40%	13%	20%	-	8%	29%	8%	8%		
ES Homes Screw-in Bulbs	ALght	57	27%	40%	13%	20%	0.049	8%	29%	8%	8%		
GAF - Efficiency Tier 1 Cooling GAF - Efficiency Tier 1 Heating	BHVAC	410	0% 75%	25%	70%	30%	0.562	80%	0% 50%	80%	80%		
GAF - Efficiency Tier 1 Water Heating	EHoWa		27%	26%	25%	22%	-	43%	100%	43%	43%		
GAF - Efficiency Tier 1 Lighting	ALght	1,283	35%	32%	17%	16%	1.948	7%	29%	7%	7%		
GAF - Efficiency Tier 1 Appliances	DRefr	474	27%	26%	25%	22%	0.653	50%	70%	50%	50%		
GAF - Efficiency Tier 2 Cooling GAF - Efficiency Tier 2 Heating	BHVAC	433	0% 75%	0% 25%	70%	30%	0.594	80%	0% 50%	80%	80%		
GAF - Efficiency Tier 2 Water Heating	EHoWa	-	27%	26%	25%	22%	-	43%	100%	43%	43%		
GAF - Efficiency Tier 2 Lighting	ALght	1,283	35%	32%	17%	16%	1.948	7%	29%	7%	7%		
GAF - Efficiency Tier 2 Appliances	DRefr	474	27%	26%	25%	22%	0.653	50%	70%	50%	50%		
GAF - Efficiency Tier 3 Cooling	BHVAC	581	0%	0% 25%	70%	30%	0.797	80%	0% 50%	80%	80%		
GAF - Efficiency Tier 3 Water Heating	EHoWa	- 202	27%	26%	25%	22%	-	43%	100%	43%	43%		
GAF - Efficiency Tier 3 Lighting	ALght	1,283	35%	32%	17%	16%	1.948	7%	29%	7%	7%		
GAF - Efficiency Tier 3 Appliances	DRefr	474	27%	26%	25%	22%	0.653	50%	70%	50%	50%		
GAF - Efficiency Tier 4 Cooling	BHVAC	569	0%	0%	70%	30%	0.781	80%	0%	80%	80%		
GAF - Efficiency Tier 4 Heating GAF - Efficiency Tier 4 Water Heating	EHoWa	503	75% 27%	25%	25%	22%	0.210	0% 43%	50%	43%	43%		
GAF - Efficiency Tier 4 Lighting	ALght	1,283	35%	32%	17%	16%	1.948	7%	29%	7%	7%		
GAF - Efficiency Tier 4 Appliances	DRefr	474	27%	26%	25%	22%	0.653	50%	70%	50%	50%		
LI RNC ES Homes All Tiers (Heating)	BHVAC	700	27%	40%	13%	20%	2.660	0%	100%	0%	0%		
LI RNC ES Homes All Tiers (Cooling)	BHVAC		27%	40%	13%	20%		100%	0%	100%	100%		
LI RNC ES Homes 1 (Heating)	BHVAC		27%	40%	13%	20%		0%	100%	0%	0%		
LI RNC ES Homes 1 (Cooling)	BHVAC		27%	40%	13%	20%		100%	0%	100%	100%		
LI RNC ES Homes 1 (Water Heating)	EHoWa		27%	40%	13%	20%		75%	100%	75%	75%		
LI RNC ES Homes 2 (Heating)	BHVAC		27%	40%	13%	20%		0%	100%	0%	0%		
LI RNC ES Homes 2 (Couling)	EHoWa		27%	40%	13%	20%		75%	100%	75%	75%		
LI RNC ES Homes 3 (Heating)	BHVAC		27%	40%	13%	20%		0%	100%	0%	0%		
LI RNC ES Homes 3 (Cooling)	BHVAC		27%	40%	13%	20%		100%	0%	100%	100%		
LI RNC ES Homes 3 (Water Heating)	EHoWa		27%	40%	13%	20%		75%	100%	75%	75%		
LI CP ES Homes (Cooling)	BHVAC		27%	40%	13%	20%		100%	0%	100%	100%		
LI CP ES Homes (Water Heating)	EHoWa		27%	40%	13%	20%		75%	100%	75%	75%		
LI Refrigerator (savings over full life compared to new baseline equipment)	DRefr	100	27%	40%	13%	20%	0.013	100%	82%	100%	100%		
Li Dishwashers	EHoWa	43	27%	40%	13%	20%	-	75%	100%	75%	75%		
LES Homes Screw-in Bulbs	ALght	44	27%	40%	13%	20%	0.049	8%	29%	8%	8%		
Major Renovation Pilot - Free CFL	ALght	57	27%	40%	13%	20%	0.049	8%	29%	8%	8%		
Major Renovation Pilot - Insulation, Oil	BHVAC	317	0%	0%	70%	30%	0.678	100%	0%	100%	100%		
Major Renovation Pilot - Insulation, Gas	BHVAC	317	0%	0%	70%	30%	0.678	100%	0%	100%	100%		
Viajor Renovation Pilot - Insulation, Electric Maior Renovation Pilot - Insulation, Other Fuels	BHVAC	2,431	27%	40%	70%	20%	0.943	100%	28%	100%	100%		
Major Renovation Pilot - Air Sealing, Oil	BHVAC	127	0%	0%	70%	30%	0.272	100%	0%	100%	100%		
Major Renovation Pilot - Air Sealing, Gas	BHVAC	127	0%	0%	70%	30%	0.272	100%	0%	100%	100%		
Major Renovation Pilot - Air Sealing, Electric	BHVAC	971	27%	40%	13%	20%	0.377	72%	28%	72%	72%		
Major Renovation Pilot - Duct Seal, Oil	BHVAC	127	0%	0%	70%	30%	0.272	100%	0%	100%	100%		
Major Renovation Pilot - Duct Seal, Gas	BHVAC	193	0%	0%	70%	30%	0.414	100%	0%	100%	100%		
Major Renovation Pilot - Duct Seal, Electric	BHVAC	1,483	27%	40%	13%	20%	0.575	72%	28%	72%	72%		
Major Renovation Pilot - Duct Seal, Other FF	BHVAC	193	0%	0%	70%	30%	0.414	100%	0%	100%	100%		
viajor Renovation Pilot - Duct Insulation, Oli Maior Renovation Pilot - Duct Insulation, Gas	BHVAC	339	0%	0%	70%	30%	0.726	100%	0%	100%	100%		
Major Renovation Pilot - Duct Insulation, Electric	BHVAC	2,601	27%	40%	13%	20%	1.008	72%	28%	72%	72%		
Major Renovation Pilot - Duct Insulation, Other FF	BHVAC	339	0%	0%	70%	30%	0.726	100%	0%	100%	100%		
Major Renovation Pilot - Thermostats, Oil	BHVAC	-	27%	40%	13%	20%	-	0%	0%	0%	0%		
viajor Renovation Pilot - Linermostats, Electric Viajor Renovation Pilot - Thermostats, Other Fuels	BHVAC	143	27%	40%	13%	20%	0.031	3%	100%	3%	3%		
Major Renovation Pilot - Heating System Replacement. Oil	BHVAC	-	27%	40%	13%	20%	-	0%	0%	0%	0%		
Major Renovation Pilot - Heating System Replacement, Gas	BHVAC	-	27%	40%	13%	20%	-	0%	0%	0%	0%		
Major Renovation Pilot - Heating System Replacement, Other Fuels	BHVAC		27%	40%	13%	20%	-	0%	0%	0%	0%		
Wajor Kenovation Pilot - Indirect Water Heater, Oil Major Renovation Pilot - Indirect Water Heater, Other Fusion	EHoWa	-	27%	40%	13%	20%	-	0%	0%	0%	0%		
Major Renovation Filot - Solar Hot Water, Electric (2-person)	EHoWa	- 1.550	27%	40%	13%	20%	- 1.198	75%	100%	75%	75%		
Major Renovation Pilot - Solar Hot Water, Electric (3-person)	EHoWa	2,325	27%	40%	13%	20%	1.797	75%	100%	75%	75%		
Major Renovation Pilot - Solar Hot Water, Electric (4-person)	EHoWa	3,100	27%	40%	13%	20%	2.396	75%	100%	75%	75%		
Major Renovation Pilot - Solar Hot Water, Electric (5-person)	EHoWa	3,875	27%	40%	13%	20%	2.995	75%	100%	75%	75%		
Viajor Renovation Pilot - Solar Hot Water, Electric (o-person) Major Renovation Pilot - DHW ISMs, Oil	EHoWa	4,650	27%	40%	13%	20% 20%	3.594	/5% 0%	0%	/ 5% 0%	/ 5%		
Major Renovation Pilot - DHW ISMs, Gas	EHoWa	-	27%	40%	13%	20%	-	0%	0%	0%	0%		
Major Renovation Pilot - DHW ISMs, Electric	EHoWa	73	27%	40%	13%	20%	0.009	75%	100%	75%	75%		
Major Renovation Pilot - DHW ISMs, Other Fuels	EHoWa	-	27%	40%	13%	20%	-	0%	0%	0%	0%		
Major Kenovation Pilot - ES Window, Oll Major Renovation Pilot - ES Window, Cas	BHVAC	13	0%	0%	70%	30%	-	0%	0%	0%	0%		
Major Renovation Pilot - ES Window, Gas	BHVAC	- 110	27%	40%	13%	20%	- 0.040	70%	30%	70%	70%		
Major Renovation Pilot - ES Window, Other Fuels	BHVAC	13	0%	0%	70%	30%	-	0%	0%	0%	0%		
Major Renovation Pilot - Refrigerator (savings over remaining life of existing equipment)	DRefr	884	27%	40%	13%	20%	0.030	100%	82%	100%	100%		
Major Renovation Pilot - Refrigerator (savings over full life compared to new baseline equipment)	DRefr	100	27%	40%	13%	20%	0.013	100%	82%	100%	100%		

							Nor	-Electric Bene	fits					
Measure	End Use	Annual Fossil Fuel (Type)	Annual Fossi Fuel (MMBtu/Year	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year)	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year)	Annual Fossil Fuel (Type)	Annual Fossi Fuel (MMBtu/Year)	Res Water Savings (Gallons per Year)	C&I Water Savings (Gallons per Year)	C&I Sewer Savings (Gallons per Year)	Annual Non- Resource Benefit (base year dollars)	One-time Nor Resource (base year dollars)
PNC ES Homes All Tiom (Hosting)	PHVAC	1	0.00	E	62.12	11	0.00	0	0.00	0	0	0	¢.	¢0
RNC ES Homes All Tiers (Cooling)	BHVAC		0.00	3	03.12		0.00	0	0.00	U	U	0	ф -	φU
RNC ES Homes All Tiers (Water Heating)	EHoWa													
RNC ES Homes 1 (Heating)	BHVAC													
RNC ES Homes 1 (Cooling)	BHVAC													
RNC ES Homes 1 (Water Heating)	EHoWa													L
RNC ES Homes 2 (Heating)	BHVAC													l
RNC ES Homes 2 (Water Heating)	EHoWa													
RNC ES Homes 3 (Heating)	BHVAC													
RNC ES Homes 3 (Cooling)	BHVAC													
RNC ES Homes 3 (Water Heating)	EHoWa													
CP ES Homes (Heating)	BHVAC													
CP ES Homes (Cooling)	BHVAC													
CP ES Homes (Water Heating)	EHoWa	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	¢	¢0
Reingerator (savings over ruil life compared to new baseline equipment)	EHoWa	1	0.00	5	2.00	11	0.00	0	0.00	430	0	0	а - с .	\$0 \$0
Fixtures	ALght	0	0.00	0	0.00	0	0.00	0	0.00	430	0	0	\$-	\$0 \$0
ES Homes Screw-in Bulbs	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$3
GAF - Efficiency Tier 1 Cooling	BHVAC												\$ 3	\$34
GAF - Efficiency Tier 1 Heating	BHVAC	1	2.07	7	4.13								\$ 1	\$376
GAF - Efficiency Tier 1 Water Heating	EHoWa													\$0
GAF - Efficiency Tier 1 Lighting	ALght									5000			\$ 8	\$3
GAF - Efficiency Tier 1 Appliances	BHVAC									5902			\$ 3	\$36
GAF - Efficiency Tier 2 Heating	BHVAC	1	4.10	7	8.20	i							\$ 2	\$716
GAF - Efficiency Tier 2 Water Heating	EHoWa	1	0.53	7	1.07									\$88
GAF - Efficiency Tier 2 Lighting	ALght												\$8	\$3
GAF - Efficiency Tier 2 Appliances	DRefr	<u> </u>	ļ	<u> </u>				ļ		5962	ļ	<u> </u>	\$ 3	<u> </u>
GAF - Emclency Tier 3 Cooling	BHVAC	<u> </u>	0.17	-	40.00							l	\$ 4	\$48
GAF - Enricency Tier 3 Meating	BHVAC EHoW/2	1	6.47	7	12.93								<u></u> ه 2	\$1,112
GAF - Efficiency Tier 3 Viater realing	ALaht		0.70		1.40				<u> </u>	<u> </u>			\$ R	\$3 \$3
GAF - Efficiency Tier 3 Appliances	DRefr									5962			\$ 3	φū
GAF - Efficiency Tier 4 Cooling	BHVAC												\$ 4	\$47
GAF - Efficiency Tier 4 Heating	BHVAC	1	8.20	7	16.40								\$ 3	\$1,417
GAF - Efficiency Tier 4 Water Heating	EHoWa	1	1.37	7	2.73									\$226
GAF - Efficiency Tier 4 Lighting	ALght												\$ 8	\$3
GAF - Efficiency Tier 4 Appliances	DRefr			-						5962			\$ 3	
LI RNC ES Homes All Tiers (Heating)	BHVAC	1	0.00	5	63.12	11	0.00	0	0.00	0	0	0	\$-	\$0
LI RNC ES Homes All Tiers (Looling)	EHoWa													
LI RNC ES Homes 1 (Heating)	BHVAC													
LI RNC ES Homes 1 (Cooling)	BHVAC													
LI RNC ES Homes 1 (Water Heating)	EHoWa													
LI RNC ES Homes 2 (Heating)	BHVAC													
LI RNC ES Homes 2 (Cooling)	BHVAC													L
LI RNG ES Homes 2 (Water Heating)	EHowa													
LI RNC ES Homes 3 (Cooling)	BHVAC													
LI RNC ES Homes 3 (Water Heating)	EHoWa													
LI CP ES Homes (Heating)	BHVAC													
LI CP ES Homes (Cooling)	BHVAC													
LI CP ES Homes (Water Heating)	EHoWa													
LI Refrigerator (savings over full life compared to new baseline equipment)	DRefr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Li Dishwashers	EHowa	1	0.00	5	2.00	11	0.00	0	0.00	430	0	0	\$ ·	\$0
LI FS Homes Screw-in Bulbs	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	 	\$0
Major Renovation Pilot - Free CFL	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$ -	\$3
Major Renovation Pilot - Insulation, Oil	BHVAC	1	26.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Major Renovation Pilot - Insulation, Gas	BHVAC	6	28.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Major Renovation Pilot - Insulation, Electric	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$ -	\$0
Major Renovation Pilot - Insulation, Other Fuels	BHVAC	11	15.00	0	0.00	0	0.00	0	0.00	0	0	0	\$ -	\$0 \$0
Major Renovation Pilot - Air Sealing, Oli Major Renovation Pilot - Air Sealing, Gas	BHVAC	6	6.00	0	0.00	0	0.00	0	0.00	0	0	0	а - с .	30 \$0
Major Renovation Pilot - Air Sealing, Electric	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	Ő	0	\$ -	\$0
Major Renovation Pilot - Air Sealing, Other Fuels	BHVAC	11	5.00	0	0.00	0	0.00	0	0.00	0	0	0	\$ -	\$0
Major Renovation Pilot - Duct Seal, Oil	BHVAC	1	3.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Major Renovation Pilot - Duct Seal, Gas	BHVAC	6	2.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Major Renovation Pilot - Duct Seal, Electric	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Major Renovation Pilot - Duct Seal, Other FF Major Renovation Pilot - Duct Insulation, Oil	BHVAC	11	4.00	0	0.00	0	0.00	0	0.00	0	0	0	\$ ·	\$0
Major Renovation Filot - Duct Insulation, Gas	BHVAC	6	7.00	0	0.00	0	0.00	0	0.00	0	0	0	s -	\$0
Major Renovation Pilot - Duct Insulation, Electric	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	ş -	\$0
Major Renovation Pilot - Duct Insulation, Other FF	BHVAC	11	7.00	0	0.00	0	0.00	0	0.00	0	0	0	ş -	\$0
Major Renovation Pilot - Thermostats, Oil	BHVAC	1	4.40	0	0.00	0	0.00	0	0.00	0	0	0	ş -	\$0
Major Renovation Pilot - Thermostats, Electric	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$ -	\$0
Major Renovation Pilot - Thermostats, Other Fuels	BHVAC	11	4.40	0	0.00	0	0.00	0	0.00	0	0	0	\$ - ¢	\$0
Major Renovation Pilot - Heating System Replacement, Oil Major Renovation Pilot - Heating System Replacement, Gas	BHVAC	1	8.28	0	0.00	0	0.00	0	0.00	0	0	0	s -	\$0 \$0
Major Renovation Pilot - Heating System Replacement, Other Fuels	BHVAC	11	8.28	0	0.00	0	0.00	0	0.00	0	0	0	s -	\$0
Major Renovation Pilot - Indirect Water Heater, Oil	EHoWa	1	8.00	0	0.00	0	0.00	0	0.00	0	0	0	\$ -	\$0
Major Renovation Pilot - Indirect Water Heater, Other Fuels	EHoWa	11	8.00	0	0.00	0	0.00	0	0.00	0	0	0	s -	\$0
Major Renovation Pilot - Solar Hot Water, Electric (2-person)	EHoWa	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Major Renovation Pilot - Solar Hot Water, Electric (3-person)	EHoWa	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	s -	\$0
Major Renovation Pilot - Solar Hot Water, Electric (4-person)	EHoWa	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$ - ¢	\$0
Major Renovation Pilot - Solar Hot Water, Electric (5-person)	EHOWa	U	0.00	0	0.00	0	0.00	U	0.00	U	U	0	۰ ۰ د	\$U 60
Major Renovation Filot - Otial Hot water, Electric (o-person)	Eriov/a FHoWa	1	0.00	0	0.00	0	0.00	0	0.00	U 8785	0	0	s ·	ο \$0
Major Renovation Pilot - DHW ISMs, Gas	EHoWa	6	0.80	0	0.00	0	0.00	0	0.00	8785	0	0	\$ -	\$0
Major Renovation Pilot - DHW ISMs, Electric	EHoWa	0	0.00	0	0.00	0	0.00	0	0.00	8785	0	0	s -	\$0
Major Renovation Pilot - DHW ISMs, Other Fuels	EHoWa	11	0.59	0	0.00	0	0.00	0	0.00	8785	0	0	\$ -	\$0
Major Renovation Pilot - ES Window, Oil	BHVAC	1	0.33	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Major Renovation Pilot - ES Window, Gas	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$ -	\$0
Major Renovation Pilot - ES Window, Electric	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$ - ¢	\$0 \$0
Major Renovation Pilot - ES Window, Other Puels Major Renovation Pilot - Refrigerator (savings over remaining life of evicting equipment)	DRefr	0	0.33	0	0.00	0	0.00	0	0.00	0	0	0	۵ - ۲	3U \$0
Major Renovation Pilot - Refrigerator (savings over full life compared to new baseline equipment)	DRefr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	ş -	\$0
	2.100	, v	2.00		2.00	, v	2.00		2.00	, v	2	· ·	· · ·	~
# Appendix B. Program Level Budgets & Savings Goals Figure 2. Residential - Energy Star HVAC

Proposed Budget	\$ 347,753
Net Annual Savings Goal (kWh)	119,028
TRC Benefit Cost Ratio	2.41

Measure	End Use	Quantities	Units for Quantities	Measure Life	Total Resource Cost	Incentive Cost
CoolSmart AC SEER 14 (Equip) - EER 11.5-11.99	BHVAC	0	units	18	\$500	\$300
CoolSmart HP SEER 14 (Equip) -	BHVAC	0	units	18	\$500	\$300
CoolSmart AC SEER 14 => (Equip) - EER>=12	BHVAC	65	units	18	\$500	\$300
CoolSmart HP SEER 14=> (Equip)	BHVAC	4	units	18	\$500	\$300
CoolSmart AC SEER 14.5 (Equip) - EER 12 (Jan 09 ES Spec)	BHVAC	0	units	18	\$700	\$300
CoolSmart HP SEER 14.5 (Equip) - EER 12 (Jan 09 ES Spec)	BHVAC	0	units	18	\$700	\$300
CoolSmart AC SEER 15.0 => (Equip) - EER>=12.5	BHVAC	40	units	18	\$800	\$400
CoolSmart HP SEER 15.0 => (Equip)	BHVAC	14	units	18	\$800	\$400
CoolSmart AC QIV NES	BHVAC	69	units	18	\$175	\$175
CoolSmart AC QIV ES	BHVAC	8	units	18	\$175	\$175
CoolSmart HP QIV NES	BHVAC	3	units	18	\$175	\$175
CoolSmart HP QIV ES	BHVAC	0	units	18	\$175	\$175
CoolSmart AC Digital Check-up/Tune-up	BHVAC	337	units	5	\$175	\$175
CoolSmart HP Digital Check-up/Tune-up	BHVAC	4	units	5	\$175	\$175
CoolSmart Wm Air Furnace ECM (GN Reb)	BHVAC	0	units	18	\$200	\$200
Duct Sealing - 100 CFM redcution in leaks 20% of flow to 10%	BHVAC	15	units	18	\$200	\$200
Down Size 1/2 ton	BHVAC	11	units	18	\$0	\$500
Mini Splits (Ductless)	BHVAC	0	units	18	\$500	\$300
Mini Split HP SEER 14.5, EER 12 (Ductless)	BHVAC	100	units	18	\$700	\$500
Equipt Tier I or II >= 12 EER w/ Sizing	BHVAC	0	units	18	\$300	\$300
Early Replacement of equip age 13 years old, rmng life 7 years with ES Equipment, Right sizing, & QIV	BHVAC	7	units	7	\$1,000	\$1,000
Early Retirement w/ Energy Star QI	BHVAC	0	units	18	\$350	\$350
Early Retirement E*QI w/ Duct modifications	BHVAC	0	units	18	\$1,000	\$750
Brushless Furnace Fan Motor	BHVAC	0	units	18	\$400	\$400
TXV rplcment of fixed orifice	BHVAC	0	units	7	\$150	\$150
Rightsizing Tier 2 14.5/12	BHVAC	24	units	18	\$300	\$300
Rightsizing Top Tier 15/12.5	BHVAC	24	units	18	\$300	\$300

		Impact Factors												
Measure	End Use	Free- Ridership Rate	Spillover [Participant] Rate	Spillover [Non- Participant] Rate	In-Service Rate	kWh Persistence	kWh Realization Rate	kWh Realization On-peak	kW-W Persistence	kW Winter Realization Rate	kW-S Persistence	kW Summer Realization Rate	NEB Persistence	NEB Realization
CoolSmart AC SEER 14 (Equip) - EER 11.5-11.99	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CoolSmart HP SEER 14 (Equip) -	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CoolSmart AC SEER 14 => (Equip) - EER>=12	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CoolSmart HP SEER 14=> (Equip)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CoolSmart AC SEER 14.5 (Equip) - EER 12 (Jan 09 ES Spec)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CoolSmart HP SEER 14.5 (Equip) - EER 12 (Jan 09 ES Spec)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CoolSmart AC SEER 15.0 => (Equip) - EER>=12.5	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CoolSmart HP SEER 15.0 => (Equip)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CoolSmart AC QIV NES	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CoolSmart AC QIV ES	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CoolSmart HP QIV NES	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CoolSmart HP QIV ES	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CoolSmart AC Digital Check-up/Tune-up	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CoolSmart HP Digital Check-up/Tune-up	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CoolSmart Wm Air Furnace ECM (GN Reb)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Duct Sealing - 100 CFM redcution in leaks 20% of flow to 10%	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Down Size 1/2 ton	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Mini Splits (Ductless)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Mini Split HP SEER 14.5, EER 12 (Ductless)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Equipt Tier I or II >= 12 EER w/ Sizing	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Early Replacement of equip age 13 years old, rmng life 7 years with ES Equipment, Right sizing, & QIV	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Early Retirement w/ Energy Star QI	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Early Retirement E*QI w/ Duct modifications	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Brushless Furnace Fan Motor	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
TXV rplcment of fixed orifice	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Rightsizing Tier 2 14.5/12	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Rightsizing Top Tier 15/12.5	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

			Energy Savings					Capacity Savings					
Measure	End Use	Gross Annual kWh Saved	Winter Peak Energy %	Winter Off- Peak Energy %	Summer Peak Energy %	Summer Off- Peak Energy %	Maximum Load Reduction (kW)	Summer Coincident (%)	Winter Coincident (%)	Trans. Coincident (%)	Dist. Coincident (%)		
CoolSmart AC SEER 14 (Equip) - EER 11.5-11.99	BHVAC	49	0%	0%	70%	30%	0.142	85%	0%	85%	85%		
CoolSmart HP SEER 14 (Equip) -	BHVAC	465	62%	21%	12%	5%	0.347	35%	50%	35%	35%		
CoolSmart AC SEER 14 => (Equip) - EER>=12	BHVAC	49	0%	0%	70%	30%	0.273	85%	0%	85%	85%		
CoolSmart HP SEER 14=> (Equip)	BHVAC	465	62%	21%	12%	5%	0.347	67%	50%	67%	67%		
CoolSmart AC SEER 14.5 (Equip) - EER 12 (Jan 09 ES Spec)	BHVAC	72	0%	0%	70%	30%	0.273	85%	0%	85%	85%		
CoolSmart HP SEER 14.5 (Equip) - EER 12 (Jan 09 ES Spec)	BHVAC	488	62%	21%	12%	5%	0.347	67%	50%	67%	67%		
CoolSmart AC SEER 15.0 => (Equip) - EER>=12.5	BHVAC	92	0%	0%	70%	30%	0.393	85%	0%	85%	85%		
CoolSmart HP SEER 15.0 => (Equip)	BHVAC	694	62%	21%	12%	5%	0.502	67%	50%	67%	67%		
CoolSmart AC QIV NES	BHVAC	35	0%	0%	70%	30%	0.164	85%	0%	85%	85%		
CoolSmart AC QIV ES	BHVAC	35	0%	0%	70%	30%	0.164	85%	0%	85%	85%		
CoolSmart HP QIV NES	BHVAC	319	62%	21%	12%	5%	0.237	59%	50%	59%	59%		
CoolSmart HP QIV ES	BHVAC	319	62%	21%	12%	5%	0.237	59%	50%	59%	59%		
CoolSmart AC Digital Check-up/Tune-up	BHVAC	45	0%	0%	70%	30%	0.212	85%	0%	85%	85%		
CoolSmart HP Digital Check-up/Tune-up	BHVAC	354	62%	21%	12%	5%	0.257	70%	50%	70%	70%		
CoolSmart Wm Air Furnace ECM (GN Reb)	BHVAC	600	62%	21%	12%	5%	0.116	67%	50%	67%	67%		
Duct Sealing - 100 CFM redcution in leaks 20% of flow to 10%	BHVAC	212	0%	0%	70%	30%	0.300	85%	0%	85%	85%		
Down Size 1/2 ton	BHVAC	203	0%	0%	70%	30%	0.030	85%	0%	85%	85%		
Mini Splits (Ductless)	BHVAC	261	0%	0%	70%	30%	0.442	85%	0%	85%	85%		
Mini Split HP SEER 14.5, EER 12 (Ductless)	BHVAC	720	62%	21%	12%	5%	1.039	67%	50%	67%	67%		
Equipt Tier I or II >= 12 EER w/ Sizing	BHVAC	-	0%	0%	70%	30%	-	85%	0%	85%	85%		
Early Replacement of equip age 13 years old, rmng life 7 years with ES Equipment, Right sizing, & QIV	BHVAC	415	0%	0%	70%	30%	0.963	85%	0%	85%	85%		
Early Retirement w/ Energy Star QI	BHVAC	212	0%	0%	70%	30%	0.300	85%	0%	85%	85%		
Early Retirement E*QI w/ Duct modifications	BHVAC	513	0%	0%	70%	30%	0.850	85%	0%	85%	85%		
Brushless Furnace Fan Motor	BHVAC	600	62%	21%	12%	5%	0.116	67%	50%	67%	67%		
TXV rplcment of fixed orifice	BHVAC	73	0%	0%	70%	30%	0.156	85%	0%	85%	85%		
Rightsizing Tier 2 14.5/12	BHVAC	-	0%	0%	70%	30%	-	85%	0%	85%	85%		
Rightsizing Top Tier 15/12.5	BHVAC	-	0%	0%	70%	30%	-	85%	0%	85%	85%		

		Non-Electric Benefits												
Measure	End Use	Annual Fossil Fuel (Type)	Annual Fossi Fuel (MMBtu/Year )	l Annual Fossi Fuel (Type)	Annual Fossil Fuel (MMBtu/Year)	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Annual Fossi Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Res Water Savings (Gallons per Year)	C&I Water Savings (Gallons per Year)	C&I Sewer Savings (Gallons per Year)	Annual Non- Resource Benefit (base year dollars)	One-time Non- Resource (base year dollars)
CoolSmart AC SEER 14 (Equip) - EER 11.5-11.99	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
CoolSmart HP SEER 14 (Equip) -	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
CoolSmart AC SEER 14 => (Equip) - EER>=12	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
CoolSmart HP SEER 14=> (Equip)	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
CoolSmart AC SEER 14.5 (Equip) - EER 12 (Jan 09 ES Spec)	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
CoolSmart HP SEER 14.5 (Equip) - EER 12 (Jan 09 ES Spec)	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
CoolSmart AC SEER 15.0 => (Equip) - EER>=12.5	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
CoolSmart HP SEER 15.0 => (Equip)	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
CoolSmart AC QIV NES	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
CoolSmart AC QIV ES	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
CoolSmart HP QIV NES	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
CoolSmart HP QIV ES	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
CoolSmart AC Digital Check-up/Tune-up	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
CoolSmart HP Digital Check-up/Tune-up	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
CoolSmart Wm Air Furnace ECM (GN Reb)	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Duct Sealing - 100 CFM redcution in leaks 20% of flow to 10%	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Down Size 1/2 ton	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Mini Splits (Ductless)	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Mini Split HP SEER 14.5, EER 12 (Ductless)	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Equipt Tier I or II >= 12 EER w/ Sizing	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Early Replacement of equip age 13 years old, rmng life 7 years with ES Equipment, Right sizing, & QIV	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Early Retirement w/ Energy Star QI	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Early Retirement E*QI w/ Duct modifications	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Brushless Furnace Fan Motor	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
TXV rplcment of fixed orifice	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Rightsizing Tier 2 14.5/12	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Rightsizing Top Tier 15/12.5	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0

## Appendix B. Program Level Budgets & Savings Goals Figure 3. Residential - Residential Conservation Service

Proposed Budget	\$ 2,360,062
Net Annual Savings Goal (kWh)	2,071,791
TRC Benefit Cost Ratio	4.51

Measure	End Use	Quantities	Units for Quantities	Measure Life	Total Resource Cost	Incentive Cost
Free CFL	ALght	1590	bulbs	7	\$7	\$7
Free CFL (piggyback on other utility audits)	ALght	5000	bulbs	7	\$7	\$7
Torchiere	ALght	41	lamps	8	\$75	\$75
Insulation, Oil	BHVAC	418	homes	25	\$1,500	\$750
Insulation, Gas	BHVAC	418	homes	25	\$1,500	\$750
Insulation, Electric	BHVAC	300	homes	25	\$1,500	\$750
Insulation, Other Fuels	BHVAC	10	homes	25	\$1,500	\$750
Air Sealing, Oil	BHVAC	380	homes	15	\$650	\$325
Air Sealing, Gas	BHVAC	379	homes	15	\$650	\$325
Air Sealing, Electric	BHVAC	210	homes	15	\$650	\$325
Air Sealing, Other Fuels	BHVAC	20	homes	15	\$650	\$325
Duct Seal, Oil	BHVAC	10	homes	20	\$950	\$475
Duct Seal, Gas	BHVAC	10	homes	20	\$950	\$475
Duct Seal, Electric	BHVAC	0	homes	20	\$950	\$475
Duct Seal, Other FF	BHVAC	0	homes	20	\$950	\$475
Duct Insulation, Oil	BHVAC	8	homes	20	\$550	\$275
Duct Insulation, Gas	BHVAC	8	homes	20	\$550	\$275
Duct Insulation, Electric	BHVAC	0	homes	20	\$550	\$275
Duct Insulation, Other FF	BHVAC	0	homes	20	\$550	\$275
Thermostats, Qil	BHVAC	51	homes	10	\$50	\$25
Thermostats Electric	BHVAC	20	homes	10	\$50	\$25
Thermostats, Other Fuels	BHVAC	15	homes	10	\$50	\$25
Heating System Replacement, Oil	BHVAC	50	homes	18	\$500	\$400
Heating System Replacement, Gas	BHVAC	0	homes	18	\$500	\$400
Heating System Replacement, Other Fuels	BHVAC	0	homes	18	\$500	\$400
Indirect Water Heater, Oil	EHoWa	15	homes	20	\$600	\$300
Indirect Water Heater, Other Fuels	EHoWa	3	homes	20	\$600	\$300
Solar Hot Water, Electric (2-person)	EHoWa	7	homes	25	\$9,000	\$500
Solar Hot Water, Electric (3-person)	EHoWa	3	homes	25	\$9,000	\$750
Solar Hot Water, Electric (4-person)	EHoWa	1	homes	25	\$9,000	\$1,000
Solar Hot Water, Electric (5-person)	EHoWa	1	homes	25	\$11,000	\$1,000
Solar Hot Water, Electric (6-person)	EHoWa	1	homes	25	\$11,000	\$1,230
DHW/ISMe_Oil	EHoWa	10	homes	7	\$11,000 \$17	\$1,500 \$17
DHW ISMs, On	EHoWa	10	homes	7	\$17 \$17	\$17
DHW ISMs, Bas	EHoWa	10	homes	7	\$17	\$17
DHW/ISMs, Other Fuels	EHoWa	0	homes	7	¢17	\$17
ES Window, Oil	BHVAC	500	nomes	25	\$17	\$17
ES Window, Gas	BHVAC	0	WINDOWS	25	\$240	\$10
ES Window, Bast	BHVAC	100	windown	25	\$240	\$10
ES Window, Other Fuels	BHVAC	100	windows	25	\$240	\$10
Defrigerator (aquings over remaining life of evicting equipment)	DRofr	250	opplioness	20	φ24U \$244	\$10 \$150
Reingerator (savings over remaining life or existing equipment)	DRell	350	appliances	12	\$244	\$150
Doop Botrofit Bilet Electric	DKell	350	appliances	13	\$U €25.000	
Deep Retroit Filot Coo	BHVAC	1	nomes	20	\$25,000 \$25,000	\$10,000
Deep Retroll Pilot - Gas	BIIVAC	1	nomes	25	\$∠5,000	\$10,000
Deep Retroit Pilot - Oli	BHVAC	1	nomes	25	\$25,000	\$10,000
Deep Ketrotit Pilot - Propane/Other	BHVAC	U	homes	25	\$25,000	\$10,000
CHP	BHVAC	10	homes	15	\$6,500	\$2,000

		Impact Factors												
Measure	End Use	Free- Ridership Rate	Spillover [Participant] Rate	Spillover [Non- Participant] Rate	In-Service Rate	kWh Persistence	kWh Realization Rate	kWh Realization On-peak	kW-W Persistence	kW Winter Realization Rate	kW-S Persistence	kW Summer Realization Rate	NEB Persistence	NEB Realization
Free CFL	ALght	2%	0%	0%	90%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Free CFL (piggyback on other utility audits)	ALght	2%	0%	0%	90%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Torchiere	ALght	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Insulation, Oil	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Insulation, Gas	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Insulation, Electric	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Insulation, Other Fuels	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Air Sealing, Oil	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Air Sealing, Gas	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Air Sealing, Electric	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Air Sealing, Other Fuels	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Duct Seal, Oil	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Duct Seal, Gas	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Duct Seal, Electric	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Duct Seal, Other EF	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Duct Insulation. Oil	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Duct Insulation, Gas	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Duct Insulation, Electric	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Duct Insulation, Other FF	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Thermostats Oil	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Thermostates Electric	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Thermostate, 2164115	BHVAC	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heating System Replacement, Oil	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heating System Replacement, Gas	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heating System Replacement, Other Fuels	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Indirect Water Heater Oil	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Indirect Water Heater, Other Fuels	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Solar Hot Water Electric (2-person)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Solar Hot Water, Electric (2-person)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Solar Hot Water, Electric (4-person)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Solar Hot Water, Electric (4-person)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Solar Hot Water, Electric (5-person)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	EHoWa	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
DHW ISMs, OI	EHoWa	2 /6	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
DHW ISMs, Gas	EHoWa	2 /6	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
DHW ISMS, Electric	EHoWa	2%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
ES Window, Oil	PHVAC	2 %	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
ES Window, On	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
ES Window, Gas	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
ES Window, Electric	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
ES window, Other Fuels	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Reingerator (savings over remaining life or existing equipment)	DKetr	35%	36%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Reingerator (savings over full life compared to new baseline equipment)	DKerr	35%	36%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Deep Ketrofit Pilot - Electric	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Deep Ketrotit Pilot - Gas	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Deep Retroit Pilot - Oil	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Deep Retrotit Pilot - Propane/Other	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
ICHP CHP	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

			Capacity Savings								
Measure	End Use	Gross Annual kWh Saved	Winter Peak Energy %	Winter Off- Peak Energy %	Summer Peak Energy %	Summer Off- Peak Energy %	Maximum Load Reduction	Summer Coincident (%)	Winter Coincident (%)	Trans. Coincident (%)	Dist. Coincident (%)
Free CFI	Alaht	57	27%	40%	13%	20%	0.049	8%	29%	8%	8%
Free CEL (piggyback on other utility audits)	Alght	57	27%	40%	13%	20%	0.049	8%	20%	8%	8%
	Alght	130	27%	40%	13%	20%	0.045	8%	20%	8%	8%
	BHVAC	317	0%	-10%	70%	30%	0.678	100%	0%	100%	100%
Insulation, Gas	BHVAC	317	0%	0%	70%	30%	0.678	100%	0%	100%	100%
	BHVAC	2 431	27%	40%	13%	20%	0.943	72%	28%	72%	72%
Insulation, Other Fuels	BHVAC	317	0%	0%	70%	30%	0.678	100%	0%	100%	100%
Air Sealing, Oil	BHVAC	127	0%	0%	70%	30%	0.272	100%	0%	100%	100%
Air Sealing, Gas	BHVAC	127	0%	0%	70%	30%	0.272	100%	0%	100%	100%
Air Sealing, Electric	BHVAC	971	27%	40%	13%	20%	0.377	72%	28%	72%	72%
Air Sealing, Other Fuels	BHVAC	127	0%	0%	70%	30%	0.272	100%	0%	100%	100%
Duct Seal, Oil	BHVAC	193	0%	0%	70%	30%	0.414	100%	0%	100%	100%
Duct Seal, Gas	BHVAC	193	0%	0%	70%	30%	0.414	100%	0%	100%	100%
Duct Seal, Electric	BHVAC	1,483	27%	40%	13%	20%	0.575	72%	28%	72%	72%
Duct Seal, Other FF	BHVAC	193	0%	0%	70%	30%	0.414	100%	0%	100%	100%
Duct Insulation, Oil	BHVAC	339	0%	0%	70%	30%	0.726	100%	0%	100%	100%
Duct Insulation, Gas	BHVAC	339	0%	0%	70%	30%	0.726	100%	0%	100%	100%
Duct Insulation, Electric	BHVAC	2,601	27%	40%	13%	20%	1.008	72%	28%	72%	72%
Duct Insulation, Other FF	BHVAC	339	0%	0%	70%	30%	0.726	100%	0%	100%	100%
Thermostats, Oil	BHVAC	-	27%	40%	13%	20%	-	0%	0%	0%	0%
Thermostats, Electric	BHVAC	143	27%	40%	13%	20%	0.031	3%	100%	3%	3%
Thermostats, Other Fuels	BHVAC	-	27%	40%	13%	20%	-	0%	0%	0%	0%
Heating System Replacement, Oil	BHVAC	-	27%	40%	13%	20%	-	0%	0%	0%	0%
Heating System Replacement, Gas	BHVAC	-	27%	40%	13%	20%	-	0%	0%	0%	0%
Heating System Replacement, Other Fuels	BHVAC	-	27%	40%	13%	20%	-	0%	0%	0%	0%
Indirect Water Heater, Oil	EHoWa	-	27%	40%	13%	20%	-	0%	0%	0%	0%
Indirect Water Heater, Other Fuels	EHoWa	-	27%	40%	13%	20%	-	0%	0%	0%	0%
Solar Hot Water, Electric (2-person)	EHoWa	1,550	27%	40%	13%	20%	1.198	75%	100%	75%	75%
Solar Hot Water, Electric (3-person)	EHoWa	2,325	27%	40%	13%	20%	1.797	75%	100%	75%	75%
Solar Hot Water, Electric (4-person)	EHoWa	3,100	27%	40%	13%	20%	2.396	75%	100%	75%	75%
Solar Hot Water, Electric (5-person)	EHoWa	3,875	27%	40%	13%	20%	2.995	75%	100%	75%	75%
Solar Hot Water, Electric (6-person)	EHoWa	4,650	27%	40%	13%	20%	3.594	75%	100%	75%	75%
DHW ISMs, Oil	EHoWa	-	27%	40%	13%	20%	-	0%	0%	0%	0%
DHW ISMs, Gas	EHoWa	-	27%	40%	13%	20%	-	0%	0%	0%	0%
DHW ISMs, Electric	EHoWa	73	27%	40%	13%	20%	0.009	75%	100%	75%	75%
DHW ISMs, Other Fuels	EHoWa	-	27%	40%	13%	20%	-	0%	0%	0%	0%
ES Window, Oil	BHVAC	13	0%	0%	70%	30%	-	0%	0%	0%	0%
ES Window, Gas	BHVAC	-	0%	0%	70%	30%	-	0%	0%	0%	0%
ES Window, Electric	BHVAC	110	27%	40%	13%	20%	0.040	70%	30%	70%	70%
ES Window, Other Fuels	BHVAC	13	0%	0%	70%	30%	-	0%	0%	0%	0%
Refrigerator (savings over remaining life of existing equipment)	DRefr	884	27%	40%	13%	20%	0.030	100%	82%	100%	100%
Refrigerator (savings over full life compared to new baseline equipment)	DRefr	100	27%	40%	13%	20%	0.013	100%	82%	100%	100%
Deep Retrotit Pilot - Electric	BHVAC	4,566	27%	40%	13%	20%	9.491	100%	0%	100%	100%
Deep Retrotit Pilot - Gas	BHVAC	577	27%	40%	13%	20%	1.235	100%	0%	100%	100%
Deep Retrofit Pilot - Oil	BHVAC	594	27%	40%	13%	20%	0.230	72%	28%	72%	72%
Deep Retrotit Pilot - Propane/Other	BHVAC	594	27%	40%	13%	20%	1.235	100%	0%	100%	100%
СНР	BHVAC	4,602	27%	40%	13%	20%	1.000	100%	100%	100%	100%

		Non-Electric Benefits												
Measure	End Use	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year)	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Res Water Savings (Gallons per Year)	C&I Water Savings (Gallons per Year)	C&I Sewer Savings (Gallons per Year)	Annual Non- Resource Benefit (base year dollars)	One-time Non- Resource (base year dollars)
Free CFL	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$3
Free CFL (piggyback on other utility audits)	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$3
Torchiere	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Insulation, Oil	BHVAC	1	26.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Insulation, Gas	BHVAC	6	28.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Insulation, Electric	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Insulation, Other Fuels	BHVAC	11	15.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Air Sealing, Oil	BHVAC	1	6.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Air Sealing, Gas	BHVAC	6	6.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Air Sealing, Electric	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Air Sealing, Other Fuels	BHVAC	11	5.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Duct Seal, Oil	BHVAC	1	3.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Duct Seal, Gas	BHVAC	6	2.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Duct Seal, Electric	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Duct Seal, Other FF	BHVAC	11	4.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Duct Insulation, Oil	BHVAC	1	9.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Duct Insulation, Gas	BHVAC	6	7.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Duct Insulation, Electric	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Duct Insulation, Other FF	BHVAC	11	7.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Thermostats, Oil	BHVAC	1	4.40	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Thermostats, Electric	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Thermostats, Other Fuels	BHVAC	11	4.40	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Heating System Replacement, Oil	BHVAC	1	8.28	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Heating System Replacement, Gas	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Heating System Replacement, Other Fuels	BHVAC	11	8.28	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Indirect Water Heater, Oil	EHoWa	1	8.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Indirect Water Heater, Other Fuels	EHoWa	11	8.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Solar Hot Water, Electric (2-person)	EHoWa	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Solar Hot Water, Electric (3-person)	EHoWa	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Solar Hot Water, Electric (4-person)	EHoWa	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Solar Hot Water, Electric (5-person)	EHoWa	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Solar Hot Water, Electric (6-person)	EHoWa	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
DHW ISMs, Oil	EHoWa	1	0.61	0	0.00	0	0.00	0	0.00	8785	0	0	\$-	\$0
DHW ISMs, Gas	EHoWa	6	0.80	0	0.00	0	0.00	0	0.00	8785	0	0	\$-	\$0
DHW ISMs, Electric	EHoWa	0	0.00	0	0.00	0	0.00	0	0.00	8785	0	0	\$-	\$0
DHW ISMs, Other Fuels	EHoWa	11	0.59	0	0.00	0	0.00	0	0.00	8785	0	0	\$-	\$0
ES Window, Oil	BHVAC	1	0.33	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
ES Window, Gas	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
ES Window, Electric	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
ES Window, Other Fuels	BHVAC	11	0.33	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Refrigerator (savings over remaining life of existing equipment)	DRefr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Refrigerator (savings over full life compared to new baseline equipment)	DRefr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Deep Retrofit Pilot - Electric	BHVAC	1	42.03	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Deep Retrofit Pilot - Gas	BHVAC	6	44.20	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Deep Retrofit Pilot - Oil	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$ -	\$0
Deep Retrofit Pilot - Propane/Other	BHVAC	11	26.43	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
CHP	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0

# Appendix B. Program Level Budgets & Savings Goals Figure 4. Residential - Energy Star Lighting

Proposed Budget	\$ 633,615
Net Annual Savings Goal (kWh)	10,709,780
TRC Benefit Cost Ratio	12.50

Measure	End Use	Quantities	Units for Quantities	Measure Life	Total Resource Cost	Incentive Cost
Screw-in Bulbs (incl. NCP and rebates)	ALght	157130	bulbs	7	\$3	\$2
Indoor Fixture	ALght	2150	fixtures	20	\$19	\$15
Outdoor Fixture	ALght	1080	fixtures	6	\$16	\$10
Torchiere	ALght	0	units	8	\$20	\$15
LED Fixtures	ALght	150	fixtures	20	\$120	\$30

								Impact Factors	5					
Measure	End Use	Free- Ridership Rate	Spillover [Participant] Rate	Spillover [Non- Participant] Rate	In-Service Rate	kWh Persistence	kWh Realization Rate	kWh Realization On-peak	kW-W Persistence	kW Winter Realization Rate	kW-S Persistence	kW Summer Realization Rate	NEB Persistence	NEB Realization
Screw-in Bulbs (incl. NCP and rebates)	ALght	0%	0%	0%	117%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Indoor Fixture	ALght	8%	4%	0%	95%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Outdoor Fixture	ALght	12%	7%	0%	87%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Torchiere	ALght	6%	3%	0%	83%	100%	100%	100%	100%	100%	100%	100%	100%	100%
LED Fixtures	ALght	0%	0%	0%	73%	100%	100%	100%	100%	100%	100%	100%	100%	100%

				Energy Saving	S		Capacity Savings						
Measure	End Use	Gross Annual kWh Saved	Winter Peak Energy %	Winter Off- Peak Energy %	Summer Peak Energy %	Summer Off- Peak Energy %	Maximum Load Reduction (kW)	Summer Coincident (%)	Winter Coincident (%)	Trans. Coincident (%)	Dist. Coincident (%)		
Screw-in Bulbs (incl. NCP and rebates)	ALght	57	27%	40%	13%	20%	0.049	8%	29%	8%	8%		
Indoor Fixture	ALght	44	27%	40%	13%	20%	0.049	8%	29%	8%	8%		
Outdoor Fixture	ALght	156	27%	40%	13%	20%	0.095	8%	29%	8%	8%		
Torchiere	ALght	139	27%	40%	13%	20%	0.116	8%	29%	8%	8%		
LED Fixtures	ALght	48	27%	40%	13%	20%	0.039	8%	29%	8%	8%		

							No	n-Electric Bene	efits					
Measure	End Use	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Res Water Savings (Gallons per Year)	C&I Water Savings (Gallons per Year)	C&I Sewer Savings (Gallons per Year)	Annual Non- Resource Benefit (base year dollars)	One-time Non- Resource (base year dollars)						
Screw-in Bulbs (incl. NCP and rebates)	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$3
Indoor Fixture	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$4
Outdoor Fixture	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$4
Torchiere	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
LED Fixtures	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$ 3	\$0

# Appendix B. Program Level Budgets & Savings Goals Figure 5. Residential - Energy Star Appliances

Proposed Budget	\$ 255,804
Net Annual Savings Goal (kWh)	274,183
TRC Benefit Cost Ratio	1.39

Measure	End Use	Quantities	Units for Quantities	Measure Life	Total Resource Cost	Incentive Cost
AC (retirement value)	BHVAC	400	appliances	4	\$30	\$30
AC (energy star value)	BHVAC	400	appliances	12	\$0	\$0
AC (retirement value) turn-in	BHVAC	300	appliances	4	\$112	\$43
AC (energy star value) turn-in	BHVAC	300	appliances	12	\$0	\$0
ECM Heat (CLC-specific)	BHVAC	100	appliances	20	\$400	\$200
Clothes Washer - oil	EHoWa	0	appliances	11	\$450	\$75
Clothes Washer - gas	EHoWa	0	appliances	11	\$450	\$75
Clothes Washer - electric	EHoWa	0	appliances	11	\$450	\$75
Dehumidifiers (retirement value) turn-in	BHVAC	300	appliances	4	\$74	\$43
Dehumidifiers (energy star value) turn-in	BHVAC	300	appliances	12	\$0	\$0
Refrigerator (savings over full life compared to new baseline equipment)	DRefr	370	appliances	13	\$30	\$30
2nd Refrigerator Removal	DRefr	10	appliances	5	\$175	\$75
Consumer Electronics - TVs	HEUBe	500	appliances	6	\$500	\$10
Consumer Electronics - Set Top Boxes	HEUBe	500	appliances	4	\$3	\$3
Consumer Electronics - Smart Strips	HEUBe	100	appliances	5	\$50	\$10
Pool Pumps	CMoDr	30	appliances	10	\$100	\$100

								Impact Factors						
Measure	End Use	Free- Ridership Rate	Spillover [Participant] Rate	Spillover [Non- Participant] Rate	In-Service Rate	kWh Persistence	kWh Realization Rate	kWh Realization On-peak	kW-W Persistence	kW Winter Realization Rate	kW-S Persistence	kW Summer Realization Rate	NEB Persistence	NEB Realization
AC (retirement value)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
AC (energy star value)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
AC (retirement value) turn-in	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
AC (energy star value) turn-in	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
ECM Heat (CLC-specific)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Clothes Washer - oil	EHoWa	10%	0%	0%	27%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Clothes Washer - gas	EHoWa	10%	0%	0%	27%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Clothes Washer - electric	EHoWa	10%	0%	0%	27%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Dehumidifiers (retirement value) turn-in	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Dehumidifiers (energy star value) turn-in	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Refrigerator (savings over full life compared to new baseline equipment)	DRefr	35%	36%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
2nd Refrigerator Removal	DRefr	35%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Consumer Electronics - TVs	HEUBe	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Consumer Electronics - Set Top Boxes	HEUBe	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Consumer Electronics - Smart Strips	HEUBe	0%	0%	0%	75%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Pool Pumps	CMoDr	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

		Energy Savings					Capacity Savings						
Measure	End Use	Gross Annual kWh Saved	Winter Peak Energy %	Winter Off- Peak Energy %	Summer Peak Energy %	Summer Off- Peak Energy %	Maximum Load Reduction (kW)	Summer Coincident (%)	Winter Coincident (%)	Trans. Coincident (%)	Dist. Coincident (%)		
AC (retirement value)	BHVAC	56	27%	40%	13%	20%	0.112	30%	0%	30%	30%		
AC (energy star value)	BHVAC	49	27%	40%	13%	20%	0.105	30%	0%	30%	30%		
AC (retirement value) turn-in	BHVAC	56	27%	40%	13%	20%	0.112	30%	0%	30%	30%		
AC (energy star value) turn-in	BHVAC	49	27%	40%	13%	20%	0.105	30%	0%	30%	30%		
ECM Heat (CLC-specific)	BHVAC	360	27%	40%	13%	20%	0.240	0%	50%	0%	0%		
Clothes Washer - oil	EHoWa	29	27%	40%	13%	20%	0.037	50%	70%	50%	50%		
Clothes Washer - gas	EHoWa	29	27%	40%	13%	20%	0.037	50%	70%	50%	50%		
Clothes Washer - electric	EHoWa	439	27%	40%	13%	20%	0.560	50%	70%	50%	50%		
Dehumidifiers (retirement value) turn-in	BHVAC	30	27%	40%	13%	20%	0.021	80%	0%	80%	80%		
Dehumidifiers (energy star value) turn-in	BHVAC	85	27%	40%	13%	20%	0.059	80%	0%	80%	80%		
Refrigerator (savings over full life compared to new baseline equipment)	DRefr	100	27%	40%	13%	20%	0.013	100%	82%	100%	100%		
2nd Refrigerator Removal	DRefr	325	27%	40%	13%	20%	0.043	100%	92%	100%	100%		
Consumer Electronics - TVs	HEUBe	52	27%	40%	13%	20%	0.006	30%	0%	30%	30%		
Consumer Electronics - Set Top Boxes	HEUBe	70	27%	40%	13%	20%	0.008	30%	0%	30%	30%		
Consumer Electronics - Smart Strips	HEUBe	175	27%	40%	13%	20%	0.060	30%	0%	30%	30%		
Pool Pumps	CMoDr	552	27%	40%	13%	20%	0.400	30%	0%	30%	30%		

							No	on-Electric Bene	efits					
Measure	End Use	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year)	Res Water Savings (Gallons per Year)	C&I Water Savings (Gallons per Year)	C&I Sewer Savings (Gallons per Year)	Annual Non- Resource Benefit (base year dollars)	One-time Non- Resource (base year dollars)						
AC (retirement value)	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
AC (energy star value)	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
AC (retirement value) turn-in	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
AC (energy star value) turn-in	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
ECM Heat (CLC-specific)	BHVAC	1	16.50	0	0.00	0	0.00	0	0.00	0	0	0	\$ (75	\$0
Clothes Washer - oil	EHoWa	1	1.40	0	0.00	0	0.00	0	0.00	8893	0	0	\$ 18	\$0
Clothes Washer - gas	EHoWa	5	1.40	0	0.00	0	0.00	0	0.00	8893	0	0	\$ 18	\$0
Clothes Washer - electric	EHoWa	0	0.00	0	0.00	0	0.00	0	0.00	8893	0	0	\$ 18	\$0
Dehumidifiers (retirement value) turn-in	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$ 1	\$0
Dehumidifiers (energy star value) turn-in	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Refrigerator (savings over full life compared to new baseline equipment)	DRefr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
2nd Refrigerator Removal	DRefr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Consumer Electronics - TVs	HEUBe	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Consumer Electronics - Set Top Boxes	HEUBe	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Consumer Electronics - Smart Strips	HEUBe	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Pool Pumps	CMoDr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0

# Appendix B. Program Level Budgets & Savings Goals Figure 6. Low Income - Single Family

Proposed Budget	\$ 1,122,962
Net Annual Savings Goal (kWh)	674,677
TRC Benefit Cost Ratio	3.16

Measure	End Use	Quantities	Units for Quantities	Measure Life	Total Resource Cost	Incentive Cost
Baseload	HEUBe	1115	homes	5	\$96	\$96
Mini AMP	DRefr	0		19	\$680	\$680
Electric Wx	BHVAC	40	homes	20	\$2,000	\$2,000
Oil Wx	BHVAC	110	homes	20	\$2,000	\$2,000
Heating System Retrofit - Oil	BHVAC	10	homes	18	\$4,500	\$4,500
CFL's	ALght	3220	bulbs	16	\$19	\$19
Fixtures	ALght	0		20	\$96	\$96
Torchiere	ALght	90	units	8	\$20	\$20
Refrigerator (savings over remaining life of existing equipment)	DRefr	211	appliances	5	\$700	\$700
Refrigerator (savings over full life compared to new baseline equipment)	DRefr	211	appliances	19	\$0	\$0
Replacement Freezer	DRefr	0		19	\$405	\$405
Waterbed	EHoWa	0		20	\$440	\$440
DHWater Measure (elec)	EHoWa	90	units	7	\$17	\$17
DHWater Measure (OIL)	EHoWa	125	units	7	\$17	\$17
DHWater Measure (gas&other)	EHoWa	90	units	7	\$17	\$17
AC or POOL Timer	HEUBe	0		5	\$17	\$17
Dehumidifiers retirement value (CLC-specific)	BHVAC	0		4	\$74	\$74
Dehumidifiers energy star value (CLC-specific)	BHVAC	0		12	\$0	\$0
Fuel switching (CLC-specific)	BHVAC	7	homes	20	\$7,800	\$7,800
Window AC Replacements	BHVAC	0		12	\$290	\$290
Tstats - Electric	BHVAC	0		10	\$100	\$100
Tstats - Oil	BHVAC	0		10	\$100	\$100
Tstats - Other	BHVAC	0		10	\$100	\$100

							I	mpact Factors						
Measure	End Use	Free- Ridership Rate	Spillover [Participant] Rate	Spillover [Non- Participant] Rate	In-Service Rate	kWh Persistence	kWh Realization Rate	kWh Realization On-peak	kW-W Persistence	kW Winter Realization Rate	kW-S Persistence	kW Summer Realization Rate	NEB Persistence	NEB Realization
Baseload	HEUBe	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Mini AMP	DRefr	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Electric Wx	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Oil Wx	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heating System Retrofit - Oil	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CFL's	ALght	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Fixtures	ALght	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Torchiere	ALght	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Refrigerator (savings over remaining life of existing equipment)	DRefr	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Refrigerator (savings over full life compared to new baseline equipment)	DRefr	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Replacement Freezer	DRefr	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Waterbed	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
DHWater Measure (elec)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
DHWater Measure (OIL)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
DHWater Measure (gas&other)	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
AC or POOL Timer	HEUBe	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Dehumidifiers retirement value (CLC-specific)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Dehumidifiers energy star value (CLC-specific)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Fuel switching (CLC-specific)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Window AC Replacements	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Tstats - Electric	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Tstats - Oil	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Tstats - Other	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

				Energy Saving	s		Capacity Savings						
Measure	End Use	Gross Annual kWh Saved	Winter Peak Energy %	Winter Off- Peak Energy %	Summer Peak Energy %	Summer Off- Peak Energy %	Maximum Load Reduction (kW)	Summer Coincident (%)	Winter Coincident (%)	Trans. Coincident (%)	Dist. Coincident (%)		
Baseload	HEUBe	272	27%	40%	13%	20%	0.074	35%	100%	35%	35%		
Mini AMP	DRefr	704	27%	40%	13%	20%	0.093	100%	92%	100%	100%		
Electric Wx	BHVAC	297	27%	40%	13%	20%	0.037	3%	100%	3%	3%		
Oil Wx	BHVAC	55	27%	40%	13%	20%	0.007	3%	100%	3%	3%		
Heating System Retrofit - Oil	BHVAC	55	27%	40%	13%	20%	0.007	3%	100%	3%	3%		
CFL's	ALght	34	27%	40%	13%	20%	0.009	35%	100%	35%	35%		
Fixtures	ALght	128	27%	40%	13%	20%	0.035	35%	100%	35%	35%		
Torchiere	ALght	139	27%	40%	13%	20%	0.119	0%	0%	0%	0%		
Refrigerator (savings over remaining life of existing equipment)	DRefr	624	27%	40%	13%	20%	0.083	100%	92%	100%	100%		
Refrigerator (savings over full life compared to new baseline equipment)	DRefr	80	27%	40%	13%	20%	0.010	100%	92%	100%	100%		
Replacement Freezer	DRefr	576	27%	40%	13%	20%	0.076	100%	92%	100%	100%		
Waterbed	EHoWa	1,230	27%	40%	13%	20%	0.154	75%	100%	75%	75%		
DHWater Measure (elec)	EHoWa	20	27%	40%	13%	20%	0.016	75%	100%	75%	75%		
DHWater Measure (OIL)	EHoWa	-	27%	40%	13%	20%	0.016	0%	0%	0%	0%		
DHWater Measure (gas&other)	EHoWa	-	27%	40%	13%	20%	0.016	0%	0%	0%	0%		
AC or POOL Timer	HEUBe	-	27%	40%	13%	20%	-	0%	0%	0%	0%		
Dehumidifiers retirement value (CLC-specific)	BHVAC	30	27%	40%	13%	20%	0.021	80%	0%	80%	80%		
Dehumidifiers energy star value (CLC-specific)	BHVAC	85	27%	40%	13%	20%	0.059	80%	0%	80%	80%		
Fuel switching (CLC-specific)	BHVAC	11,500	27%	40%	13%	20%	7.667	0%	50%	0%	0%		
Window AC Replacements	BHVAC	100	27%	40%	13%	20%	0.214	100%	2%	100%	100%		
Tstats - Electric	BHVAC	244	27%	40%	13%	20%	0.031	3%	100%	3%	3%		
Tstats - Oil	BHVAC	-	27%	40%	13%	20%	-	3%	100%	3%	3%		
Tstats - Other	BHVAC	-	27%	40%	13%	20%	-	3%	100%	3%	3%		

		Non-Electric Benefits													
Measure	End Use	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year)	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Res Water Savings (Gallons per Year)	C&I Water Savings (Gallons per Year)	C&I Sewer Savings (Gallons per Year)	Annual Reso Benefit year do	Non- urce (base ollars)	One-time Non- Resource (base year dollars)
Baseload	HEUBe	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	6	\$70
Mini AMP	DRefr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	14	\$270
Electric Wx	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	240	\$4,404
Oil Wx	BHVAC	1	25.20	0	0.00	0	0.00	0	0.00	0	0	0	\$	204	\$6,710
Heating System Retrofit - Oil	BHVAC	1	40.60	0	0.00	0	0.00	0	0.00	0	0	0	\$	1	\$10,689
CFL's	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	1	\$3
Fixtures	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	3	\$4
Torchiere	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	3	\$0
Refrigerator (savings over remaining life of existing equipment)	DRefr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	18	\$200
Refrigerator (savings over full life compared to new baseline equipment)	DRefr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	2	\$0
Replacement Freezer	DRefr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	12	\$200
Waterbed	EHoWa	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	25	\$0
DHWater Measure (elec)	EHoWa	0	0.00	0	0.00	0	0.00	0	0.00	8785	0	0	\$	0	\$0
DHWater Measure (OIL)	EHoWa	1	3.66	0	0.00	0	0.00	0	0.00	8785	0	0	\$	0	\$0
DHWater Measure (gas&other)	EHoWa	5	3.66	0	0.00	0	0.00	0	0.00	8785	0	0	\$	0	\$0
AC or POOL Timer	HEUBe	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	-	\$0
Dehumidifiers retirement value (CLC-specific)	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	1	\$0
Dehumidifiers energy star value (CLC-specific)	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	2	\$0
Fuel switching (CLC-specific)	BHVAC	6	-46.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	219	\$70
Window AC Replacements	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	2	\$0
Tstats - Electric	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	-	\$0
Tstats - Oil	BHVAC	1	7.50	0	0.00	0	0.00	0	0.00	0	0	0	\$	-	\$0
Tstats - Other	BHVAC	11	7.50	0	0.00	0	0.00	0	0.00	0	0	0	\$	-	\$0

### Appendix B. Program Level Budgets & Savings Goals Figure 7. Low Income - Multi Family

Proposed Budget	\$ 409,214
Net Annual Savings Goal (kWh)	146,098
TRC Benefit Cost Ratio	5.74

Measure	End Use	Quantities	Units for Quantities	Measure Life	Total Resource Cost	Incentive Cost
CFL	ALght	940	bulbs	16	\$19	\$19
Torchiere	ALght	110	units	8	\$78	\$78
Refrigerator (savings over remaining life of existing equipment)	DRefr	110	appliances	1	\$700	\$700
Refrigerator (savings over full life compared to new baseline equipment)	DRefr	110	appliances	13	\$0	\$0
DHWs	EHoWa	110	units	7	\$17	\$17
Dehumidifiers retirement value (CLC-specific)	BHVAC	0	appliances	4	\$74	\$74
Dehumidifiers energy star value (CLC-specific)	BHVAC	0	appliances	12	\$0	\$0
Insulation & Air Sealing - electric	BHVAC	31	sites	20	\$1,000	\$1,000
Insulation & Air Sealing - oil	BHVAC	70	sites	20	\$1,000	\$1,000
Insulation & Air Sealing - gas	BHVAC	100	sites	20	\$1,000	\$1,000
Insulation & Air Sealing - propane	BHVAC	10	sites	20	\$1,000	\$1,000

								Impact Factors	8					
Measure	End Use	Free- Ridership Rate	Spillover [Participant] Rate	Spillover [Non Participant] Rate	In-Service Rate	kWh Persistence	kWh Realization Rate	kWh Realization On-peak	kW-W Persistence	kW Winter Realization Rate	kW-S Persistence	kW Summer Realization Rate	NEB Persistence	NEB Realization
CFL	ALght	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Torchiere	ALght	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Refrigerator (savings over remaining life of existing equipment)	DRefr	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Refrigerator (savings over full life compared to new baseline equipment)	DRefr	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
DHWs	EHoWa	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Dehumidifiers retirement value (CLC-specific)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Dehumidifiers energy star value (CLC-specific)	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Insulation & Air Sealing - electric	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Insulation & Air Sealing - oil	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Insulation & Air Sealing - gas	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Insulation & Air Sealing - propane	BHVAC	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

		Energy Savings					Capacity Savings						
Measure	End Use	Gross Annual kWh Saved	Winter Peak Energy %	Winter Off- Peak Energy %	Summer Peak Energy %	Summer Off- Peak Energy %	Maximum Load Reduction (kW)	Summer Coincident (%)	Winter Coincident (%)	Trans. Coincident (%)	Dist. Coincident (%)		
CFL	ALght	34	27%	40%	13%	20%	0.009	35%	100%	35%	35%		
Torchiere	ALght	139	27%	40%	13%	20%	0.119	0%	0%	0%	0%		
Refrigerator (savings over remaining life of existing equipment)	DRefr	624	27%	40%	13%	20%	0.083	100%	92%	100%	100%		
Refrigerator (savings over full life compared to new baseline equipment)	DRefr	80	27%	40%	13%	20%	0.010	100%	92%	100%	100%		
DHWs	EHoWa	20	27%	40%	13%	20%	0.016	75%	100%	75%	75%		
Dehumidifiers retirement value (CLC-specific)	BHVAC	30	27%	40%	13%	20%	0.021	80%	0%	80%	80%		
Dehumidifiers energy star value (CLC-specific)	BHVAC	85	27%	40%	13%	20%	0.059	80%	0%	80%	80%		
Insulation & Air Sealing - electric	BHVAC	297	27%	40%	13%	20%	0.037	3%	100%	3%	3%		
Insulation & Air Sealing - oil	BHVAC	55	27%	40%	13%	20%	0.007	3%	100%	3%	3%		
Insulation & Air Sealing - gas	BHVAC	55	27%	40%	13%	20%	0.007	3%	100%	3%	3%		
Insulation & Air Sealing - propane	BHVAC	55	27%	40%	13%	20%	0.007	3%	100%	3%	3%		

							No	n-Electric Ben	efits					
Measure	End Use	Annual Fossil Fuel (Type)	Annual Fossi Fuel (MMBtu/Year)	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year)	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year)	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year)	Res Water Savings (Gallons per Year)	C&I Water Savings (Gallons per Year)	C&I Sewer Savings (Gallons per Year)	Annual Non Resource Benefit (bas year dollars	- One-time Non Resource e (base year ) dollars)
CFL	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	1 \$3
Torchiere	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	3 \$0
Refrigerator (savings over remaining life of existing equipment)	DRefr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$ 1	8 \$200
Refrigerator (savings over full life compared to new baseline equipment)	DRefr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	2 \$0
DHWs	EHoWa	0	0.00	0	0.00	0	0.00	0	0.00	8785	0	0	\$	D \$0
Dehumidifiers retirement value (CLC-specific)	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	1 \$0
Dehumidifiers energy star value (CLC-specific)	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$	2 \$0
Insulation & Air Sealing - electric	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$ 24	3 \$4,404
Insulation & Air Sealing - oil	BHVAC	1	25.20	0	0.00	0	0.00	0	0.00	0	0	0	\$ 20	4 \$6,710
Insulation & Air Sealing - gas	BHVAC	6	29.80	0	0.00	0	0.00	0	0.00	0	0	0	\$	\$0
Insulation & Air Sealing - propane	BHVAC	11	13.43	0	0.00	0	0.00	0	0.00	0	0	0	\$	- \$0

# Appendix B. Program Level Budgets & Savings Goals Figure 8. Commercial & Industrial - New Construction

Proposed Budget	\$ 164,050
Net Annual Savings Goal (kWh)	225,479
TRC Benefit Cost Ratio	3.58

Measure	End Use	Estimated Quantities	Units for Quantities	Measure Life	Total Resource Cost	Incentive Cost	Assumed Incentive Cost/Job	Assumed Incentive Cost/kWh Saved	Assumed Hours of Use
Lighting	ALght	7	Jobs	15	\$105,285	\$88,232	\$12,684	\$0.35	3,111
Heating, ventilation and AC	BHVAC	2	Jobs	15	\$35,516	\$26,308	\$16,798	\$1.40	1,500
Motors	CMoDr	3	Jobs	20	\$26,308	\$13,154	\$4,400	\$1.00	2,920

							In	npact Factors						
Measure	End Use	Free-Ridership Rate	Spillover [Participant] Rate	Spillover [Non- Participant] Rate	In-Service Rate	kWh Persistence	kWh Realization Rate	kWh Realization On-peak	kW-W Persistence	kW Winter Realization Rate	kW-S Persistence	kW Summer Realization Rate	NEB Persistence	NEB Realization
Lighting	ALght	31%	6%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heating, ventilation and AC	BHVAC	33%	9%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Motors	CMoDr	21%	18%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

			Energy Sa	ivings (for all jo	bs in total)	Capacity Savings (for all jobs in total)						
Measure	End Use	Gross Annual kWh Saved	Winter Peak Energy %	Winter Off- Peak Energy %	Summer Peak Energy %	Summer Off- Peak Energy %	Maximum Load Reduction (kW)	Summer Coincident (%)	Winter Coincident (%)	Trans. Coincident (%)	Dist. Coincident (%)	
Lighting	ALght	252,091	35%	32%	17%	16%	81.032	73%	37%	73%	73%	
Heating, ventilation and AC	BHVAC	18,792	0%	0%	70%	30%	12.528	85%	0%	85%	85%	
Motors	CMoDr	13,154	22%	21%	30%	27%	4.505	80%	90%	80%	80%	

			Non-Electric Benefits											
Measure	End Use	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year)	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Res Water Savings (Gallons per Year)	C&I Water Savings (Gallons per Year)	C&I Sewer Savings (Gallons per Year)	Annual Non- Resource Benefit (base year dollars)	One-time Non- Resource (base year dollars)
Lighting	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$22,729
Heating, ventilation and AC	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Motors	CMoDr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0

# Appendix B. Program Level Budgets & Savings Goals Figure 9. Commercial & Industrial - Government New Construction

Proposed Budget	\$ 65,384
Net Annual Savings Goal (kWh)	76,505
TRC Benefit Cost Ratio	3.28

Measure	End Use	Estimated Quantities	Units for Quantities	Measure Life	Total Resource Cost	Incentive Cost	Assumed Incentive Cost/Job	Assumed Incentive Cost/kWh Saved	Assumed Hours of Use
Lighting	ALght	3	Jobs	15	\$26,406	\$26,406	\$10,036	\$0.44	3,111
Heating, ventilation and AC	BHVAC	18	Jobs	15	\$14,403	\$14,403	\$800	\$1.75	1,500
Motors	CMoDr	1	Jobs	20	\$7,202	\$7,202	\$13,000	\$1.25	2,920

								Impact Factors	6					
Measure	End Use	Free- Ridership Rate	Spillover [Participant] Rate	Spillover [Non- Participant] Rate	In-Service Rate	kWh Persistence	kWh Realization Rate	kWh Realization On-peak	kW-W Persistence	kW Winter Realization Rate	kW-S Persistence	kW Summer Realization Rate	NEB Persistence	NEB Realization
Lighting	ALght	0%	0%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heating, ventilation and AC	BHVAC	0%	0%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Motors	CMoDr	0%	0%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

			Energy Sa	vings (for all jo	obs in total)			Capacity Sa	avings (for all j	obs in total)	
Measure	End Use	Gross Annual kWh Saved	Winter Peak Energy %	Winter Off- Peak Energy %	Summer Peak Energy %	Summer Off- Peak Energy %	Maximum Load Reduction (kW)	Summer Coincident (%)	Winter Coincident (%)	Trans. Coincident (%)	Dist. Coincident (%)
Lighting	ALght	60,357	35%	32%	17%	16%	19.401	73%	37%	73%	73%
Heating, ventilation and AC	BHVAC	8,231	0%	0%	70%	30%	5.487	85%	0%	85%	85%
Motors	CMoDr	5,761	22%	21%	30%	27%	1.973	80%	90%	80%	80%

							Nor	n-Electric Bene	efits					
Measure	End Use	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Res Water Savings (Gallons per Year)	C&I Water Savings (Gallons per Year)	C&I Sewer Savings (Gallons per Year)	Annual Non- Resource Benefit (base year dollars)	One-time Non- Resource (base year dollars)						
Lighting	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$7,142
Heating, ventilation and AC	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Motors	CMoDr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0

# Appendix B. Program Level Budgets & Savings Goals Figure 10. Commercial & Industrial - Products & Services

Proposed Budget	\$ 129,749
Net Annual Savings Goal (kWh)	96,967
TRC Benefit Cost Ratio	2.07

Measure	End Use	Estimated Quantities	Units for Quantities	Measure Life	Total Resource Cost	Incentive Cost	Assumed Incentive Cost/Job	Assumed Incentive Cost/kWh Saved	Assumed Hours of Use
Cool Choice	ALght	20	Jobs	13	\$53,737	\$34,868	\$1,731	\$0.50	1,500
Motor Up	BHVAC	159	Jobs	15	\$24,497	\$12,249	\$77	\$0.50	2,920

								Impact Factors	6					
Measure	End Use	Free- Ridership Rate	Spillover [Participant] Rate	Spillover [Non- Participant] Rate	In-Service Rate	kWh Persistence	kWh Realization Rate	kWh Realization On-peak	kW-W Persistence	kW Winter Realization Rate	kW-S Persistence	kW Summer Realization Rate	NEB Persistence	NEB Realization
Cool Choice	ALght	0%	0%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Motor Up	BHVAC	0%	0%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

			Energy Sa	ivings (for all jo	bs in total)			Capacity Sa	avings (for all j	obs in total)	
Measure	End Use	Gross Annual kWh Saved	Winter Peak Energy %	Winter Off- Peak Energy %	Summer Peak Energy %	Summer Off- Peak Energy %	Maximum Load Reduction (kW)	Summer Coincident (%)	Winter Coincident (%)	Trans. Coincident (%)	Dist. Coincident (%)
Cool Choice	ALght	69,737	43%	18%	28%	11%	46.491	85%	59%	85%	85%
Motor Up	BHVAC	24,497	43%	18%	28%	11%	8.389	85%	59%	85%	85%

							No	n-Electric Bene	fits					
Measure	End Use	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Res Water Savings (Gallons per Year)	C&I Water Savings (Gallons per Year)	C&I Sewer Savings (Gallons per Year)	Annual Non- Resource Benefit (base year dollars)	One-time Non- Resource (base year dollars)						
Cool Choice	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Motor Up	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0

# Appendix B. Program Level Budgets & Savings Goals Figure 11. Commercial & Industrial - Large Retrofit

Proposed Budget	\$ 219,990
Net Annual Savings Goal (kWh)	334,083
TRC Benefit Cost Ratio	2.29

Measure	End Use	Estimated Quantities	Units for Quantities	Measure Life	Total Resource Cost	Incentive Cost	Assumed Incentive Cost/Job	Assumed Incentive Cost/kWh Saved	Assumed Hours of Use
Lighting	ALght	5	Jobs	13	\$182,890	\$87,270	\$17,187	\$0.35	3,111
Heating, ventilation and AC	BHVAC	7	Jobs	12	\$40,963	\$17,444	\$2,625	\$0.58	1,500
Motors	CMoDr	5	Jobs	15	\$40,963	\$17,444	\$3,750	\$0.34	2,920

								Impact Factors						
Measure	End Use	Free- Ridership Rate	Spillover [Participant] Rate	Spillover [Non- Participant] Rate	In-Service Rate	kWh Persistence	kWh Realization Rate	kWh Realization On-peak	kW-W Persistence	kW Winter Realization Rate	kW-S Persistence	kW Summer Realization Rate	NEB Persistence	NEB Realization
Lighting	ALght	6%	3%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heating, ventilation and AC	BHVAC	0%	0%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Motors	CMoDr	0%	0%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

			Energy Sa	ivings (for all jo	obs in total)			Capacity S	avings (for all j	obs in total)	
Measure	End Use	Gross Annual kWh Saved	Winter Peak Energy %	Winter Off- Peak Energy %	Summer Peak Energy %	Summer Off- Peak Energy %	Maximum Load Reduction (kW)	Summer Coincident (%)	Winter Coincident (%)	Trans. Coincident (%)	Dist. Coincident (%)
Lighting	ALght	249,343	35%	32%	17%	16%	80.149	73%	37%	73%	73%
Heating, ventilation and AC	BHVAC	30,076	0%	0%	70%	30%	20.051	85%	0%	85%	85%
Motors	CMoDr	51,307	22%	21%	30%	27%	17.571	80%	90%	80%	80%

							Nor	n-Electric Bene	efits					
Measure	End Use	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Res Water Savings (Gallons per Year)	C&I Water Savings (Gallons per Year)	C&I Sewer Savings (Gallons per Year)	Annual Non- Resource Benefit (base year dollars)	One-time Non- Resource (base year dollars)						
Lighting	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$28,789
Heating, ventilation and AC	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Motors	CMoDr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0

# Appendix B. Program Level Budgets & Savings Goals Figure 12. Commercial & Industrial - Government Large Retrofit

Proposed Budget	\$ 520,786
Net Annual Savings Goal (kWh)	729,777
TRC Benefit Cost Ratio	3.16

Measure	End Use	Estimated Quantities	Units for Quantities	Measure Life	Total Resource Cost	Incentive Cost	Assumed Incentive Cost/Job	Assumed Incentive Cost/kWh Saved	Assumed Hours of Use
Lighting	ALght	12	Jobs	13	\$309,520	\$309,520	\$26,892	\$0.44	3,111
Heating, ventilation and AC	BHVAC	1	Jobs	12	\$36,414	\$36,414	\$55,768	\$1.75	1,500
Refrigeration	DRefr	3	Jobs	13	\$18,207	\$18,207	\$6,089	\$0.44	5,843

								Impact Factors	6					
Measure	End Use	Free- Ridership Rate	Spillover [Participant] Rate	Spillover [Non- Participant] Rate	In-Service Rate	kWh Persistence	kWh Realization Rate	kWh Realization On-peak	kW-W Persistence	kW Winter Realization Rate	kW-S Persistence	kW Summer Realization Rate	NEB Persistence	NEB Realization
Lighting	ALght	1%	3%	3%	89%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heating, ventilation and AC	BHVAC	0%	0%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Refrigeration	DRefr	0%	0%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

			Energy Sa	wings (for all jo	obs in total)			Capacity S	avings (for all j	obs in total)	
Measure	End Use	Gross Annual kWh Saved	Winter Peak Energy %	Winter Off- Peak Energy %	Summer Peak Energy %	Summer Off- Peak Energy %	Maximum Load Reduction (kW)	Summer Coincident (%)	Winter Coincident (%)	Trans. Coincident (%)	Dist. Coincident (%)
Lighting	ALght	707,475	35%	32%	17%	16%	227.411	73%	37%	73%	73%
Heating, ventilation and AC	BHVAC	20,808	0%	0%	70%	30%	13.872	85%	0%	85%	85%
Refrigeration	DRefr	41,616	22%	21%	30%	27%	7.122	80%	90%	80%	80%

							No	n-Electric Bene	efits					
Measure	End Use	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Res Water Savings (Gallons per Year)	C&I Water Savings (Gallons per Year)	C&I Sewer Savings (Gallons per Year)	Annual Non- Resource Benefit (base year dollars)	One-time Non- Resource (base year dollars)						
Lighting	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$76,537
Heating, ventilation and AC	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Refrigeration	DRefr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0

# Appendix B. Program Level Budgets & Savings Goals Figure 13. Commercial & Industrial - Small Retrofit

Proposed Budget	\$1,925,554
Net Annual Savings Goal (kWh)	3,401,727
TRC Benefit Cost Ratio	3.23

Measure	End Use	Estimated Quantities	Units for Quantities	Measure Life	Total Resource Cost	Incentive Cost	Assumed Incentive Cost/Job	Assumed Incentive Cost/kWh Saved	Assumed Hours of Use
Lighting	ALght	418	Jobs	13	\$1,527,404	\$1,204,422	\$2,883	\$0.38	3,111
Heating, ventilation and AC	BHVAC	99	Jobs	10	\$140,144	\$70,424	\$710	\$0.43	1,500
Refrigeration	DRefr	52	Jobs	10	\$251,514	\$201,211	\$3,836	\$0.35	5,843

								Impact Factors	S					
Measure	End Use	Free- Ridership Rate	Spillover [Participant] Rate	Spillover [Non- Participant] Rate	In-Service Rate	kWh Persistence	kWh Realization Rate	kWh Realization On-peak	kW-W Persistence	kW Winter Realization Rate	kW-S Persistence	kW Summer Realization Rate	NEB Persistence	NEB Realization
Lighting	ALght	6%	3%	3%	86%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heating, ventilation and AC	BHVAC	43%	0%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Refrigeration	DRefr	4%	0%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

			Energy Sa	vings (for all jo	obs in total)			Capacity Sa	avings (for all j	obs in total)	
Measure	End Use	Gross Annual kWh Saved	Winter Peak Energy %	Winter Off- Peak Energy %	Summer Peak Energy %	Summer Off- Peak Energy %	Maximum Load Reduction (kW)	Summer Coincident (%)	Winter Coincident (%)	Trans. Coincident (%)	Dist. Coincident (%)
Lighting	ALght	3,169,531	35%	32%	17%	16%	1,018.814	73%	37%	73%	73%
Heating, ventilation and AC	BHVAC	163,777	0%	0%	70%	30%	109.184	85%	0%	85%	85%
Refrigeration	DRefr	574,890	22%	21%	30%	27%	98.389	80%	90%	80%	80%

							Nor	n-Electric Ben	efits					
Measure	End Use	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Res Water Savings (Gallons per Year)	C&I Water Savings (Gallons per Year)	C&I Sewer Savings (Gallons per Year)	Annual Non- Resource Benefit (base year dollars)	One-time Non- Resource (base year dollars)						
Lighting	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$314,720
Heating, ventilation and AC	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Refrigeration	DRefr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0

# Appendix B. Program Level Budgets & Savings Goals Figure 14. Commercial & Industrial - Government Small Retrofit

Proposed Budget	\$ 884,299
Net Annual Savings Goal (kWh)	1,313,107
TRC Benefit Cost Ratio	3.51

Measure	End Use	Estimated Quantities	Units for Quantities	Measure Life	Total Resource Cost	Incentive Cost	Assumed Incentive Cost/Job	Assumed Incentive Cost/kWh Saved	Assumed Hours of Use
Lighting	ALght	86	Jobs	13	\$445,770	\$445,770	\$5,187	\$0.48	3,111
Heating, ventilation and AC	BHVAC	28	Jobs	10	\$26,613	\$26,613	\$938	\$0.75	1,500
Motors	CMoDr	6	Jobs	15	\$186,292	\$186,292	\$33,395	\$0.50	2,920
Refrigeration	DRefr	13	Jobs	10	\$6,653	\$6,653	\$526	\$0.35	5,843

								Impact Factors	3					
Measure	End Use	Free- Ridership Rate	Spillover [Participant] Rate	Spillover [Non- Participant] Rate	In-Service Rate	kWh Persistence	kWh Realization Rate	kWh Realization On-peak	kW-W Persistence	kW Winter Realization Rate	kW-S Persistence	kW Summer Realization Rate	NEB Persistence	NEB Realization
Lighting	ALght	1%	3%	3%	89%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heating, ventilation and AC	BHVAC	0%	0%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Motors	CMoDr	0%	0%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Refrigeration	DRefr	0%	0%	3%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

			Energy Sa	vings (for all jo	obs in total)		Capacity Savings (for all jobs in total)					
Measure	End Use	Gross Annual kWh Saved	Winter Peak Energy %	Winter Off- Peak Energy %	Summer Peak Energy %	Summer Off- Peak Energy %	Maximum Load Reduction (kW)	Summer Coincident (%)	Winter Coincident (%)	Trans. Coincident (%)	Dist. Coincident (%)	
Lighting	ALght	928,688	35%	32%	17%	16%	298.517	73%	37%	73%	73%	
Heating, ventilation and AC	BHVAC	35,484	0%	0%	70%	30%	23.656	85%	0%	85%	85%	
Motors	CMoDr	372,584	22%	21%	30%	27%	127.597	80%	90%	80%	80%	
Refrigeration	DRefr	19,009	22%	21%	30%	27%	3.253	80%	90%	80%	80%	

							Nor	n-Electric Bene	efits					
Measure	End Use	Annual Fossil Fuel (Type)	Annual Fossil Fuel (MMBtu/Year )	Res Water Savings (Gallons per Year)	C&I Water Savings (Gallons per Year)	C&I Sewer Savings (Gallons per Year)	Annual Non- Resource Benefit (base year dollars)	One-time Non- Resource (base year dollars)						
Lighting	ALght	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$100,469
Heating, ventilation and AC	BHVAC	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Motors	CMoDr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0
Refrigeration	DRefr	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	\$-	\$0

# Appendix C. Expansion of Existing Efforts vs. New Efforts Figure 1. Overview

	Expanding Ex	cisting Efforts	New Ef	forts
	Programs Affected	% Increase in Lifetime MWh Saved	Programs Affected	% Increase in Lifetime MWh Saved
Residential Programs A02a Energy Star Homes A02b Energy Star HVAC		516%	N	16% All New
A03a Residential Conservation Service		104%		2%
A04b Energy Star Appliances	$\mathbf{\nabla}$	-59%	$\overline{\mathbf{A}}$	25%
Total Non Low-Income		<u>89%</u>		<u>4%</u>
B03a LI Single Family B03b LI Multi-Family	Ø	13% 253%		
Total Low-Income		<u>27%</u>		
Total Residential		<u>84%</u>		<u>3%</u>
Commercial & Industrial Programs		134%		
C02b C&I Govt New Construction	$\checkmark$	43%		
C03a C&I Large Retrofit	$\square$	73%		100/
C03b C&I Small Retrofit		43%	$\checkmark$	49%
C03d C&I Govt Small		43%		
C04c C&I Products & Services	$\overline{\mathbf{v}}$	186%	$\checkmark$	26%
Total Commercial & Industrial		<u>49%</u>		<u>22%</u>
Total		70%		10%

# Appendix C. Expansion of Existing Efforts vs. New Efforts

Figure 2. Projected Increases in Lifetime MWh Savings for Residential Non-Low Income Programs



# Appendix C. Expansion of Existing Efforts vs. New Efforts Figure 3. Projected Increases in Lifetime MWh Savings for Residential Low Income Programs



# Appendix C. Expansion of Existing Efforts vs. New Efforts Figure 4. Projected Increases in Lifetime MWh Savings for Commercial & Industrial Programs



# Supporting Data for Appendix C Figures

Residential

		Existing Efforts	Expanding Existing Efforts	New Efforts	Total	Expanding Existing Efforts	% Increase from Expanding Existing Efforts	% Increase from New Efforts
A02a Energy Star Homes	2008 Plan	837			837			
	2009 Plan	837	4,321	817	5,975	5,158	516%	16%
A02b Energy Star HVAC	2008 Plan	-			-			
	2009 Plan	-	-	1,895	1,895	-		
A03a Residential Conservation Service	2008 Plan	16,380			16,380			
A03a Residential Conservation Service	2009 Plan	16,380	17,068	834	34,282	33,448	104%	2%
A042 Energy Star Lighting	2008 Plan	39,227			39,227			
A04a Energy Star Lighting	2009 Plan	39,227	36,687	105	76,019	75,914	94%	0%
A04b Energy Star Appliances	2008 Plan	5,188			5,188			
	2009 Plan	2,127	-	527	2,654	2,127	-59%	25%
Total Non-Low Income	2009 Plan	61,632	58,076	4,178	120,825	116,647	89%	4%

		Existing Efforts	Expanding Existing Efforts	New Efforts	Total	Expanding Existing Efforts	% Increase from Expanding Existing Efforts	% Increase from New Efforts
B03a LI Single Family	2008 Plan	5,589			5,589			
	2009 Plan	5,589	750	-	6,339	6,339	13%	0%
RO2h I I Multi Family	2008 Plan	344			344			
BU3D LI Multi-Family	2009 Plan	344	871	-	1,215	1,215	253%	0%
Total Low Income	2009 Plan	5,933	1,621	-	7,554	7,554	27%	0%
Total Residential	2009 Plan	67,565	59,697	4,178	128,379	124,201	84%	3%

C&I

		Existing Efforts	Expanding Existing Efforts	New Efforts	Total	Expanding Existing Efforts	% Increase from Expanding Existing Efforts	% Increase from New Efforts
C022 C81 Now Construction	2008 Plan	1,473			1,473			
COZA CAT NEW COnstruction	2009 Plan	1,473	1,975	-	3,448	3,448	134%	0%
C02b C&I Govt New Construction	2008 Plan	824			824			
	2009 Plan	824	353	-	1,177	1,177	43%	0%
C03a C&I Large Retrofit	2008 Plan	2,560			2,560			
	2009 Plan	2,560	1,858	-	4,418	4,418	73%	0%
CO2a CRI Cout Larga	2008 Plan	6,626			6,626			
COSC CAI GOVE Large	2009 Plan	6,626	2,840	-	9,466	9,466	43%	0%
C03b C&I Small Potrofit	2008 Plan	19,841			19,841			
	2009 Plan	19,841	8,503	13,883	42,227	28,344	43%	49%
C03d C&I Covt Small	2008 Plan	12,368			12,368			
COSC CALGOVE SITIAL	2009 Plan	12,368	5,301	-	17,669	17,669	43%	0%
C04c C&I Products & Services	2008 Plan	365			365			
Core carrieducis a Dervices	2009 Plan	365	678	268	1,311	1,043	186%	26%
Total C&I	2009 Plan	44,057	21,508	14,151	79,716	65,565	49%	22%
Total	2009 Plan	111,622	81,205	18,329	208,095	189,766	70%	10%
		1						
% of Increase				9%		91%		

## COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES

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The Cape Light Compact's Proposed Second Amendment to Its Approved Energy Efficiency Plan: 2007 – 2012

DPU 07-47

# **CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing Proposed Second Amendment to its Approved Energy Efficiency Plan: 2007 – 2012 upon Secretary Mary Cottrell and Hearing Officer Benjamin Spruill via hand delivery and electronic mail delivery and the remaining Service List by first class mail and electronic mail delivery in this matter.

Dated this 26<sup>th</sup> day of November, 2008.

Suzy Hong, Esq. BCK LAW, P.C. One Gateway Center, Suite 851 Newton, MA 02458 617 244-9500 (Phone) 617 244-9550 (Fax)

T:\Clients\BCY\DSM\EEP Implementation\2009 EEP Filing\Certificate of Service EEP (2008-11-26).bcy.doc

## San Joachin Valley Joint Powers Authority Community Choice Television :30 English

Musical theme begins.

Voice 1

"Community Choice: an energy program for our region,"

Voice 2

"A partnership of <u>our</u> local cities and counties working for reliable energy, lower costs and local control."

Voice 3:

"It's our energy,

Voices #1, 2 or 3:

our power,

our community,

our future."

Voice # 4:

"Community choice a Partnership for Reliable Energy. it's your choice, your voice, our future.

Musical flourish at end.

## NORTHEAST OHIO PUBLIC ENERGY COUNCIL

## **RESOLUTION GA-3 RECOMMENDED CHANGES TO THE BYLAWS**

WHEREAS, certain municipal corporations, counties and townships of the State of Ohio (each, a "Member") entered into an Agreement Establishing the Northeast Ohio Public Energy Council (the "Agreement") pursuant to Revised Code Chapter 167, for the purpose of carrying out the Aggregation Program pursuant to Revised Code Section 4928.20 and any Additional Programs which the Members of the Council may approve, from time to time, and which are authorized under the laws of the State; and

WHEREAS, Revised Code Section 167.04 requires and the Agreement provides that the Council shall adopt Bylaws designating the officers of the Council and the method of selection thereof, creating a governing board to act for the Council, appointing a fiscal officer and providing for the conduct of the Council's business; and

WHEREAS, each Member has by duly adopted legislation authorized its representative to approve these Bylaws, and the representatives of the Members have met for the purpose of adopting these Bylaws in accordance with Revised Code Section 167.40 and Section 4 of the Agreement;

NOW, THEREFORE, the following provisions shall constitute the Bylaws of the Council:

## Section 1. <u>Definitions</u>.

Any capitalized word or phrase used in these Bylaws and not otherwise defined herein, shall have the meaning given in Section 1 of the Agreement as the Agreement may, from time to time, be amended, modified, or supplemented in accordance with Section 8 thereof.

### Section 2. <u>Assembly</u>.

The Assembly shall be the legislative body of the Council. The Assembly shall be composed of the representatives of the Members, who have been appointed pursuant to Section 3 of the Agreement. All representatives to the Assembly (exclusive of ex-officio members) shall serve without compensation.

An Assembly representative may designate another Assembly representative as a proxy at any meeting by delivering to the Chairman of the Council a written designation of that proxy.

(A) <u>Ex-officio Members of the Assembly</u>. The Fiscal Agent of the Council shall be an ex-officio member of the Assembly and may attend all meetings of the Assembly, but shall not count for purposes of determining a quorum and shall not have a vote. In the event that the Council employs a person or persons to perform the duties of the Fiscal Agent and/or Administrator in accordance with Section 4 and 5 of these Bylaws, the person or persons so employed as Fiscal Agent and/or Administrator of the Council each shall be ex-officio members of the Assembly and may attend all meetings of the Assembly, but shall not be counted for purposes of determining a quorum and shall not have a vote.

- (B) Officers. The officers of the Board of Directors shall be the officers of the Council and its Assembly and shall consist of a Chairman and Vice-Chairman who each shall be selected pursuant to Section 3 hereof. The Chairman (and in the Chairman's absence, the Vice-Chairman) shall preside at Assembly meetings. If for any reason the offices of the Chairman and Vice-Chairman are vacant, the person serving as Executive Secretary[Director], if any, shall preside as temporary Chairman until a Chairman is elected by the Board of Directors. If the Council does not have an Executive Secretary[Director] and the offices of the Chairman and Vice-Chairman are vacant, the person serving as Fiscal Agent or his designee shall preside as temporary Chairman until a Chairman until a Chairman until a Chairman of Secretary[Director] and the offices of the Chairman and Vice-Chairman are vacant, the person serving as Fiscal Agent or his designee shall preside as temporary Chairman until a Chair
- (C) Resolutions. A majority of all representatives to the Assembly (including proxies correctly presented to the Chairman) shall constitute a quorum to transact business except as otherwise provided in the Agreement or these Bylaws. Each representative (including the Chairman and Vice-Chairman) shall have one vote; provided, however, that when a matter is to be voted upon which is of concern to only one or more but not all Programs of the Council, only representatives of participating Members of those Programs shall be entitled to vote on that matter and only those representatives shall be counted for purposes of determining whether a quorum is present. All legislative action of the Assembly shall be by resolutions entered on its records. Except as otherwise provided in the Agreement, the affirmative vote of at least a majority of all of the representatives to the Assembly eligible to vote on a matter (not counting vacancies) shall be required for the enactment of every resolution. Unless otherwise specifically stated in the resolution, all resolutions shall be effective immediately upon enactment, subject to any authorizations or certifications required by the Revised Code to be made by the Fiscal Agent or the Members.
- (D) <u>Meetings</u>. The Assembly shall meet on the second Tuesday of each November and at such other times as may be required by the Chairman or as may be requested, in writing to the Executive <u>Secretary[Director]</u>, by any two (2) or more representatives of the Assembly[Directors]. Written notice of each meeting shall be served by the Executive <u>Secretary[Director]</u> upon each Assembly representative not less than twenty-four (24) hours preceding the time for the meeting, and shall state the date, time, and place of the meeting and subject or subjects to be considered at the meeting. The requirements of and procedures for notice may be waived in writing by each representative and any representative shall be deemed conclusively to have waived such notice with respect to a meeting by his or her attendance at that meeting. At the request of the Chairman and with the approval of a majority of the members of the Board of Directors, the

annual meeting of the Assembly may be rescheduled to such other dates as may be so approved by the Board of Directors; provided, however, that actions required by this Agreement to be taken by the Assembly at its annual meeting are taken by the Assembly within thirty (30) days of the second Tuesday in November.

Pursuant to Revised Code Section 121.22(F), the Assembly shall by rule, establish a reasonable method whereby any person may determine the time, place, and purpose of its meetings. All meetings of the Assembly shall be open to the public, subject to the exceptions in Revised Code Section 121.22(G). The Assembly may, but need not, adopt other rules.

- (E) <u>Powers and Duties of Assembly</u>.
  - (1) At its annual meeting, the Assembly shall review the annual report of the Council, including but not limited to, the financial status of the Council's operation, operation of the Aggregation Program, and any Additional Program being considered.
  - (2) At its annual meeting, the Assembly shall consider, upon submission by the Board of Directors, and thereafter modify, if necessary, and approve the annual appropriations of the Council for the next Fiscal Year based upon the estimate of Aggregation Costs and any Additional Program Costs determined pursuant to Section 8 hereof. The Board of Directors shall have the authority to revise the appropriations between Assembly meetings.
  - (3) At its annual meeting, the Assembly shall select the members of the Board of Directors for the next Fiscal Year in accordance with Section 3 hereof.
  - (4) The following matters shall be submitted to the Assembly and are subject to final approval by the Assembly: the annual appropriations of the Council for each Fiscal Year; selection of the Board of Directors; and such other matters of the Board of Directors or the Assembly may, from time to time, determine to be matters requiring approval by the Assembly.

## Section 3. <u>Board of Directors</u>.

The Board of Directors shall be the policy making body of the Council.

(A) <u>Composition</u>. The Board of Directors shall be composed of one Director representing each county with Members in the Council, who shall be an Assembly representative and shall be elected by the Assembly representatives of each respective county, at the annual meeting of the Assembly, provided that the affirmative vote of at least a majority of the representatives to the Assembly of each representative county shall be required to elect any Director. The Fiscal Agent of the Council shall be an ex-officio member of the Board of Directors and may attend all meetings of the Board of Directors but shall not have a vote. In the event that the Council employs a person or persons to perform the duties of Fiscal Agent and/or Administrator, in accordance with Section 4 and 5 of these Bylaws, the person or persons so employed as Fiscal Agent and/or Administrator shall each be an ex-officio member of the Board of Directors but shall not have a vote.

(B) <u>Terms of Office</u>. Assembly representatives elected to serve on the Board of Directors at the first organizational meeting shall serve the following terms of office: Half of the members of the Board shall each serve a two-year term and the other half shall each serve a one-year term. Thereafter, any Assembly representative elected to serve on the Board of Directors shall serve a two (2) year term of office. If the number of members of the Board is increased as a result of an increase in the number of counties represented by the membership in the Council, then the terms of those additional Board members shall be set by the Board so that half, or as close as possible to half, of the members of the Board shall be elected every year. There shall be no limit to the number of terms to which a person may be elected or appointed. All members of the Board (exclusive of ex-officio members) shall serve without compensation.

In the event that a vacancy occurs on the Board of Directors, the remaining members of the Board of Directors shall meet and appoint an Assembly representative to fill the vacancy until the next meeting of the Assembly at which elections of Directors are held.

- (C) <u>Meetings</u>. The Board of Directors shall hold regular meetings not less than once per calendar quarter at such times as may be determined by the Board or the Chairman. Special meetings shall be held at such other times as may be requested by the Chairman. Written notice of each meeting shall be served by the Executive <u>Secretary[Director]</u> upon each Director not less than twenty-four (24) hours preceding the time for the meeting, and shall state the date, time, and place of the meeting and subject to be considered at the meeting. The requirements of and procedures for notice may be waived in writing by each Director and any Director shall be deemed conclusively to have waived such notice with respect to a meeting by his or her attendance at that meeting.
- (D) [Attendance. Directors are expected to attend Board meetings. Any Director who is absent from three Board meetings without excuse during a twelve month period is automatically removed from the Board. The remaining Directors shall meet and appoint a person to fill the vacated seat until the next meeting of the General Assembly at which elections of Directors are held.]

[

(E) (D)-Officers. At its first meeting in each Fiscal Year, the Board of Directors shall convene and organize. The Chairman of the Board shall be elected to serve a one-year term by the Board of Directors from its members by majority vote of all its

members. The Chairman whose term has expired shall preside as temporary Chairman until the Chairman is elected. In the absence of the prior Chairman, the prior Vice-Chairman shall be elected to serve a one year term by the Board of Directors by a majority vote of its members.

- (1) <u>Chairman</u>. The Chairman shall preside at all meetings of the Board of Directors and the Assembly. The Chairman's duties shall also include, but not be limited to: preparing agendas for each meeting of the Board of Directors and arranging for distribution of such agendas so that each Board member receives an agenda at least seven (7) days in advance of each regularly scheduled Board meeting and as soon as practical before any specially scheduled Board meeting; and presenting an annual report to the Assembly at its annual meeting, or distribution of such report to the Members, concerning the activities and operations of the Council. In the event of a tie on matters subject to a vote of the Board, the Chairman shall cast the tie-breaking vote.
- (2) <u>Vice-Chairman</u>. In the absence of the Chairman, the Vice-Chairman shall preside at meetings of the Board of Directors and the Assembly. The Vice-Chairman shall succeed to the office of the Chairman, should that office be vacated before the end of a term, and shall assist the Chairman in the discharge of his duties.
- (3) Executive Secretary[Director]. The Executive Secretary[Director] shall provide written notice to all members of the Board of Directors of all meetings of the Board in accordance with paragraph (C) of this Section. Minutes of all meetings of the Board shall be kept by the Executive Secretary[Director] and distributed to each member of the Board within thirty (30) days following each Board meeting. The Executive Secretary[Director] shall provide Assembly members with written notice of all Assembly meetings in accordance with Section 2 hereof. The Executive Secretary[Director] shall perform such other duties as the Chairman may request. If no Executive Secretary[Director] is hired, the above assignments will be performed by the Fiscal Agent. If the Board of Directors decides to hire a chief executive officer for the Council, then this person will be titled the Executive Secretary[Director]. The Board of Directors shall provide a job description for this position.
- (4) <u>Fiscal Agent</u>. The Board of Directors shall provide for the employment of a Fiscal Agent either by:
  - (a) contracting with a Member, or
  - (b) hiring a person to perform the duties of the Fiscal Agent, who shall be the Treasurer. Separate Fiscal Agents may be hired to handle specific Programs or assigned to the Treasurer if such employee is

hired. The Fiscal Agent shall receive and disburse all funds of the Council, prepare all necessary fiscal reports for the Board of Directors and the Assembly, and undertake all other financial transactions necessary to the work of the Council.

The Fiscal Agent of the Council shall obtain and keep in force a fidelity bond, in an amount determined by the Board of Directors and with a surety company approved by the Board of Directors, or, in lieu of a separate fidelity bond, the Board of Directors may direct the Fiscal Agent to continue and keep in force any existing fidelity bond the Fiscal Agent may have which the Board of Directors determines to be adequate. In either case, the Council shall be named as an insured on such bond and the amount thereof shall not be reduced without prior written consent of the Board of Directors.

The Fiscal Agent and the Executive <u>Secretary[Director]</u> may be held by the same person or by two different persons.

- (E) <u>Powers and Duties of the Board of Directors</u>. The Board of Directors shall have the authority to:
  - (1) Consider and approve any purchases of equipment, facilities, or services for the Council; provided that the cost thereof is within the Aggregation Costs approved by the Assembly pursuant to Section 8 hereof.
    - (a) Make recommendations to the Assembly concerning any matter relating to the Council and its Programs, including but not limited to:
    - (b) amendments to or modifications of the Agreement and Bylaws,
    - (c) appropriations of the Council,
    - (d) each Member's share of Aggregation Costs or any Additional Program Costs, and
    - (e) disqualification of Members.
  - (2) Direct the Fiscal Agent concerning any disbursements from the Aggregation Fund.
  - (3) By affirmative vote of a majority of Board members and upon certification to the Board by the Fiscal Agent that the proposal is within the limits of the Council's resources, amend the budget and appropriations of the Council.

- (4) Approve the inclusion of additional Members into the Council.
- (5) Enter into any and all necessary and incidental contracts to facilitate the aggregation of the retail electric loads within the jurisdiction(s) of the Members.
- (6) Enter into any and all necessary and incidental contracts to carry out all Programs of the Council.

## Section 4. Advisory Committees.

One or more Advisory Committees may be appointed by the Board of Directors to assist the Board of Directors in the management of any Program of the Council. The members of an Advisory Committee shall be appointed by and shall serve at the pleasure of the Board of Directors. Each Advisory Committee shall perform the duties directed by the Board of Directors.

Each Advisory Committee shall elect from its membership a Chairman and Vice-Chairman, who shall each serve for a term of one year or such shorter period of time as the Advisory Committee may be in existence. The Chairman shall preside at all Committee meetings and prepare the agenda for each meeting following consultation with the Executive Secretary[Director] or Board of Directors. In the absence of the Chairman, the Vice-Chairman shall preside at Committee meetings. The Vice-Chairman shall succeed to the office of the Chairman, should it be vacated before the end of a term, and shall assist the Chairman in the discharge of the Chairman's duties.

Each Advisory Committee shall make recommendations to the Board of Directors concerning any matter referred to it by the Board of Directors.

## Section 5. <u>Employees and Consultants</u>.

The Board of Directors may employ the Fiscal Agent and the Executive <u>Secretary[Director]</u> for the Council. In addition, the Board of Directors may employ other persons and may contract for the services of independent contractors, consultants, legal counsel, or experts as the Board of Directors deems necessary or appropriate for the proper operation and administration of the Council and its Programs. Any staff employed by the Council shall be determined by the Board of Directors to have the educational background and work experience necessary to discharge the duties assigned to that person by the Board of Directors. The Board of Directors shall establish the salaries, benefits, and work and disciplinary rules for the Council's staff and shall direct the hiring and discharge of that staff. The Board of Directors of the Council's staff. The salaries and independent contractors, consultants, legal counsel, or experts shall be paid either as Aggregation Costs or Additional Program Costs from their respective accounts as determined by the Board of Directors.

## Section 6. Equipment and Facilities.

The Council may purchase, lease, or otherwise provide supplies, materials, equipment, and facilities as it deems necessary and appropriate to carry out the Programs of the Council. The Council shall comply, to the extent applicable, with the provisions of the Ohio Revised Code with respect to the procedures for bidding and letting of contracts for the acquisition, repair, or improvement of its facilities, equipment, and supplies. The Fiscal Agent of the Council shall, at the direction of and on behalf of the Board of Directors, enter into all contracts or leases for supplies, materials, equipment, or facilities of the Council.

## Section 7. <u>Aggregation Fund</u>.

The Aggregation Fund shall be established and maintained by the Fiscal Agent of the Council separate and apart form all other funds of the Council which may be under the custody of the Fiscal Agent. Separate funds will be established for Additional Programs of the Council. All funds of the Council (Aggregation and Additional Program Funds) shall be subject to the laws of the State concerning the investment and management of public funds, particularly Revised Code Chapter 135, and shall be the responsibility of the Fiscal Agent.

The Fiscal Agent of the Council shall deposit in the Aggregation Fund the amounts received from the Members for Aggregation Costs of the Council and any interest earned by the Aggregation Fund. Disbursements may be made from the Aggregation Fund by the Fiscal Agent at the direction of the Board of Directors or the Assembly for any proper purpose of the Council, including but not limited to payment of Aggregation Costs, costs incurred in connection with the establishment of the Council, salaries of any persons employed to carry out the functions related to the Aggregation Program, fees and expenses of the Fiscal Agent, consultants and attorneys, and payment of other operating expenses.

The Fiscal Agent of the Council shall maintain records which identify all receipts of the Aggregation Fund by source. The Fiscal Agent shall maintain records which account for all disbursements from the Aggregation Fund. The Fiscal Agent shall make monthly reports to the Board of Directors on or before the twentieth  $(20^{th})$  day of each month concerning all receipts and disbursements from the Aggregation Fund.

## Section 8. <u>Estimate of Aggregation Costs; Payments by Members.</u>

On or before the annual meeting of the Assembly he Board of Directors shall: (a) submit to the Assembly a written estimate of the Aggregation Costs and any Additional Program Costs for the next Fiscal Year of the Council, and (b) if a fee is to be collected, provide the Assembly and each Member with an estimate of each Member's share of the Aggregation Costs and any Additional Program Costs. Any Additional Program Costs shall be apportioned among the participating members as provided in any Additional Program Agreement. Any Aggregation Costs of the Council shall be apportioned among the Members in the manner determined by the Board of Directors. The estimates shall be presented in enough detail so that the Assembly can determine their sufficiency. The Assembly shall consider the estimates and accept or modify the same. If an assessment or fee is to be paid by the Members to the Aggregation Fund or any Additional Program Fund, the Fiscal Agent shall deliver to the Members, the estimated appropriation for the next Fiscal Year and each Member's share of such costs. Each Member shall include its share of the Aggregation Costs and any Additional Program Costs in its appropriations (pursuant to Chapter 5705 of the Revised Code). Each member shall thereafter remit its share of Aggregation Costs and any Additional Program Costs to the Fiscal Agent.

If the aggregate contributions made pursuant to that estimated budget prove to be insufficient to pay the Aggregation Costs and any Additional Program Costs for that Fiscal year of the Council, the Board of Directors shall direct the Fiscal Agent to promptly notify in writing each Member of any additional Aggregation Costs and Additional Program Costs, the amount of any deficiencies and each Member's share of those additional costs, all as determined by the Board of Directors, whereupon each Member shall appropriate (pursuant to Chapter 5705 of the Revised Code) the amount stated in the notice and remit the same to the Fiscal Agent within forty-five (45) days after receipt of that written notice.

Failure by a Member to appropriate and remit any of its share of the Council Costs and Additional Program Costs pursuant to these Bylaws within sixty (60) days after the same shall become due shall be deemed a withdrawal by such Member pursuant to Section 6 of the Agreement unless the Member has petitioned the Board of Directors for an extension of time for payment and the Board of Directors has, by resolution, approved an extension to a date certain and the Member has remitted at least twenty-five percent of its share of the Aggregation Costs and any Additional Program Costs to the Fiscal Agent.

Under no circumstances shall the Fiscal Agent have the power to incur obligations for Aggregation Costs and Additional Program Costs in an amount which exceeds the total unspent amount appropriated for Aggregation Costs or any Additional Program Costs, respectively, and remitted to the Fiscal Agent by the Members pursuant to this Agreement, except as may be permitted by law.

## Section 9. <u>Conduct of Meetings</u>.

All meetings provided for in these Bylaws shall be conducted in accordance with the latest edition of <u>Robert's Rules of Order</u>, <u>Revised</u> unless otherwise directed by these Bylaws or by resolution of the Assembly, the Board of Directors, or any Advisory Committee with respect to the meetings of each of those bodies. The Chairman of each of those bodies shall be the parliamentary procedure officer and his or her decisions with respect to matters of parliamentary procedure shall be final.

## Section 10. <u>Amendments</u>.

These Bylaws may be modified, amended or supplemented in any respect upon approval of the modification, amendment or supplement by at least two-thirds of the Members' representatives, and the approved amendment, modification, or supplement shall only thereupon become binding upon all Members. Section 11. Initial Operation of the Council.

In the first Fiscal Year of the Council's operation, actions required by these Bylaws to be taken at the annual meeting of the Assembly or the first meeting of the Board of Directors shall be taken as soon as practical upon the establishment of the Council.

ADOPTED this 29<sup>th</sup> day of November, 2000.

[\_\_\_\_\_AMENDED this 13<sup>th</sup> day of November, 2008.]

Secretary's Certification This resolution was approved by a majority vote of a quorum of the membership or	1:		
Date:			
Chairman Joseph Migliorini			
Secretary: Leigh Herington			
Legend:			
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[Insertion]			
Deletion			
Moved from			
Moved to			
Style change			
Format change			
Moved deletion			
Inserted cell			
Deleted cell			
Moved cell			
Split/Merged cell			
Padding cell			

Redline Summary:		
No.	Change	Text
1-2	Change	"2110907v1" changed to "2110907v2"
3-4	Change	"2110907v1" changed to "2110907v2"
5-6	Change	"as Executive Secretary, if any, shall" changed to "as Executive Director, if any, shall"
7-8	Change	"an Executive Secretary and the offices" changed to "an Executive Director and the offices"
9-10	Change	"the Executive Secretary, by any two" changed to "the Executive Director, by any two"
11-12	Change	"(2) or more Written notice" changed to "(2) or more Directors. Written notice"
13-14	Change	"the Executive Secretary upon each Assembly" changed to "the Executive Director upon each Assembly"
15-16	Change	"the Executive Secretary upon each Director" changed to "the Executive Director upon each Director"
17-18	Insertion	(D) Attendance of Directors are held.
19	Change	"Officers. At" changed to "(D) Officers. At"
20-21	Change	"(3) Executive Secretary. The Executive" changed to "(3) Executive Director. The Executive"

22-23	Change	"The Executive Secretary shall provide" changed to "The Executive Director shall provide"
24-25	Change	"the Executive Secretary and distributed" changed to "the Executive Director and distributed"
26-27	Change	"The Executive Secretary shall provide" changed to "The Executive Director shall provide"
28-29	Change	"The Executive Secretary shall perform" changed to "The Executive Director shall perform"
30-31	Change	"no Executive Secretary is hired, the" changed to "no Executive Director is hired, the"
32-33	Change	"the Executive Secretary. The Board" changed to "the Executive Director. The Board"
34-35	Change	"the Executive Secretary may be held" changed to "the Executive Director may be held"
36-37	Change	"the Executive Secretary or Board of" changed to "the Executive Director or Board of"
38-39	Change	"the Executive Secretary for the Council." changed to "the Executive Director for the Council."
40-41	Change	"the Executive Secretary to be responsible" changed to "the Executive Director to be responsible"
42	Insertion	AMENDED this day of November, 2008.

## FIRM FULL REQUIREMENTS RETAIL ELECTRIC SUPPLY AGREEMENT

### BETWEEN

## GEXA ENERGY OHIO, LLC

with FPL Group Capital Inc. as Guarantor)

### AND

## NORTHEAST OHIO PUBLIC ENERGY COUNCIL

DATED

April 3, 2009

# FIRM FULL REQUIREMENTS RETAIL SERVICE AGREEMENT

Articles and Provisions Table of Contents

ARTICLE 1 DEFINITIONS	2
ARTICLE 2 RIGHTS GRANTED; GENERAL	8

2.1	General	. 8
2.2	Compliance with Law	. 9
2.3	Reservation of Rights	. 9
ARTICLE 3 (	OBLIGATIONS FOR FRES	9

	3.1	Schedule of Prices and Terms	9
	3.2	Obligation to Serve	9
	3.3	Obligation to Take Service	0
	3.4	Distribution Service	0
	3.5	Transmission Service1	0
	3.6	Supplier Product Renewable Content1	0
ARTICLE	E 4 CU	STOMER CHOICE, NOTIFICATION OF RIGHTS, ENROLLMENT,	
NON-IN'	TERF	ERENCE10	
	4.1	Customer Choice	10
	4.2	Identification of Eligible Consumers and Notification of Rights	11
	4.3	Processing of Lists and Switches	11
ARTICI	LE 5 T	ERM	12
	5 1	Term 1	2
	5.2	Extension of Term.	2
	0.2		_
ARTICL	E 6 CI	HANGE IN LAW1	2
AKTICLE	5 / CO	IZ IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	

ARTIC	LE 8 ADMINISTRATIVE FUND	13
	8.1 Administrative Fee	
	8.2 Other Fees.	13
ARTIC	LE 9 EVENTS OF DEFAULT AND REMEDIES	13
9.1	NOPEC Events of Default	13
9.2	Supplier Events of	13
Default		14
9.3 Ren	nedies and Damages For NOPEC Event of Default	15
9.4	Remedies and Damages For Supplier Event of Default	10
9.5	Termination Payment Calculation	
9.6	Notice of Termination Payment	
	15	15
9.7	Disputes With Respect to Termination Payment	15
9.8	Duty to Mitigate.	15
9.9	Obligations upon Termination or Expiration	15
9.10 Cc	operation Post Termination	16
9.11 Li	nitation of Remedies, Liability and Damages	
9.12 Me	ember Community Default Under Aggregation Program	
ARTIC	LE 10 PARTICIPATING CONSUMER EXIT CHARGES	16

10.1 Exit Fees.	16
10.2 Exit Fee Adjustment.	16
10.3 The Exit Fee Adjustment Calculation	. 16
ARTICLE 11 CONTINUING COVENANTS	.6

11.1 Standards of Management and Operations
11.2 Local Customer Service Access.
11.3 Responding to Requests for Information
11.4 Arranging for Full Requirements Retail Electric Supply
11.5 Non-Discriminatory Provision of Service
11.6 Approval of General Communications
11.7 Mail Inserts and Bill Messages.
11.8 Consumer Lists, Access to Customer Data Base and NOPEC
Confidential Information
11.9 Supplier Confidential Information
11.10 Compliance with Laws
11.11 Consent
11.12 Mutual Cooperation
ARTICLE 12 ROLES OF NOPEC AND MEMBER COMMUNITIES 21
12.1 No Title

		16
		17
•••••	•••••	
		18
		19
		21
		21
	•••••	21

12.3 Exculpation of NOPEC and Member Communities 13.1 Pricing 13.2 Price Schedule 13.3 Billing	21
13.1 Pricing. 13.2 Price Schedule. 13.3 Billing	
13.2 Price Schedule 13.3 Billing	
13.3 Billing	
	21
	$\frac{21}{22}$
13.6 Limitation of Supplier's Liability	22
13.7 Participating Consumer Credit Checks	<u>99</u>

••••••	•••••
ARTICLE 14 SERVICE PROTECTIONS FOR RESIDENTIAL CUSTOMERS	
ARTICLE 15 REPOR AND ACCESS TO INFORMATION	22
ARTICLE 16 RESOLUTION OF DISPUIES; CHC	DICE OF LAW
23	
16.1 Governing Law	23
16.2 Arbitration	
16.3 Venue	
ARTICLE 17 INDEMNIFICATION	23

17.1 Terms	
17.2 Survival	
ARTICLE 18 REPRESENTATIONS AND WARRANTIES	25

	25
18.2 Representations and Warranties by NOPEC	
ARTICLE 19 INSURANCE AND OTHER FINANCIAL SURETIES AN GUARANTEES	1 <b>D</b> 27

19.1 Insurance	27
19.2 Additional Financial Sureties and Guarantees.	27
19.3 Financial Information	27
ARTICLE 20 '1 ERMINATION WITHOUT LIABILITY	27

	27
Upon the occurrence of any of the following events	

#### FIRM FULL REQUIREMENTS RETAIL ELECTRIC SUPPLY AGREEMENT

This FIRM FULL REQUIREMENTS RETAIL ELECTRIC SUPPLY AGREEMENT is entered into by the Northeast Ohio Public Energy Council and Gexa Energy Ohio, LLC as of the date executed by both Parties as set forth below ("the Effective Date").

#### RE-CI.T AL S:

WHEREAS, the counties, municipal corporations and townships listed on Exhibit A hereto (the "NOPEC Member Communities") located in the Cleveland Electric Illuminating Company and Ohio Edison Company service territories have entered into an agreement establishing a regional council of governments under Chapter 167 of the Ohio Revised Code, the **Northeast Ohio Public Energy Council** ("NOPEC"), for the purposes of acting as a governmental aggregator under Ohio law and negotiating favorable rates and terms and conditions for the supply of electricity to eligible electric consumers located in the NOPEC Member Communities;

WHEREAS, the NOPEC Member Communities currently are members of NOPEC and participate, or wish to participate, in NOPEC's electric governmental aggregation program;

**WHEREAS,** NOPEC is a PUCO-certified governmental electricity aggregator;

WHEREAS, GEXA Energy Ohio, LLC., a Delaware limited liability corporation, ("Supplier"), is an indirect wholly-owned subsidiary of FPL Group Capital Inc., a Florida corporation ("Guarantor"), which is a wholly-owned subsidiary of FPL Group, Inc.;

WHEREAS, Supplier is a PUCO-certified Competitive Retail Electric Service ("CRES") Provider;

WHEREAS, Supplier intends to enter into a wholesale electric supply contract with Supplier's affiliate, **NextEra Energy Power Marketing, LLC,** a Delaware limited liability company ("Wholesale Supplier"), and an indirect wholly-owned subsidiary of Guarantor, to enable Supplier to provide firm full requirements retail electric power to eligible electric consumers residing within the NOPEC Member Communities pursuant to the NOPEC electric aggregation program and pursuant to the terms and conditions of this Agreement;

**WHEREAS,** NOPEC desires that Supplier supply firm full requirements retail electric power to eligible electric consumers in the NOPEC Member Communities; and

WHEREAS, in consideration of the benefits received by Guarantor in connection with this Agreement, Guarantor has agreed to guarantee the obligations of Supplier to NOPEC hereunder pursuant to the terms and conditions of the Guaranty attached as Exhibit D hereto. **NOW THEREFORE,** NOPEC and Supplier, intending to be bound hereby and in consideration of the mutual promises and covenants set forth therein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, hereby enter into this Firm Full Requirements Retail Electric Supply Agreement ("Agreement") as of this 3rd day of April, 2009 subject to the terms and conditions below.

#### ARTICLE I. DEFINITIONS

When used in this Agreement, the following terms, and other terms specifically defined in this Agreement, shall have the meanings given, unless a different meaning is expressed or clearly indicated by the context Words defined in this Article 1 which are capitalized shall be given their common and ordinary meanings when they appear without capitalization in the text. Words not defined herein shall be given their common and ordinary meanings.

- 1.1 Additional RECs means renewable energy credits that (i) meet all eligibility requirements set forth in the Green-e National Standard together with the Green-e Renewable. Electricity Certification Program, *National Standard Version 1.4*, and the Code of Conduct, in each case as amended, (ii) comprise a product that has been certified by Green-e under such standards, and (iii) are in accordance with the Green-e Code of Conduct and Customer Disclosure Requirements.
- 1.2 Adjusted Contract Price will be as defined in Section 13.5.
- 1.3 Adjusted SSO Price will be as defined in Section 13.5.
- 1.4 Adjusted Contract Price Discount means the difference between the Adjusted SSO Price and the Adjusted Contract Price.

- 1.5 Administrative Fee has the meaning in Section 8.1.
- 1.6 Affected Party shall have the meaning in Section 7.2(b).
- 1.7 Aggregation Program or NOPEC Aggregation Program. The NOPEC Power Supply Program, implemented on or before the Effective Date, pursuant to section 4928.20 of the Ohio Revised Code and the Plan of Operation and Governance adopted by NOPEC and the Member Communities.

- 1.8 Agreement. This Firm Full Requirements Retail Electric Supply Agreement.
- 1.9 **Bankrupt or Bankruptcy.** With respect to a Party or other entity, that such Party or other entity (i) is dissolved (other than pursuant to a consolidation, amalgamation or merger); (ii) becomes insolvent or is unable to pay its debts or fails or admits in writing its inability generally to pay its debts as they become due; (iii) makes a general assignment,

arrangement or composition with or for the benefit of its creditors; (iv) institutes or has instituted against it a proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditors' rights, or a petition is presented for its winding-up or liquidation, and, in the case of any such proceeding or petition instituted or presented against it, such proceeding or petition (a) results in a judgment of insolvency or bankruptcy or the entry of an order for relief or the making of an order for its winding-up or liquidation or (b) is not dismissed, discharged, stayed or restrained, in each case within 30 days of the institution or presentation thereof; (v) has a resolution passed for its winding-up, official management or liquidation (other than pursuant to a consolidation, amalgamation or merger); (vi) seeks or becomes subject to the appointment of an administrator, provisional liquidator, conservator, receiver, trustee, custodian or other similar official for it or for all or substantially all its assets; (vii) has a secured party take possession of all or substantially all its assets or has a distress, execution, attachment, sequestration or other legal process levied, enforced or sued on or against all or substantially all its assets and such secured party maintains possession, or any such process is not dismissed, discharged, stayed or restrained, in each case within 30 days thereafter; (viii) causes or is subject to any event with respect to it which, under the applicable laws of any jurisdiction, has an analogous effect to any of the events specified in clauses (i) to (vii) (inclusive); or (ix) takes any action in furtherance of or indicating its consent to, approval of, or acquiescence in, any of the foregoing acts.

- 1.10 **Business Day.** Any day on which Federal Reserve member banks in New York, New York are open for business.
- 1.11 Cap Percentage has the meaning in Section 7.1.
- 1.12 Change in Law Adjustment has the meaning in Section 6.1.
- 1.13 Change in Law Notice has the meaning in Section 7.2(b).
- 1.14 **Commercially Reasonable.** Any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known, or which in the exercise of due diligence, should have been known, at the time the decision was made, would have been expected in the industry to accomplish the desired result consistent with reliability, safety, expedition, project economics and applicable law and regulations.
- 1.15 Confidential Information has the meaning set forth in Section 11.8(c).
- 1.16 **Consumers.** One or more residential, commercial, industrial, municipal, or other consumers of electricity who receive electric supply service through the Distribution Company's distribution or transmission service from any supplier, at one or more locations within the geographic boundaries of a NOPEC Member Community.
- 1.17 Contract Price has the meaning set forth in Section 13.2.

1.18 **CRES Provider** means a competitive retail electric supplier certified by the PUCO pursuant to Chapter 4901:1-24 of the Ohio Administrative Code, Chapter 4901:1-21 of the Ohio Administrative Code, and Section 4928.08 of the Ohio Revised Code.

#### 1.19 Customer Savings.

- 1.20 Defaulting Party has the meaning set forth in Section 9.1 and 9.2.
- 1.21 **Distribution Company or Companies.** The Cleveland Electric Illuminating Company ("CET"), and/or Ohio Edison Company ("OE"), as the respective case may be, or any successor company(ies) or entity(ies) providing electricity distribution services in each Member Community, including generation supply under default or SSO rates.
- 1.22 Early Termination Date has the meaning set forth in Section 9.4.
- 1.23 Eligible Consumer. A Consumer who receives service through a single meter, and whose annual usage in a twelve month period prior to the Effective Date is less than 700,000 KWh, except for a Consumer that (i) has properly opted out of the Aggregation Program, (ii) has enrolled in the Percentage of Income Payment Plan pursuant to O.R.C. Section 4928.54, (iii) is served by another CRES Provider, (iv) is a "mercantile customer" as defined in O.R.C. Section 4928.01(A)(19; (v) has or requires the use of an interval meter; or (vi) is otherwise ineligible under Distribution Company tariffs or PUCO rules, as such tariffs and rules may be amended from time to time.
- 1.24 **Effective Date.** The effective date of this Agreement as defined in the introductory paragraph above.
- 1.25 **ESP.** An electric security plan filed by the Distribution Companies under O.R.C. Section 4928.143 which is approved by the PUCOand accepted by each Distribution Company.
- 1.26 Event of Default has the meaning set forth in Sections 9.1 and 9.2.
- 1.27 **Exited Customers** has the meaning set forth in Section 10.1
- 1.28 Exit Fee has the meaning set forth in Section 10.1.
- 1.29 Exit Fee Adjustment has the meaning set forth in Section 10.2.
- 1.30 Expiration Date has the meaning set forth in Section 5.1.
- 1.31 FERC. The Federal Energy Regulatory Commission.

- 1.32 Force Majeure. Any cause not within the reasonable control of the Party affected thereby which precludes that Party from carrying out, in whole or in part, its obligations under this Agreement, including, but not limited to: Acts of God; winds; hurricanes; tornadoes; fires; epidemics; landslides; earthquakes; floods; other natural catastrophes; strikes; lock-outs or other industrial disturbances; acts of public enemies; acts, failures to act or orders of any kind of any Governmental Authority acting in its regulatory, legislative or judicial capacity or of a Distribution Company or Companies, provided, however, that any such discretionary acts, failure to act or orders of any kind by NOPEC or a Member Community may not be asserted as an event of Force Majeure by NOPEC or a Member Community as the case may be; insurrections; military action; war, whether or not it is declared; sabotage; riots; civil disturbances or explosions, or any curtailment, suspension, discontinuance, reversal or interruption of service, irregular service, power outage, voltage or amperage fluctuations, or similar problems. Nothing in this provision is intended to excuse any Party from performing due to any governmental act, failure to act, or order, where it was reasonably within such Party's power to prevent or comply with such act, failure to act, or order. Economic hardship of either Party shall not constitute an event of Force Majeure.
- 1.33 **Firm Full Requirements Retail Electric Supply or FRES.** Service under which Supplier provides all of the energy, capacity, ancillary services, transmission service, transmission and distribution losses, congestion management, and such other services or products that are required for <u>ranil</u> firm electric supply to Participating Consumers at the Point of Delivery, recognizing that the Distribution Company provides utility distribution service from the Point of Sale to the Point of Delivery.
- 1.34 GAGG List has the meaning set forth in Section 11.8(a).
- 1.35 **General Communications.** The type of communications described and defined in Article 10 (General Communications) herein.
- 1.36 **Governmental Authority.** Any national, state or local government, or any political subdivision thereof, independent system operator, regional transmission owner or operator or any other governmental, judicial, regulatory, public or statutory instrumentality, authority, body, agency, department, bureau, or entity, having jurisdiction over Supplier or NOPEC, excluding NOPEC and all Member Communities.
- 1.37 **Governmental Rule.** Any law, rule, regulation, ordinance, order, code, permit, interpretation, judgment, decree, or similar form of decision of any Governmental Authority having the effect and force of law and applicable to Supplier or NOPEC.
- 1.38 **ISO.** Midwest Independent System Operator ("MISO"), or such successor or other entity which is regulated by the FERC and has regulatory authority over the scheduling, transmission and delivery of electricity to the Point of Delivery.
- 1.39 KWh, kW. Kilowatt-hour and kilowatt, respectively.

- 1.40 **Member Communities or NOPEC Member Communities.** The member municipal corporations, townships, or counties which, by authorization of voters and adoption of legislation to join NOPEC, take part in the Aggregation. Program.
- 1.41 New Taxes has the meaning in Section 6.2.
- 1.42 **NOPEC.** The Northeast Ohio Public Energy Council, a regional council of governments established in accordance with Ohio law, and acting as agent for the Member Communities.
- 1.43 **NOPEC Agreement.** The Agreement establishing the Northeast Ohio Public Energy Council effective as of November 8, 2000, as amended, and as may be further amended from time-to-time.
- 1.44 **NOPEC Supplier Service Start Pre-requirements.** These requirements include, but are not limited to, the preparation of opt-out notice and terms of service disclosures as required by PUCO rules and regulations. for ORES Providers and submission to the PUCO, review of these disclosures by the PUCO, mailing of opt-out notices and associated disclosures to Eligible Consumers, receipt and processing of response to mailings from Eligible Consumers, and arrangements with Distribution Companies to enroll Participating Consumers.
- 1.45 Participating Consumer. An Eligible Consumer who is being served by Supplier.
- 1.46 **Parties.** NOPEC and Supplier, as the context requires. In the singular, "Party" shall refer to either of the preceding.
- 1.47 Phased-In Contract Price .
- 1.48 **Plan of Operation and Governance.** The NOPEC Plan of Operation and Governance as adopted by NOPEC and the Member Communities, and as amended from time-to-time.
- 1.49 **Point of Delivery.** The point of interconnection between MISO Pool Transmission Facilities and the transmission facilities of the Distribution Company.
- 1.50 **Point of Sale.** The electric meter(s) for each Participating Consumer's account, as designated by the Distribution Company.
- 1.51 **Prevailing Party.** Prevailing Party shall have the meaning set forth in Section 15.2 of this Agreement.

- 1.52 **Pricing Letter Date.** Pricing Letter Date is the date on which the Parties have signed, and acknowledged their concurrence with the terms set forth in, a Pricing Letter substantially in the form of Exhibit B.
- 1.53 PUCO. The Public Utilities Commission of Ohio or any successor state utility regulatory agency.
- 1.54 **PUCO Order** means a final, non-appealable order duly issued by the PUCO in the FirstEnergy Companies Stipulated ESP filed with the PUCO on February 19<sup>th</sup>, 2009 as part of their Amended ESP Application and as further amended by the Supplemental Stipulation filed at the PUCO on February 26<sup>th</sup>, 2009.
- 1.55 Regulatory Event has the meaning in Section 6.1.
- 1.56 Roll-Off Month has the meaning in Section 9.10.
- 1.57 Roll-Off Termination Process has the meaning set forth in Section 9.10.
- 1.58 RPS has the meaning in Section 3.6.
  - 1.59 **Scheduled Initiation of Service Date.** The date(s) on which Supplier initiates electric service to Participating Consumers, as set forth in Section 5.1 of this Agreement.
- 1.60 Service Contacts has the meaning in set forth in Section 11.3.
- 1.61 SSO has the meaning set forth in Section 9.4
- 1.62 **SSO Retail Full Requirements Generation Rate** means the rate for full requirements retail electric generation supply offered by the applicable Distribution Company for Default or Standard Offer Service supply under its tariff net of any generation phase-in credit or deferrals authorized by the PUCO.
- 1.63 **Stipulation** means the Stipulation and Recommendation filed with the PUCO on February 19, 2009 in Case Nos. 08-935-EL-SSO and 09-21-EL-ATA, et seq.
- 1.64 **Supplemental Stipulation** means the Supplemental Stipulation filed with the PUCO on February 26, 2009 in Case Nos. 08-935-EL-SSO and 09-21-EL-ATA, et seq.
- 1.65 **Supplier.** GEXA Energy Ohio, LLC, a Delaware limited liability company duly authorized to conduct business in the State of Ohio.
- 1.66 **Supplier Agreement.** The agreement between Supplier and each Distribution Company required by each Distribution Company's ORES Provider tariff(s).

- 1.67 **Taxes** means all federal, state, municipal or other governmental taxes, duties, fees, levies, premiums, assessments, surcharges, withholdings, or any other charges of any kind relating to the sale, purchase or delivery of electricity, except for any taxes assessed or imposed (whether federal state or local) on or measured by income of Supplier, or on Supplier's corporate franchise or commercial activity.
- 1.68 Term has the meaning set forth in Section 5.1.
- 1.69 Termination Payment has the meaning set forth in Section 9.5.
- 1.70 Termination Quantity has the meaning set forth in Section 9.5.
- 1.71 Termination Payment Dispute Notice has the meaning set forth in Section 9.7.
- 1.72 Total Contract Rate has the meaning set forth in Section 13.3.
- 1.73 **Transmission Service** Transmission Service shall include Network Integration Transmission Service, Transmission Losses and Ancillaries, as such terms are used by the ISO, and the distribution line losses assessed by the Distribution Companies on CRES Providers and/or their customers.
- 1.74 Uncollectible Adder has the meaning set forth in Section 13.4.
- 1.75 Wholesale Supplier NextEra Energy Power Marketing, LLC, a Delaware limited liability company duly authorized to provide wholesale electric service to Supplier.

#### ARTICLE 2 RIGHTS GRANTED; GENERAL

**2.1 General.** NOPEC hereby grants Supplier the exclusive right to provide Firm Full Requirements Retail Electric Supply to Participating Consumers pursuant to the terms of NOPEC's Plan of Operation and Governance, expressly subject to the terms and conditions set forth in this Agreement. In accepting these terms, the Parties recognize that Supplier is authorized only to supply Firm Full Requirements Retail Electric Supply to Participating Consumers and sell only such other products to Consumers as specifically provided hereunder. Supplier further recognizes that (a) this Agreement does not guarantee that any individual Consumer in the Member Communities will participate in the Aggregation Program and be served by the Supplier; and (b) Supplier has the sole obligation of making appropriate arrangements with the ISO and the Distribution Companies and any other arrangements for transmission, distribution, and other services which may be necessary so that Participating Consumers receive the Firm Full Requirements Retail Electric Supply to be delivered pursuant to this Agreement. NOPEC specifically authorizes the Distribution Companies to provide, and Supplier the right to obtain and utilize as required, all billing and historical energy consumption information for Participating Consumers' accounts that are reasonably available from the Distribution Companies. If further action is required by the Distribution Companies to authorize Supplier to receive such historical energy consumption and billing data, NOPEC agrees to use reasonable efforts, at Supplier's cost, to assist Supplier, if so requested by it, in obtaining such information; including, without limitation, assisting Supplier, at Supplier's cost, in obtaining permission from Consumers and/or the PUCO, where necessary as a prerequisite to the provision of such information.

2.2 Compliance with Law. Supplier represents and warrants to NOPEC that it has exercised due diligence to review and has fully complied or prior to the time of performance, will comply, with all material regulations and orders of the FERC, the ISO and PUCO, the settlements, stipulations and protocols duly established by FirstEnergy Corp. and/or the PUCO, and the requirements of any other Governmental Authorities and Governmental Rules of which Supplier is aware having direct jurisdiction over any of the transactions contemplated by this Agreement, all of which are applicable to Supplier's performance under this Agreement. To the extent that any of the Government Rules are inconsistent with or opposed to any provision of this Agreement, the Plan of Operation and Governance or the NOPEC Agreement, such Government Rules shall control.

**2.3 Reservation of Rights.** NOPEC and the NOPEC Member Communities expressly reserve the right to adopt such local laws, ordinances, rules, regulations and policies as they or any of them may deem necessary in the exercise of their governmental powers, and nothing in this Agreement shall be interpreted as limiting the governmental powers of NOPEC or of the NOPEC Member Communities as may be granted by law; provided, however, that NOPEC may not take any action in derogation of or that in any way interferes with the rights and privileges of Supplier and its affiliates in connection with this Agreement, and any conflict between this Agreement and any such laws, ordinances, rules, regulations and policies of NOPEC or of the NOPEC Member Communities adopted after the Effective Date, shall be governed by this Agreement.

#### ARTICLE 3 OBLIGATIONS FOR FRES

**3.1 Schedule of Prices and Terms.** Supplier agrees to provide Firm Full Requirements Retail Electric Power Supply to Participating Consumers and other related services as expressly set forth herein in accordance with the prices set forth in Exhibit B to this Agreement, which Exhibit is attached and hereby incorporated by reference into this Agreement.

**3.2 Obligation to Serve.** As between the Parties, Supplier has the sole obligation to obtain sources of supply, whether from generating facilities owned or controlled by its affiliates, including the Wholesale Supplier, through bilateral transactions, or the market, as may be necessary to provide FRES for all Participating Consumers. Supplier shall make appropriate arrangements to obtain such energy, capacity, and ancillary services for load-following purposes as necessary to provide or cause to be provided FRES for Participating Consumers to the Point of Sale. Unless otherwise mutually agreed by the Parties, in no event will Supplier be obligated to

serve any Participating Consumer that invokes any right it may have under law to receive separate bills for generation services and distribution services.

**3.3 Obligation to Take Service.** With respect to this Agreement, NOPEC represents that it has the contractual right to enter into this Agreement, to delegate to Supplier the obligation to obtain sources of supply for Participating Consumers, and shall enforce its contractual agreements and tights with the NOPEC Member Communities to effectuate the purpose of this Agreement.

**3.4 Distribution Service.** The prices set forth in Exhibit B include line losses assessed by the Distribution Companies upon ORES Providers and/or their customers, but do not include current and future distribution service charges collected by each Distribution Company under its respective distribution service tariff. The Parties understand that such distribution service charges will be charged to Participating Consumers and collected by the applicable Distribution Company under its then applicable distribution tariff. If in the future Supplier becomes responsible for such distribution service charges, Supplier shall notify NOPEC in writing describing such charges and, thereafter, Supplier shall be entitled to collect such charges from Participating Consumers unless prohibited by any Governmental Rules.

**3.5 Transmission Service.** Supplier has the sole obligation of making all arrangements with the ISO to obtain Network Integration Transmission Service and to procure all Ancillary Services (as such terms are defined by the rules and regulations of the ISO) as may be necessary to ensure delivery of FRES to the Point of Sale. Supplier will recover, through a separate charge, all New Transmission Services and Ancillary Services costs in accordance with Section 13.2(b) and recover or refund as the case may be any Ancillary Services Adjustment in accordance with Section 13.2(c).

**3.6 Supplier Product Renewable Content.** Supplier agrees that it shall comply with the renewable portfolio standard requirements of Ohio law and PUCO rules applicable to the Distribution Companies (hereinafter "RPS") in each calendar year of the tern of this Agreement through procuring compliant renewable energy credits or paying the alternative compliance amount and such cost shall be included as part of the Contract Price.

Further, in each year of the Term of this Agreement or part thereof, Supplier shall obtain sufficient Additional RECs in a volume equal to 50% of the RPS volumes required as of the Pricing Letter Date for the applicable year or part thereof at no cost to the Participating Consumers and the cost for Additional RECs shall be included as part of the Contract Price.

#### ARTICLE 4 CUSTOMER CHOICE, NOTIFICATION OF RIGHTS, ENROLLMENT, NON-INTERFERENCE

**4.1 Customer Choice.** The Parties acknowledge and agree that, subject to existing agreements that Eligible Consumers have individually with various CRES Providers, all Eligible Consumers have the right, pursuant to Ohio law, to change their source of electricity supply.

The Parties represent and warrant to each other that they shall not unreasonably interfere with the lawful right of Eligible Consumers to opt out of the Aggregation Program, subject to the Exit Fees described herein. The Parties shall comply with any lawful rules, regulations, or tariffs of the PUCO, the Plan of Operation and Governance and the Distribution Companies regarding the process of opting out or of switching from one source of electric supply to another.

**4.2 Identification of Eligible Consumers and Notification of Rights. Consistent** with the requirements of Ohio law, NOPEC, at the expense of the Supplier, shall cause Supplier to identify Consumers who are Eligible Consumers and notify them of the approximate date upon which they will be enrolled in the Aggregation Program, and that the Supplier will be providing Firm Full Requirements <u>Retail</u> Electric Supply to the Eligible Consumers subject to the opt-out provisions of Ohio law and the Plan of Operation and Governance. Such notice shall include a statement of price and instructions on how to opt-out of the Aggregation Program, if the Eligible Consumer so chooses, including notice that an Exit Fee as set forth herein shall be charged to any Participating Consumer who leaves the Aggregation Program at any time other than within the 21-day period prescribed in such notice, except as provided in Section 10.1 hereof. Such notice also shall include a statement that any Participating Consumer that does not pay its bill in within five (5) days of the payment due date for such bill may be assessed a late payment fee in the amount of 1.5% of the amount of such bill.

#### 4.3 Processing of Lists and Switches.

a. NOPEC shall cause Supplier to use the most, recent customer list available from the Distribution Companies to prepare the list of Eligible Consumers who receive notice pursuant to Section 4.2. NOPEC shall cooperate with Supplier so that Supplier can obtain the list of Eligible Consumers and send the notice to Eligible Consumers no later than thirty (30) days from the date that the most recent customer list becomes available from the Distribution Companies. NOPEC shall cooperate with Supplier can maintain a list of Eligible Consumers who opted out or whose opt out notice was undeliverable. Supplier shall remove such Consumers from the list of Consumers to be enrolled. Supplier shall process the enrollments in accordance with applicable PUCO regulations, and PUCO-approved requirements of the Distribution Companies.

b. Except as otherwise provided in Section 4.3(c), Consumers who become Eligible Consumers after the Pricing <u>14tter</u> Date shall have the light to receive FRES from the Supplier, subject to the then-existing Supplier prices set forth in Exhibit B. Supplier and NOPEC agree to conduct "movers/refreshers" opt-out mailings, at Supplier's expense, by sending opt out notices to such newly Eligible Consumers periodically at times agreed upon by Supplier and NOPEC, but no less than every three (3) months.

c. Eligible Consumers in new Member Communities that join NOPEC and the Aggregation Program after the Pricing Letter Date, at NOPEC's election, shall receive FRES for the remaining term of this Agreement provided that Supplier and NOPEC negotiate in good faith and agree upon price(s) at the time a new Member Community joins NOPEC.

#### ARTICLE 5 TERM

**5.1 Term.** This Agreement will be effective on the Effective Date. Delivery of FRES by Supplier to Participating Consumers will begin on or about August 1, 2009, or as soon as NOPEC Supplier Service Start Pre-requirements can be completed after the FirstEnergy SSO rate is determined (the "Scheduled Initiation of Service Date") or any other date as mutually agreed between the Parties and confirmed in the Pricing Letter substantially in the form of Exhibit B, and at the rates specified in such Pricing Letter. This Agreement will terminate on the last meter reading date for each of the respective Participating Consumers on or before May 31, 2011 (the "Expiration Date") Supplier has the right to request a "special" meter reading by the Distribution Company to initiate energy delivery and agrees to pay all costs, if any, for such special meter reading. Certain provisions of this Agreement will survive the expiration or termination of this Agreement as provided in Section 21.12, including but not limited to Article 9.9.

#### 5.2 Extension of Term.

#### ARTICLE 6 CHANGE IN LAW

#### 6.1 Regulatory Event.

**6.2 New Taxes.** For purposes of this Section 6.2, "New Taxes" shall mean (i) any Taxes not in effect as of the Effective Date enacted by a Governmental Authority or NOPEC Member Communities to be effective after the Effective Date of this Agreement with respect to Firm Full Requirements Retail Electric Supply, or (ii) any Governmental Rule enacted and effective after the Effective Date of this Agreement resulting in application of any existing tax to a new or different class of persons receiving service under this Agreement for which Supplier is responsible. If any New Tax is imposed for which NOPEC or Supplier is responsible, the amount of such New Tax shall be allocated and collected from the Participating Consumers on the applicable monthly bills.

#### ARTICLE 7 CONDITIONS PRECEDENT.

#### 7.1 Supplier Conditions Precedent. 7.2

**Mutual Conditions Precedent.** 

7.3 Satisfaction of Conditions Precedent.

#### ARTICLE 8 ADMINISTRATIVE FUND

8.1 Administrative Fee. 8.2 Other Fees..

#### ARTICLE 9 EVENTS OF DEFAULT AND REMEDIES

**9.1 NOPEC Events of Default.** An "Event of Default" shall mean, with respect to NOPEC ("Defaulting Party"), the occurrence of any of the following:

a. Any representation or warranty made by NOPEC in Article 17 hereunder is false or misleading in any material respect when made or when deemed made or repeated and such representation or warranty is material to the obligations of the Parties hereunder;

b. The failure to perform any material covenant or obligation set forth in this Agreement and such failure is not remedied within thirty (30) days after written notice thereof unless the cure requires longer than the thirty (30) days to effect and NOPEC is diligently working towards such cure;

c. NOPEC becomes Bankrupt;

**9.2 Supplier Events of Default(A)** An "Event of Default" shall mean, with respect to Supplier ("Defaulting Party"), the occurrence of any of the following:

a. the failure to make, when due, any undisputed payment required pursuant to Section 7.1 of this Agreement if such failure is not remedied within ten (10) Business Days after written notice;

b. any representation or warranty made by Supplier in Article 17 hereunder is false or misleading in any material respect when made or when deemed made or repeated and such representation or warranty is material to the obligation of the Parties hereunder;

c. termination of the Supplier Agreement with the Distribution Companies due to Supplier's default thereunder;

d. the failure to perform any material covenant or obligation set forth in this Agreement if such failure is not remedied within thirty (30) days after written notice thereof, unless the cure period reasonably requires more than thirty (30) days to effect and Supplier is diligently working towards such cure;

e. Supplier becomes Bankrupt;

Supplier consolidates with, or merges with or into, or transfers all or substantially all of its assets to, another entity, or assigns the Agreement or any rights, interests, or obligations hereunder without the prior written consent of NOPEC when such consent is required, and, at the time of such consolidation, merger, transfer or assignment, the resulting, surviving, transferee, or assigned entity <u>fails</u> to assume all the obligations of Supplier under this Agreement;

g. the failure of Supplier to comply with its obligations pursuant to Article 19 if such failure is not remedied within three (3) Business Days after written notice.

h. with respect to Supplier's Guarantor but if and only if Supplier does not provide within fifteen (15) Business Days an alternative guaranty substantially in the form of Exhibit D2, a letter of credit **in** the form of Exhibit D1 or cash **in** an amount reasonably satisfactory to NOPEC, but not to exceed the amount of the Guaranty:

- i. if any representation or warranty made by the Guarantor in connection with this Agreement is false or misleading in any material respect when made or when deemed made or repeated;
- ii. the failure of the Guarantor to make, when due, any undisputed payment required or to perform any other material covenant or obligation in any guaranty made by Guarantor in connection with this Agreement while in effect and such failure shall not be remedied within ten (10) Business Days after written notice thereof;
- iii. the failure of any guaranty made by Guarantor in connection with this Agreement to be in full force and effect for purposes of this Agreement (other than in accordance with its terms) prior to the satisfaction of all obligations of Supplier under this Agreement covered by such guaranty without the written consent of NOPEC;
- iv. the Guarantor repudiates, disaffirms, disclaims, or rejects, in whole or in part, or challenges the validity of any guaranty made by Guarantor in connection with this Agreement (other than in accordance with its terms);

Or

v. the Guarantor becomes Bankrupt.

#### 9.3 Remedies and Damages For NOPEC Event of Default.

#### 9.4 Remedies and Damages For Supplier Event of Default. 9.5

#### **Termination Payment Calculation.**

#### 9.6 Notice of Termination Payment.

**9.7 Disputes With Respect to Termination Payment.** If Supplier disputes NOPEC's calculation of the Termination Payment, in whole or in part, Supplier shall, within ten (10) Business Days of receipt of NOPEC's calculation of the Termination Payment, provide to NOPEC a notice that it intends to dispute the calculation of the Termination Payment ("Termination Payment Dispute. Notice"), provide full and detailed particulars as to the specific items of dispute, and either Party may elect to resolve the dispute pursuant to the provisions of Article 16.

**9.8 Duty to Mitigate.** Each Party agrees that it has a duty to mitigate damages and covenants that it will use Commercially Reasonable efforts to minimize damages it may incur as a result of the other Party's failure to perform pursuant to this Agreement.

**9.9 Obligations upon Termination or Expiration.** Following termination or expiration of this Agreement, the Parties shall each discharge by performance all obligations due to any other Party that arose prior to the date of termination of the Agreement. Upon the effective date of termination or expiration of the Agreement, all lights and privileges granted to Supplier to provide FRES shall cease, with the exception of the right to collect all monies due for services rendered to that date.

**9.10 Cooperation Post Termination.** Upon the expiration or termination of this Agreement, Supplier and NOPEC shall cooperate with one another to take all Commercially Reasonable actions so that Participating Consumers will "roll-off' of the Supplier's Firm Full Requirements Retail Electric Supply during the billing cycle month ending on the applicable termination or expiration date (such billing cycle month, the "Roll-Off Month"). Supplier and NOPEC shall work together in good faith to ensure proper processing of transactions in accordance with applicable standard Ohio switching rules and EDI transactions. The termination process described in this Section may be referred to herein as the "Roll-Off Termination Process".

9.11 Limitation of Remedies, Liability and Damages. THE PARTIES CONFIRM THAT THE EXPRESS REMEDIES AND MEASURES OF DAMAGES PROVIDED IN ARTICLE 9 OF THE AGREEMENT SATISFY THE ESSENTIAL PURPOSES HEREOF. FOR BREACH OF ANY PROVISION FOR WHICH ARTICLE 9 PROVIDES THE EXPRESS REMEDY OR MEASURE OF DAMAGES, SUCH EXPRESS REMEDY OR MEASURE OF DAMAGES SHALL BE THE SOLE AND EXCLUSIVE REMEDY, THE OBLIGOR'S LIABILITY SHALL BE LIMITED AS SET FORTH IN SUCH PROVISIONS AND ALL OTHER REMEDIES OR DAMAGES AT LAW OR IN EQUITY ARE WAIVED. FOR ALL OTHER PROVISIONS OF THIS AGREEMENT FOR WHICH NO REMEDY OR MEASURE OF DAMAGES IS EXPRESSLY PROVIDED, THE OBLIGOR'S LIABILITY SHALL BE LIMCIED TO DIRECT ACTUAL DAMAGES ONLY, SUCH DIRECT ACTUAL DAMAGES SHALL BE THE SO' F. AND EXCLUSIVE REMEDY AND ALL OTHER REMEDIES OR DAMAGES AT LAW OR IN EQUITY ARE WAIVED. NEITHER PARTY SHALL BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, PUNITIVE, EXEMPLARY OR INDIRECT DAMAGES, LOST PROFITS OR OTHER BUSINESS INTERRUPTION DAMAGES, BY STATUTE, IN TORT OR CONTRACT, UNDER ANY INDEMNITY PROVISION PURSUANT TO ARTICLE 17 OR OTHERWISE. IT IS THE INTENT OF THE PARTIES THAT THE LIMITATIONS HEREIN IMPOSED ON REMEDIES AND THE MEASURE OF DAMAGES BE WITHOU'T REGARD TO THE CAUSE OR CAUSES RELATED THERETO, INCLUDING THE NEGLIGENCE OF ANY PARTY, WHETHER SUCH NEGLIGENCE BE SOLE, JOINT OR CONCURRENT, OR ACTIVE OR PASSIVE. TO THE EXTENT ANY DAMAGES REQUIRED TO BE PAID HEREUNDER ARE LIQUIDATED, THE PARTIES ACKNOWLEDGE THAT THE DAMAGES ARE DIFFICULT OR IMPOSSIBLE TO DETERMINE, OR OTHERWISE OBTAINING AN ADEQUATE I AND THE DAMAGES CALCULATED HEREUNDER **REMEDY IS INCO** CONSTITUTE A REASONABLE APPROXIMATION OF THE HARM OR LOSS.

9.12 Member Community Default Under Aggregation Program.

#### ARTICLE 10 PARTICIPATING CONSUMER EXIT CHARGES

#### 10.1 Exit Fees.

10.2 Exit Fee Adjustment.

10.3 The Exit Fee Adjustment Calculation.

#### ARTICLE 11 CONTINUING COVENANTS

**11.1 Standards of Management and Operations.** In performing its obligations hereunder, during the term of this Agreement, Supplier shall exercise reasonable care to employ an adequate number of competently trained and experienced personnel to carry out its responsibilities; that its supply arrangements for electricity to the Point of Delivery as are

required under this Agreement are reliable; and that, at all times with respect to Participating Consumers, it employs commercially reasonable <u>skills</u>, systems and methods available to it.

**11.2 Local Customer Service Access.** At Supplier's cost and obligation, Supplier shall make available throughout the term of the Agreement from and after the initial opt-out mailing, a toll-free telephone number for Consumers to contact Supplier to resolve concerns, answer questions and transact business with respect to the service received from Supplier. Supplier will also provide a link on its website to the NOPEC website which will be available to Consumers for general information.

**11.3 Responding to Requests for Information.** Supplier and NOPEC shall, during normal business hours, respond promptly and without charge to reasonable requests by the other for information or explanation regarding the matters covered by this Agreement and the supply of electricity to Participating Consumers. Supplier agrees to designate a service representative or representatives (the "Service Contacts") who shall be available for these purposes, and <u>shall</u> identify the office address and telephone number of such representative(s). Whenever necessary to comply with this Article, the Service Contact shall call upon other employees or agents of Supplier to obtain such information or explanation as may be reasonably requested. Supplier shall refer reliability, line repair, or service interruption or billing issues to the Distribution Company. Nothing in this Article shall be interpreted as limiting the obligation of Supplier to respond to complaints or inquiries from Participating Consumers' Counsel regarding customer service under this Agreement. Upon request by NOPEC, Supplier shall provide a summary of the number and types of customer service issues and complaints and the status of resolution of those issues and complaints in connection with this Agreement.

**11.4 Arranging for Full Requirements Retail Electric Supply.** Supplier shall arrange, or cause its Wholesale Provider to arrange, with the ISO, or any other relevant regional transmission organization, the provision of FRES to the Distribution Company for delivery to Participating Consumers. Supplier shall not be responsible to NOPEC, Member Communities, or Participating Consumers in the event the Distribution Company disconnects, suspends, curtails or reduces service to Participating Consumers (notwithstanding whether such disconnection is directed by the ISO) in order to facilitate construction, installation, maintenance, repair, replacement or inspection of any of the Distribution Company's facilities, or to maintain the safety and reliability of the Distribution Company's electrical system, or due to emergencies, forced outages, potential overloading of the Distribution Company's transmission and/or distribution circuits, or Force Maj ewe or for any other reason permitted by the Distribution Company's tariff or any other acts or omissions of the Distribution Company(ies).

**11.5 Non-Discriminatory Provision of Service.** Supplier shall arrange for FRES to the Point of Delivery for all Participating Consumers except as provided below in this Article 11. Subject to the prices contained in Exhibit B, electricity shall be provided on a non-discriminatory basis; provided, however, those prices and other terms may vary in accordance with rate classes of Participating Consumers (e.g., residential, commercial, municipal, industrial) as appear in

Exhibit A. To the extent applicable, Supplier's prices, terms and conditions shall be in accordance with Ohio law, PUCO regulations, and other applicable provisions of law. To the extent required by law, Supplier may not deny service to an Eligible Consumer for failure to pay the bills of any other electric company (whether engaged in the distribution, transmission, or generation of electricity) or of any other aggregator, marketer or broker of electricity, but may reasonably deny or condition new service, or terminate existing service, based upon the Participating Consumer's failure to pay bills from Supplier, subject to applicable provisions of law. Provision of FRES shall be subject to Supplier's credit policies, to the extent permitted by law and as described in the Opt-out notice Terms and Conditions in Exhibit F, to be attached on the Pricing Letter Date.

11.6 Approval of General Communications. Supplier shall cooperate with NOPEC in the drafting and sending of messages and information to Consumers concerning NOPEC or any matter arising under or related to this Agreement. Supplier shall, prior to sending any direct mail, advertising, solicitation, bill insert, electronic mail, or other similar written or electronic communication (collectively, "General Communications") to Consumers (but excluding individually drafted or tailored communications responding to the specific complaint or circumstance of an individual consumer), provide a copy of such General Communication to NOPEC for its prior review. NOPEC shall have the right to disapprove such General Communications and suggest revisions if it makes a Commercially Reasonable determination that the General Communication would be inconsistent with the put-poses and goals of NOPEC, factually inaccurate or likely to mislead; provided, however: (i) that the General Communication shall be deemed approved if NOPEC fails to respond within seven (7) Business Days; and (ii) that no approval shall be necessary for any General Communication (a) regarding any emergency situation involving any risk to the public health, safety or welfare; (b) which has been approved by the PUCO, or any other Governmental Authority; or (c) in the nature of routine monthly or periodic bills, or collection notices. If NOPEC, acting on behalf of one or more Member Communities, objects to a mailing or other communication, based on a Commercially Reasonable determination that it is inconsistent with the goals of NOPEC, Supplier, after consultation as provided in this Article 11, may nevertheless elect to send such mailing or communication if approved pursuant to this Section, or provided that it: i) clearly indicates on such mailing that it has not been endorsed by the Member Community and/or NOPEC, ii) has previously provided all Consumers a meaningful chance to opt not to receive such General Communications, and ii) has stated in connection with such chance to opt not to receive such communications that "NOPEC and the Member Communities want to protect Consumers from receiving marketing materials if you do not wish to do so," and iv) has otherwise sought input from NOPEC as to the means by which Consumers are given a chance to remove their names from any list which may receive General Communications. Supplier shall indemnify and hold NOPEC and its Member Communities harmless from any claims from third parties arising from bill inserts made under the direction of Supplier.

**11.7 Mail Inserts and Bill Messages.** Supplier agrees that if it conducts mailings with Participating Consumers directly, and unless prevented for regulatory or other such reasons from doing so, it shall allow NOPEC to include no less than three (3) inserts per year into such

mailings, provided that NOPEC pays the cost of printing, reproducing, and inserting such mail insert and any incremental postage or handling costs Supplier may incur as a result of including such bill insert. Supplier shall provide a copy of such communications to NOPEC. Supplier further agrees that it shall, at its direct cost, if any, and to the extent that it does not conflict with planned use of any message space by Supplier, provide NOPEC access to any message space on any bills Supplier sends to Consumers, to the extent any bills it sends directly or indirectly through the Distribution Company or other entity contain a bill message space under the control of Supplier. Supplier shall have the right to disapprove such general communications from NOPEC and suggest revisions if it finds the communication inconsistent with its business interests, factually inaccurate or likely to mislead; provided, however: (a) that the communication shall be deemed approved if the Supplier fails to respond within seven Business Days; and (b)that no approval shall be necessary for any communication which has been ordered by the PUCO, or any lawful authority (other than NOPEC and its member Communities) to be so communicated. NOPEC shall permit Supplier to recoup through the rates charged hereunder the cost of any defense against and any payment of a claim(s) from third parties arising from bill or mail inserts made under the direction of NOPEC.

## 11.8 Consumer Lists, Access to Customer Data Base and NOPEC Confidential Information.

a. Consistent with applicable laws and regulations, Supplier shall provide NOPEC or its designee on a regular quarterly basis a list of Participating Consumers being served by the Supplier, including such reasonable identifying, aggregate consumption and other information as NOPEC may request. NOPEC shall request from the Distribution Company(es) on a monthly basis for Supplier's benefit the "GAGG list" of total Eligible Customers.

b. Supplier acknowledges that NOPEC has provided Supplier with certain proprietary and confidential information, including but not limited to customer lists, relating to consumers in NOPEC communities.

c. Notwithstanding anything to the contrary contained in that certain Confidentiality Agreement dated as of May 12, 2008 by and between FPL Energy Power Marketing, Inc. and NOPEC, Inc. (the "Confidentiality Agreement"), and in addition to the terms contained therein, for purposes of this Agreement, "Confidential Information" means and includes all information pertaining to Consumers in the NOPEC Member Communities or which is otherwise indicated by **NOPEC** to be Confidential Information, which has been or will be delivered by NOPEC to Supplier, subject to exceptions inSection 11.9. Such Confidential Information includes all analyses, compilations, studies, or other documents or records, including but not limited to customer care comments, add and drop history, usage accounts and related history, which are prepared by Supplier or any employee, officer, director, agent, consultant, subcontractor, or advisor of Supplier (collectively, the "Representatives"), which contain, otherwise reflect, or are generated from, Confidential Information.

d. Supplier: (i) acknowledges and agrees that the Confidential Information constitutes valuable tangible and/or intangible proprietary trade secrets and property of NOPEC, (ii) will

maintain the confidentiality of the Confidential Information (iii) will not sell, transfer or otherwise disclose the Confidential Information to any third party other than its affiliates or Representatives, of use, or permit the use by any third party other than its affiliates or Representatives of the Confidential Information in any manner inconsistent with this Agreement without the prior written consent of NOPEC; and (iv) will not utilize Confidential Information for prospecting or any marketing analyses, or any other purpose whatsoever, other than for the sole purposes set forth in this Agreement.

e. Supplier shall protect the Confidential Information by using the same degree of care, but no less than a reasonable degree of care, *as* Supplier uses to protect its own confidential information of a like nature, in order to prevent the unauthorized disclosure or use of such information. Supplier may disclose the Confidential Information only **to** its affiliates and Representatives whose access is necessary for Supplier to satisfy its obligations under this Agreement, and Supplier will cause such affiliates and Representatives to comply with the terms of this Agreement.

f. Supplier shall notify NOPEC if Supplier contemplates changing its third-party EDI vendor. There shall be no additional cost to NOPEC as a result of such change.

11.9 Supplier Confidential Information. For purposes of this Agreement, "Supplier Confidential Information" means and includes all information pertaining to Supplier that is not (a) Information which is at the time of the disclosure or becomes publicly available other than as a result of a violation of this Agreement; (b) information which is or becomes available on a nonconfidential basis from a source which is not known to NOPEC to be prohibited from disclosing such information pursuant to a legal, contractual or fiduciary obligation; or (c) information which NOPEC can demonstrate was legally in its possession prior to disclosure by Supplier. NOPEC acknowledges and agrees that the Supplier Confidential Information constitutes valuable tangible and/or intangible proprietary trade secrets. Confidential Information shall not include the following: (a) Information which is at the time of the disclosure or becomes publicly available other than as a result of a violation of this Agreement; (b) information which is or becomes available on a non-confidential basis from a source which is not known to the Receiving Party to be prohibited from disclosing such information pursuant to a legal, contractual or fiduciary obligation; or (c) Information which the Supplier can demonstrate was legally in its possession prior to disclosure by NOPEC. Supplier may disclose Confidential Information if necessary to comply with any applicable law, order, regulation, ruling, subpoena or order of a governmental authority or tribunal with competent jurisdiction may disclose Confidential Information if necessary to comply with any applicable law, order, regulation, ruling, subpoena or order of a governmental authority or tribunal with competent jurisdiction.

**11.10 Compliance with Laws.** The Supplier, NOPEC and its Member Communities shall comply with all existing and future Governmental Rules of all Governmental Authorities having jurisdiction over the activities covered by this Agreement.
**11.11 Consent.** Whenever performance of an obligation of any Party hereto requires the consent or approval of any Governmental Authority, such Party shall make Commercially Reasonable efforts to obtain such consent or approval. For any Governmental Authority approval other than a Member Community, if Supplier requests NOPEC's assistance in obtaining such consent or approval and NOPEC anticipates that it will incur costs in fulfilling Supplier's request, it shall give Supplier an estimate of such costs. Upon receiving the cost estimate, Supplier shall determine if it continues to request NOPEC's assistance, and if so, Supplier shall reimburse NOPEC for all costs, up to the estimated dollar amount, reasonably incurred by NOPEC in connection with such efforts. With respect to any Governmental Authority approval. of a Member Community, NOPEC shall provide assistance to Supplier at no cost to Supplier.

**11.12 Mutual Cooperation.** Without limitation of, and in addition to any other term or provision of this Agreement, the Parties agree to cooperate with each other reasonably and in good faith in order to accommodate each other's respective performance hereunder.

## ARTICLE 12 ROLES OF NOPEC AND MEMBER COMMUNITIES

**12.1 No Title.** Under this Agreement, NOPEC and its Member Communities (except as they or entities under their control are Participating Consumers) shall not receive, take title to electricity, or be liable for the supply or delivery of FRES on behalf of all Participating Consumers. It is solely the obligation of Supplier to arrange for delivery of FRES to Participating Consumers.

**12.2 NOPEC as Agent. NOPEC** shall be deemed as the agent of **its** Member Communities when carrying out any of the rights or responsibilities granted by the Agreement.

12.3 Exculpation of NOPEC and Member Communities. The Supplier understands and acknowledges that NOPEC is entering into this Agreement for the sole benefit of the Member Communities and the Participating Consumers and is not expending any funds hereunder. IN NO EVENT SHALL NOPEC OR ANY MEMBER COMMUNITY HAVE ANY FINANCIAL OBLIGATION TO THE SUPPLIER HEREUNDER, EXCEPT PURSUANT TO SECTION 9.3 OR OTHERWISE IN THEIR CAPACITY AS A PARTICIPATING CONSUMER.

## ARTICLE 13 PRICES AND SERVICES; BILLING

## 13.1 Pricing.

Exhibit B lists pricing for the products and services to be provided by Supplier.

#### 13.2 Price Schedule

## 13.3 Billing.

#### 13.4 Uncollectible Adder. 13.5

#### Price Cap.

**13.6 Limitation of Supplier's Liability.** Recognizing that Electricity provided hereunder in ultimately delivered to Participating Consumers by the Distribution Company, to the extent permitted by law, Supplier shall not be liable for any damage to a Participating Consumer's equipment or facilities, or any economic losses resulting directly or indirectly from any service interruption, power outage , voltage or amperage fluctuations, discontinuance of service, reversal of service, irregular service or similar problems beyond the Supplier's reasonable control.

**13.7 Participating Consumer Credit Checks.** The Supplier agrees to comply with the requirements of Ohio law regarding termination of service for residential customers. To the extent permitted by law, the Supplier may, subsequent to the Scheduled Initiation of Service Date, request access to a Participating Consumer's credit history and may request a security deposit from a Participating Consumer in accordance with Supplier's then current credit policies, a specimen of which is set forth in Exhibit [Fl.

## ARTICLE 14 SERVICE PROTECTIONS FOR RESIDENTIAL CUSTOMERS

The Supplier agrees that it shall comply with the requirements of Ohio law and the regulations promulgated from time to time by the PUCO concerning the protection and lights of residential customers. Supplier grants NOPEC the right to participate **in** resolution of an unresolved customer complaint or that raises precedental or policy issues, or a complaint filed at the PUCO, in addition to the rights provided to the PUCO and Office of Consumers' Counsel.

#### ARTICLE 15 REPORTS AND ACCESS TO INFORMATION

- 15.1 No Solicitation; Other Supplier Product Offerings. During the term of this Agreement, neither Supplier nor any affiliate shall make any product offering to any NOPEC customer, including the Participating Consumers, or mailings within any NOPEC Member Community, without NOPEC's prior written approval. Neither Supplier nor any affiliate shall solicit any NOPEC customer or any NOPEC Member Community listed on <u>Exhibit "A"</u> attached hereto for electricity or any other services without NOPEC's prior written approval. Neither Supplier nor any affiliate shall sell or transfer NOPEC's customer list, data or similar information to any third party.
- 15.2 NOPEC Customer Lists and Data. Upon request by NOPEC, Supplier shall provide to

NOPEC Supplier's details setting forth a list of all Participating Consumers in NOPEC Member Communities being served by Supplier under this Agreement, including such reasonable identifying and aggregate consumption information as NOPEC may request and all other data regarding all such customers, in such format as reasonably requested by NOPEC.

15.3 <u>Annual Report; Audited Financial Statements.</u> Unless and until Supplier has separate audited financial statements, Supplier shall provide NOPEC with the annual audited financial statements of FPL Group, Inc. within ten (10) business days of their release. Such statements may be furnished in either hard copy or electronic format. Supplier shall provide NOPEC with an annual report on or before February 15th of each year, that includes a reasonably detailed summary of operations in the NOPEC Member Communities for the past year, including number of Participating Consumers, electricity sales in each of the Member Communities, broken out for each community by zip code, month and customer class and such savings analysis that NOPEC shall reasonably request.

## ARTICLE 16 RESOLUTION OF DISPUTES; CHOICE OF LAW

**16.1 Governing** Law. This Agreement and the rights of the Parties shall be interpreted and determined in accordance with the laws of the State of Ohio.

16.2 Arbitration.

16.3 Venue.

## ARTICLE 17 INDEMNIFICATION

### 17.1 Terms.

a. Supplier shall indemnify, defend and hold harmless **NOPEC** and its Member Communities (collectively "Indemnified Parties" and singularly "Indemnified Party") and each Indemnified Party's officials, officers, employees, agents and representatives from and against any and all costs, claims, liabilities, damages, expenses (including reasonable attorney's fees), causes of action, suits or judgments, incurred by, or asserted against any Indemnified Party to the extent arising, directly or indirectly, from or in connection with (i) any breach or default by Supplier of its obligations, covenants, representations or warranties contained in this Agreement not cured in accordanCe with the applicable cure provisions of this Agreement and not proximately resulting from the actions of NOPEC or any Member Community or its or their employees or agents; or (ii) Supplier's actions or omissions, taken or made in connection with Supplier's performance of this Agreement that were not Commercially Reasonable, as defined in Section 1.14 hereof. b. In the event an Indemnified Party desires to make a claim or demand against the Supplier (the "Indemnifying Party") that does not involve a Third Party Claim, as defined in Section 17.1(c) below, the Indemnified Party shall promptly notify the Indemnifying Party of such claim (the "Claim Notice"), provided that the failure to promptly give such Claim Notice will not relieve the Indemnifying Party of its indemnification obligations under this section except to the extent, if any, that the. Indemnifying Party has actually been materially prejudiced thereby. If the Indemnifying Party does not notify the Indemnifying Party disputes such claim, the amount of such claim shall be conclusively deemed a liability of the Indemnifying Party hereunder. If the Indemnifying Party disputes such claim after the giving of any Claim Notice pursuant hereto, the amount of indemnification to which an Indemnified Party shall be entitled under this Article 17 shall be determined: (i) by the written agreement with the Indemnified Party; (ii) by arbitration pursuant to Section 16.2 hereof; or (iii) by any other means to which the Indemnified Party and the Indemnifying Party shall agree.

c. In the event that an Indemnified Party desires to make a claim or demand against the Indemnifying Party in connection with any third party litigation, arbitration, action suit, proceeding, claim or demand at any time instituted against or made upon it for which it may seek indemnification hereunder (a "Third-Party Claim"), the Indemnified Party shall promptly notify the Indemnifying Party of such Third-Party Claim, specifying the nature of such Third Party Claim and the amount or the estimated amount thereof to the extent then feasible (which estimate shall not be conclusive of the final amount of such claim and demand) (the "Third Party Claim Notice"); provided, that the failure to promptly give such Third Party Claim Notice will not relieve the Indemnifying Party of its indemnification obligations under this Section except to the extent, if any, that the Indemnifying Party has actually been materially prejudiced thereby. The Indemnifying Party shall have the right to conduct and control, through counsel of its choosing (which counsel shall be appropriate for the size and nature of the matter), the defense, compromise or settlement of any Third Party Claim against such Indemnified Party as to which indemnification has been sought by any Indemnified Party from any Indemnifying Party, and in any such case the Indemnified Party shall cooperate with the Indemnifying Party in connection therewith and shall furnish such records, information and testimony and attend such conferences, discovery proceedings, hearings, trials and appeals as may be reasonably requested by the Indemnifying Party in connection therewith; provided, that the Indemnified Party may participate, through counsel chosen by it and at its own expense, in the defense of such Third Party Claim, as to which the Indemnifying Party has so elected to conduct and control the defense thereof; and, provided, further, that the Indemnified Party shall not, without the prior written consent of the Indemnifying Party (which consent will not be unreasonably withheld), pay, compromise or settle any such Third Party Claim, except that no such consent shall be required if, following a written request from the Indemnified Party, the Indemnifying Party shall, within thirty (30) days after the making of such request, acknowledge and agree in writing that, if such Third Party Claim shall be adversely determined, the Indemnifying Party has an obligation to provide indemnification hereunder to such Indemnified Patty. Notwithstanding the foregoing, the Indemnified Party shall have the right to pay, settle or compromise any such Third Party

Claim without such consent of the Indemnifying Party; provided, that in such event the Indemnified Party shall waive any and all rights to indemnity hereunder.

17.2 Survival. Notwithstanding any provision contained herein, the provisions of this Article 17shall survive the termination of this Agreement for a period of two (2) years.

## ARTICLE 18 REPRESENTATIONS AND WARRANTIES

**18.1 Representations and Warranties by Supplier.** Supplier hereby represents and warrants to NOPEC as of the Effective Date of this Agreement as follows:

a. Supplier is duly organized, validly existing and in good standing under the laws of the State of Delaware and is duly qualified or licensed to do business in the State of Ohio;

b. Supplier has all authorizations from any Governmental Authority necessary for it to legally perform its obligations under this Agreement or will obtain such authorizations in a timely manner prior to when any performance by it requiring such authorization becomes due;

c. The execution, delivery and performance of this Agreement are within Supplier's powers, have been duly authorized by all necessary action and do not violate any of the terms or conditions in its governing documents or any contract to which it is a party or any Governmental Rule applicable to it;

d. This Agreement has been duly executed and delivered by Supplier and this Agreement (assuming due authorization, execution and delivery of all Parties hereto) constitutes legal, valid and binding obligations of Supplier enforceable against it in accordance with its terms, and Supplier has all rights such that it can and will perform its obligations to NOPEC in conformance with the teuus and conditions of this Agreement, subject to bankruptcy, insolvency, reorganization and other laws affecting creditor's rights generally and general principles of equity, regardless of whether such enforceability is considered in a proceeding in equity or at law;

e. no Bankruptcy is pending against it or to its knowledge threatened against it;

f. none of the documents or other written information furnished by or on behalf of Supplier to the NOPEC and/or the Member Communities pursuant to this Agreement contains any untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements contained herein or therein, in the light of the circumstances in which they were made, not misleading; and.

g. on the date on which Supplier causes the issuance of the Guaranty attached as Exhibit [D], such financial security will be the legal, valid and binding obligation of the issuer thereof, enforceable in accordance with its terms and covenants, subject to bankruptcy, insolvency, reorganization and other laws affecting creditor's rights generally and general principles of equity, regardless of whether such enforceability is considered in a proceeding in equity or at law.

**18.2 Representations and Warranties by NOPEC.** NOPEC hereby represents and warrants to Supplier as of the Effective Date of this Agreement as follows:

a. NOPEC is a regional council of government established under Chapter 167 of the Ohio Revised Code, and is duly authorized as the agent for the Member Communities, as a duly authorized governmental aggregator;

b. NOPEC has all authorizations from any Governmental Authority necessary for it to legally perform its obligations under this Agreement or will obtain such authorizations in a timely manner prior to when any performance by it requiring such authorization becomes due;

c. This Agreement has been duly executed and delivered by NOPEC, and this Agreement (assuming due authorization, execution and delivery of all Parties hereto) constitutes legal, valid and binding obligations of NOPEC, enforceable against it in accordance with its terms, subject to applicable bankruptcy, insolvency, fraudulent conveyance, reorganization and similar laws affecting creditors' rights and remedies generally, to general principles of equity, regardless of whether such enforceability is considered in a proceeding in equity or at law;.

d. The execution, delivery and performance of this Agreement are within NOPEC's powers, have been duly authorized by all necessary action. Neither the execution nor delivery by NOPEC of this Agreement nor the consummation by NOPEC of the transactions contemplated hereby or thereby does or will (a) result a breach or violation of the NOPEC Agreement or its bylaws, or any material provision of the Plan of Operation and Governance, or (b) violate, conflict with or result in the breach or termination of any agreement or instrument to which NOPEC is a party or by which it is bound or to which any of its properties are subject;

e. No Bankruptcy is pending or threatened against it and NOPEC has no actual knowledge of a pending or threatened Bankruptcy by a Member Community; and

f. none of the documents or other written information furnished by or on behalf of NOPEC or Member Communities to Supplier pursuant to this Agreement contains any untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements contained herein or therein, in the light of the circumstances in which they were made, not misleading.

g. NOPEC has exercised due diligence to review and has complied in all material respects with (a) the Plan of Operation and Governance; and (b) Section 4828.20 of the Ohio Revised Code governing the establishment of government aggregators.

h. NOPEC has received no official oral or written notice from a Member Community expressing a Member Community's intent to terminate, breach, or exit from the Aggregation Program.

## ARTICLE 19 INSURANCE AND OTHER FINANCIAL SURETIES AND GUARANTEES

**19.1 Insurance.** Supplier shall secure and maintain, at its own expense, throughout the term of this Agreement, comprehensive commercial general liability insurance of at least \$1,000,000 combined single limit and excess liability coverage of at least \$20,000,000. Supplier shall provide the NOPEC with evidence, reasonably satisfactory to the NOPEC, of its insurance hereunder, upon request. As Exhibit C hereto, Supplier shall provide a certificate of insurance within 30 days of the Pricing <u>I</u> etter Date and the anniversary date of the insurance policies. Supplier by itself or in conjunction with its affiliates shall have the right to self-insure any or all of the above coverages to the limits required.

#### 19.2 Additional Financial Sureties and Guarantees.

**19.3 Financial Information.** Upon reasonable request during the term of this Agreement and on a continuing basis, Supplier will provide NOPEC with Commercially Reasonable proof of its ability to meet its obligations to NOPEC pursuant to this Agreement. Supplier will provide NOPEC with a copy of FPL Group, Inc.'s annual report and other publicly available financial information as published.

## ARTICLE 20 TERMINATION WITHOUT LIABILITY

#### 20.1 Termination Events.

Upon the occurrence of any of the following events:

a. any material provision or condition of this Agreement shall be finally adjudged void, illegal or unenforceable by any court of competent jurisdiction; or

b. due to the adoption of, or change in, any applicable law, rule, regulation, protocol, or in the interpretation of any of the foregoing by a judicial or government authority with competent jurisdiction, it becomes unlawful for a Party to perform any material obligation under this Agreement; or

c. any regulatory agency or court having jurisdiction over this Agreement requires a material change to the terms of the Agreement that materially and adversely affects a Party; or

d. regulatory or court action that adversely and materially impacts a Party's ability to perform or otherwise provide the FRES; or

e. an event of Force Majeure has occurred and such event and resulting suspension of material performance by Supplier continues for a period of sixty (60) days after the commencement of such suspension and as a result of such Force Majeure, FRES is not being supplied to or received by Participating Consumers,: Then either Party may give notice to the other Party that such event has occurred (an "Initial Notice"). Promptly upon the giving of an Initial Notice by a Party, the Parties shall negotiate in good faith in an attempt to agree upon one or more amendments to this Agreement that would preserve the economic benefits the Parties contemplated would be received by them hereunder. If the Parties are unable to agree on such an amendment or amendments to the Agreement on or prior to the earlier of (i) sixty (60) calendar days after the date of the Initial Notice, (ii) the date the Roll-Off Termination Process (as described in Section 8.10) must begin in order for the Roll-Off Termination Process to be completed prior to the termination date set in accordance with this Agreement, or (iii) such other date as the Parties may agree to in writing, then the Party which is materially and adversely affected thereby shall have the immediate right to terminate this Agreement, without further cost, penalty or liability, by giving written notice to the other Party (a "Termination Notice"), subject to Section 8.9 hereof and the rights and obligations which survive termination as set forth in this Agreement.

## ARTICLE 21 MISCELLANEOUS

**21.1 Assignments.** At any time, with prior written notice to NOPEC, Supplier may unilaterally and unconditionally assign its rights, privileges and obligations under this Agreement to Wholesale Supplier or to an affiliated entity under common control or management with Supplier or any other entity, provided that the financial sureties and guarantees described in Article 19 remain in effect. Except for the foregoing, Supplier shall not assign its rights and privileges under this Agreement without the prior written approval of NOPEC. Such approval may be denied in the reasonable discretion of NOPEC if it determines that the proposed assignee does not have at least the same financial and technical ability as the assigning Supplier. Supplier's assignee shall agree in writing to be bound by the terms and conditions of this Agreement.

## 21.2 Renewable Energy Projects.

In the event that Supplier or its affiliates propose to construct a renewable energy project located in the State of Ohio and desire to permit a non-affiliated entity to participate as an equity partner in such project, NOPEC would be informed of such opportunity to participate on a non-operating basis under such terms and conditions as the parties may negotiate at such time.

**21.3 Notices.** Notices hereunder shall be deemed properly served (i) if by hand delivery, on the day and at the time on which delivered to the intended recipient at the address set forth in this Agreement; (ii) if by United States certified or registered mail, postage prepaid, return receipt requested, addressed to the intended recipient at its address set forth in this Agreement, on the day and at the time on which delivered to the intended recipient; or (iii) if by Federal Express or other reputable express mail service, on the next Business Day after delivery to such express mail service, addressed to the intended recipient at its address set forth in this Agreement. Any Party may change its address and contact person for the purposes of this Article 21 by giving notice thereof in the manner required herein. All notices, demands,

requests, consents or other communications required or permitted to be given or made under this Agreement shall be in writing and addressed to:

If to Supplier:

Gexa Energy Ohio, LLC Attn: Vice President Marketing 20 Greenway Plaza, Suite 600 Houston, Texas 77401

Gexa Eneigy Ohio, <u>TT</u>1;Attn: Legal Department 20 Greenway Plaza, Suite 600 Houston, Texas 77401

With a copy to:

NextRra Energy Power Marketing, LLC Attn: Legal Department 700 Universe Blvd. Mail Stop CTR/JB Juno Beach, FL 33408

NextRra Energy Power Marketing, LLC. Attn: Vice President, Origination 700 Universe Blvd. Juno Beach, FL 33408

If to NOPEC:

Northeast Ohio Public Energy Council Attn: Executive Director 31320 Solon Road Suite 20 Solon, OH 44139

With a copy to:

Glenn S. Krassen, Esq. Bricker & Eckler LLP 1375 East Ninth Street Suite 1 500 Cleveland, OFT 44114

**21.4 Changes in Emergency and Service Contact Persons.** In the event that the name or telephone number of any emergency or service contact for Supplier changes, Supplier shall give prompt notice to the NOPEC in the manner set forth in Section 21. In the event that the name or telephone number of any such contact person for the NOPEC changes, prompt notice shall be given to Supplier in the manner set forth in Section 21.

**21.5 Entire Agreement; Amendments.** This Agreement, together with all exhibits, and the Confidentiality Agreement constitute the entire agreement between the Parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings between the Parties relating to the subject matter hereof. This Agreement may only be amended or modified by a written instrument signed by all Parties hereto.

**21.6 Force Majeure.** If by reason of *Force Majeure* any Party is unable to carry out, either in whole or in part, its obligations herein contained, such Party shall not be deemed to be in default during the continuation of such inability, provided that: (i) the non-performing Party, within two (2) weeks after the occurrence of the *Force Majeure*, gives all other Parties hereto written notice describing the particulars of the occurrence; (ii) the suspension of performance be of no greater scope and of no longer duration than is required by the *Force Majeure*; (iii) no obligations of the Party which were to be performed prior to the occurrence; and (iv) the non-performing Party shall use Commercially Reasonable efforts to remedy with all reasonable dispatch the cause or causes preventing it from carrying out its obligations. Economic hardship of either Party shall not constitute an event of *Force Majeure*.

21.7 **Expenses.** Each Party hereto shall pay all expenses incurred by it in connection with its entering into this Agreement, including without limitation, all attorneys' fees and expenses.

21.8 No Joint **Venture.** The relationship between the Parties hereto is that of government aggregators' agent and seller of electric supply. Nothing herein contained shall be deemed to constitute a party, agent or legal representative of the other Part or to create a joint venture, agency or any relationship between the Parties other than that of government aggregators' agent and seller of electric supply.

**21.9 Joint Work Product.** This Agreement shall be considered the work product of both Parties hereto, and, therefore, no rule of strict construction shall be applied against either Party.

**21.10 Counterparts.** This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which shall constitute a single agreement.

**21.11 Headings and Captions.** The headings and captions appearing in this Agreement are intended for reference only, and are not to be considered in construing this Agreement.

**21.12 Survival of Obligations.** Termination of this Agreement for any reason shall not relieve the Company or Supplier of any obligation accrued or accruing prior to such termination. Notwithstanding any provision contained herein, the provisions of this Agreement shall survive the termination of this Agreement for a period of two (2) years with respect to (a) any claims which occurred or arose prior to such termination and (b) any losses occurring as a result of the termination, subject to Section 19 with respect to expiration or termination of the Guaranty.

**21.13 Audit.** Each Party has the right on at least three (3) Business Days prior written notice, at its sole expense and during normal working hours, to examine the records of the other Party to the extent reasonably necessary to verify the accuracy of any statement, charge or computation made pursuant to this Agreement. If any such examination reveals any inaccuracy in any statement, the necessary adjustments in such statement and the payments thereof will be made in accordance with this Agreement. Supplier will cooperate with NOPEC in connection with any SAS 70 audits which NOPEC is required or requested to perform under the requirements of the Auditor of the State of Ohio.

**21.14 MISO Agreement Modifications.** If the MISO Agreements are amended or modified so that any schedule or section references herein to such agreements is changed, such schedule or section references herein shall be deemed to automatically (and without any further action by the Parties) refer to the new or successive schedule or section in the MISO Agreements which replaces that originally referred to in this Agreement. If the applicable provisions of the MISO Agreements referenced herein, or any other MISO rules relating to the implementation of this Agreement, are changed materially from those in effect on the Effective Date, both Parties shall cooperate to make conforming changes to this Agreement to fulfill the purposes of this Agreement; provided that no such changes shall alter the economic benefits of this Agreement between the Parties.

**21.15 Delay and Waiver.** Except as otherwise provided **in** this Agreement, no delay or omission to exercise any right, power or remedy accruing to the respective Parties hereto upon any breach or default of any other Party under this Agreement shall it be construed to be a waiver of any such similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default thereafter occurring. Any waiver, permit, consent or approval of any kind or character of any breach or default under this Agreement, or any waiver of any provision or condition of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing.

**21.16 Regulatory Approvals.** The Parties agree to cooperate, to the fullest extent necessary, to obtain all required State, Federal or other regulatory approvals for the Agreement, if any. Supplier further agrees to file for any regulatory approval as soon as possible after execution, if any.

**IN WITNESS WHEREOF,** the Parties hereto have executed this Agreement as of April 3, 2009 (the "Effective Date").

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By C C		Ś
Title: PRESIDENT Debod: APPELL 5, Lorge		
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MORTERAT ORIG TOULSE READING COUNCIL

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## EXHIBIT A MEMBER COMMUNITIES

## NOPEC ElectrIcit Member CQrnmunities

ASHTABULA COUNTY Ashtabula Conneaut Geneva Geneva-on the Lake Jefferson North Kingsville Orwell Village Roaming Shores Rock Creek Ashtabula County Twps.\* Andover Township Ashtabula Township Austinburg Township Chem; Valley Township Colebrook Township Denmark Township Dorset Township Geneva Township Harpersjield Township Hansgrove Township Jefferson Township Kingsville Township Lenox Township Monroe Township Morgan Township New Lyme Township Orwell Township Pierpont Township Plymouth Township Richmond Township Rome Township Saybrook Township Sheffield Township Trumhull Township Wayne Township Williamsfield Township Windsor Township

cu<sup>y</sup>AHOGA COUNTY Beachwood Bedford Bedford Heights B e n tleyville Berea Bratenahl Brecksville Broadview Heights Brook Park Brooklyn Brooklyn Heights Chagrin Falls Cuvahoga Heights East Cleveland Fairview Park Garfield Heights Glenwillow Highland Heights Hunting Valley Independence Lakewood Linndale Lyndhurst Maple Heights Mayfield Village Middleburg Heights Moreland Hills Newburgh Heights North Olmsted North Randall North Royalton Oakwood Olmsted Township Olmsted Falls Orange Parma 1-Teights Pepper Pike Rocky River Shaker Heights. Solon South. Euclid Strongsville University Heights Valley View Walton Hills Warrensville Heights

GEAUGA COUNTY Auburn Township Bainbridge Township Burton Chardon Chardon Township Chester Township Claridon Township Hambden Township Huntsburg Township Middlefield (Village) Middlefield Township Montville Township Munson Township Newbury Township Parkman Township Russell Township South Russell Thompson Township

#### LAKE COUNTY

Eastlake Fairport Harbor Grand River Kirtland Kirtland Hills Lakeline Madison Mentor Mentor-on-the-Lake Timberlake Waite Hill Wickliffe Willoughby Willoughby Hills Willowick Lake CountyTownships\* Concord Township Leroy Township Madison Township Painesville Township Perry Township

#### LORAIN COUNTY

Amherst Township Avon Avon Lake Elyria Lorain South Amherst Sheffield Lake Sheffield Village North Ridgeville

#### MEDINA COUNTY

Brunswick

#### PORTAGE

**COUNTY** I Timm Village Kent Portage County Twps.\* Atwater Township Brimfield Township Charlestown Towriship Deefield Township Edinburg Township Franklin Township Freedom Township Hiram Township Mantua Township Nelson Township Palymra Township Paris Township Randolph Township Ravenna Township Rootstown Township Shalersville Township Suffield Township Windham Township

SUMMIT -COUNTY Clinton Lakemore Macedonia Northfield Peninsula Reminderville Twinsburg

TRUMBULL COUNTY Warren

Bazetta Township Bloomfield Township Braceville Township Bristol Township Brookfield Township Champion Township Farmington Township Fowler Township Greene Township Gustavus Township Hartford Township Howland Township Hubbard Township Johnson Township Kinsman Township Liberty Township Mecca Township Mesopotamia Township Newton Township Southington Township Vernon Township Vienna Township Warren Township Weatherleld Township

\*County joined NOPEC on behalf of its unincorporated areas (i.e., the townships listed in italics, which are not counted as individual members)

# REQUEST FOR PROPOSAL FOR PROFESSIONAL SERVICES FOR CERTIFIED RETAIL ELECTRIC SUPPLY

May 14, 2009

## I. <u>INTRODUCTION</u>

The Northwest Ohio Aggregation Coalition ("NOAC") invites Certified Retail Electric Suppliers to submit proposals to supply NOAC's residential and small commercial governmental aggregation programs with firm generation for various customers within the Toledo Edison service territory.

NOAC is comprised of the cities of Maumee, Northwood, Perrysburg, Oregon, Sylvania, Toledo, the villages of Holland, the unincorporated townships of Lucas County as represented by the Lucas County Board of Commissioners and Lake and Perrysburg Townships. The NOAC communities are located in Lucas and Wood counties and contain a population of approximately 470,000 persons. NOAC has approximately 181,000 residential and up to 23,000 commercial consumers who are eligible for the opt-out aggregation. Possible participants' consumption and demand information is located in appendix A in this proposal.

NOAC is a coalition of communities who joined forces to find better utility rates. Accordingly, the actual power supply contracts for generation will be entered into with each individual community.

This RFP provides the essential elements that NOAC requires in selecting a CRES supplier. While a bidder has the discretion to formulate its proposal in any manner it chooses, care should be taken to include the requirements contained in this RFP. Bidders are advised that a guaranteed source of electricity is ultimately as important as the price term. Furthermore, bidders need to be aware that they will be responsible for assuming all credit risks associated with service to the customers.

## II. SUPPLY REQUEST & PRICING REQUIREMENTS

NOAC is seeking full requirements power supplies for shoppable residential and nonmercantile commercial accounts with peak demands less than 200 kilowatts (kW). These accounts are receiving distribution service under Toledo Edison rates: Residential Service (RS), General Service - Secondary (Rate "GS"), and General Service – Primary (Rate "GP").

The prices offered should either be a fixed price per kWh or a percentage below the customers' Rider GEN avoided cost. The pricing offered should including all energy,

capacity, resource adequacy requirements (e.g. capacity associated with adequacy requirements), transmission service, and transmission ancillary services, distribution line losses, and the cost of renewable as part of the price.

**Residential Consumers.** The 171,000 potential residential consumers represent approximately 1,291 gigawatt-hours (GWH) of annual consumption. An additional 12,200 residential consumers consuming 135 GWH annually are grandfathered on discounted electric heating rates. While it is unlikely the price offered through the aggregation will be insufficient to overcome the electric heating generation discount, the NOAC communities reserve the right to opt in various electric heating consumers. Likewise, each consumer shall have the right to opt in

<u>**Commercial Consumers</u></u>. Virtually all 23,000 prospective commercial consumers consuming approximately 1,059 GHW annually are served at secondary voltage levels. However, approximately 60 customers consuming approximately 17 GHW annually are served at primary voltage. Provider should include a confirmation if the primary customers will be served at different price due to the distribution line loss differential.</u>** 

Responses may include pricing to serve Residential consumers, Commercial consumers, or both.

## II. <u>SUBMISSION</u>

 Responses to this RFP must be received by <u>4:00 p.m. on Tuesday May 26,</u> <u>2009</u> at the address indicated below. One original and two copies of the response must be delivered to NOAC's consultant: Mark Frye, Palmer Energy Co., Inc., 241 N. Superior, Toledo, OH 43604; e-mail: <u>mfrye@palmerenergy.com</u>; telephone (419) 539-9180 \*201; facsimile <u>419.539-9185</u>.

It is the responsibility of the responder to ensure that its proposal is delivered to the proper location by the designated time.

This RFP does not represent a commitment or offer to enter into a contract with a bidder, nor to pay any cost incurred in the preparation of a proposal responsive to this request.

2. Proposals received by the due date will be considered as submitted. There will be no formal proposal opening. All firms submitting proposals will be informed of NOAC's decision concerning the acceptance or rejection of its proposal. Non-responsive proposals may not be considered.

3. All proposals submitted shall be treated confidentially throughout the review and selection process. However, a summary of the proposals shall be provided by Palmer Energy to the NOAC communities. This summary is a public record under Ohio law and may be accessible to the public through written requests for public information.

## III. <u>SCOPE</u>

In addition to reliable, firm, full requirements power supplies, the responder should factor in the following administrative tasks into their pricing offer:

- 1. Initial customer list data cleansing and ongoing management of the customer list.
- 2. Opt-out administration, including printing and mailing costs for the opt-out notifications, your environmental disclosure requirements, and a terms and conditions sheet including frequently asked questions.
- 3. A customer call center with a toll-free telephone number, staffed by knowledgeable service representatives specifically trained on NOAC's program.
- 4. Electronic data transmission uploads and relevant communications with Toledo Edison.
- 5. Quarterly data reports to each community for each community's Market Monitoring reports to the PUCO.
- 6. Quarterly savings summary and usage data reporting.

## IV. <u>COMPANY OVERVIEW</u>

- 1. Describe your company's organizational structure including parent, affiliate and subsidiary companies.
- 2. Provide the PUCO Case No. for Certified Retail Electric Supplier (CRES) status.
- 3. Indicate if proposer's company, parent, affiliate, or subsidiary own any physical generation assets that will be used in serving the aggregation load. If so, estimate the percentage of the groups' total needs that will be supplied by this generation.

- 4. Indicate the percentage of supply NOAC consumers will purchase from other generators or independent system operator(s), and whether the necessary transmission agreements/arrangements are in place to deliver the power to the various points required to serve the NOAC communities' load.
- 5. Indicate how many years responder has sold power supplies to other parties, and the states where those supplies are currently sold. Also, provide the approximate annual GHW volume of 2008 sales.
- 6. Provide the number of electric accounts currently supplied, and the percentage mix between residential, commercial, and industrial. Also indicate if any of these accounts are governmental aggregations.
- 7. Describe any financial assurances that would be provided to back the obligations to supply retail electric generation as part of the RFP response.
- 8. Describe what customer services currently offered, or are willing to offer to meet the needs of the aggregation pool.
- 9. Describe any and all investigations, indictments, pending litigation, civil penalties, judgments, consent decrees, sanctions or other law/rule/regulation/ ordinance violations in which you are presently involved.

## VI <u>TERMS AND SPECIFICATIONS</u>

- 1. The chosen supplier will be responsible for fulfilling all requirements, obligations and assuming all costs associated with delivering power.
- 2. All suppliers must provide firm, full requirements service on an uninterruptible basis. The price must include energy, capacity, resource adequacy requirements, transmission service, transmission ancillary services, distribution losses, imbalances, load factor adjustments, congestion charges, your costs and taxes, if applicable.
- 3. All pricing must include an administrative fee to be collected on behalf of the contracting community. The total fee shall be \$0.0001 per kWh with payment of \$0.00007 per kWh to Palmer Energy for its consulting services on behalf of the NOAC communities. The remaining portion of the fee shall be held by the supplier in an escrow account until such time the communities direct otherwise.

The escrowed fees shall be used to pay for other NOAC expenses related to various energy matters, reimbursement of NOAC community costs related to the aggregation, or returned to consumers through an incremental discount as directed by the communities.

- 4. The term of this agreement is expected to begin power flow by August 1<sup>st</sup> 2009 and for power flow May 31, 2011. This start date should permit time for various community approvals, contract execution, completion of the opt-out, and data submission. However NOAC is open to a later start date, if the response provides sufficient reasoning why a September or October start date would permit a more beneficial pricing structure.
- 5. All responses should include an explanation of proposed, average savings for each rate class against FirstEnergy's Rider GEN pricing.
- 6. Please specify what penalties or exit fees exist, if any, should an end-use cancel its contract prior to its natural expiration. Additionally, please list terms and conditions specific to your company that are not addressed in this RFP.
- 7. All responses must demonstrate compliance with all legal and regulatory requirements, state all applicable certifications and licenses it possesses, and submit a current environmental disclosure statement.
- 8. All responses must include a copy of the power supply agreement that is being proposed to serve the various communities. Terms detrimental to NOAC will not be accepted, and if they cannot be negotiated out, may be cause to reject the RFP.
- 9. Responses must permit periodic refresh mailings. The period shall be between 3 and 6 months.
- 10. Response must also permit consultant, on behalf of the communities, to opt customers into the aggregation at the same pricing within the contract term.
- 11. Bidders should indicate whether or not their company is a Disadvantaged Business Enterprise and be prepared to provide the composition makeup of its workforce.

## VII. <u>SELECTION PROCESS</u>

NOAC values pricing above all other criteria provided the generation supply is obtained from a reliable source. NOAC intends on accepting the proposal that offers

the best value for the customer, provides sufficient documentation as to the stability of the company, and that meets the best interests of the communities.

It is likely that the selection process will occur quickly, and soon after the close of the bid date. In the event that more information is needed from a bidder it may be requested by email, telephone or fax, so please provide this access information. In order to expedite matters, bidders are encouraged to include all information they deem relevant in the initial submission.

## VIII. MISCELLANEOUS

The data that is provided with this RFP has been derived by data provided as-is from FirstEnergy.

FY 2007-08				
Jul-07				
Aug-07	Includes an 8-week media campaign and a 6-week media			
	campaign, marketing firm expense, outreach to phase II, III IV			
	accounts including development of communication tools and			
	events. This does not include notification costs (printing and			
	mailing of notifications)			
Sep-07				
Oct-07				
Nov-07				
Dec-07				
Jan-08				
Feb-08	Phase I service begins (13 members)			
Mar-08				
Apr-08	Dhana II ann iac haoine ( 004 anns antal)			
May-08	Phase II service begins (291 commercial)	* 007 000		
Jun-08		\$ 687,900		
			•	
FY 2008-09	Includes marketing firm synames. A weak media compaign		\$	687,900
Jui-06	includes marketing in expense, o-week media campaign,			
	outreach to Phase III and TV accounts including			
	notification costs			
Aug.08	Phase III service begins (2469 medium)			
Sep-08				
Oct-08				
Nov-08	Phase IV service begins (186.327 all others)			
Dec-08				
Jan-09				
Feb-09				
Mar-09				
Apr-09				
May-09				
Jun-09		\$ 468,000		
FY 2009-10			\$	468,000
Jul-09	Includes marketing firm expense, including communication			
	tools and events to keep customers informed about program.			
	This does not include ongoing notification costs.			
Aug-09				
Sep-09				
Oct-09				
Nov-09				
Dec-09				
Jan-10				
Feb-10				
Mar-10				
Apr-10				
May-10		¢455.000		
Jun-10		 \$455,000		455 000
		3 year total	э \$	455,000

#### SJVPA CCA Communications Campaign

# San Joaquin Valley Power Authority Marketing Overview

The information below is about marketing efforts prior to SJVPA's Community Choice program being implemented. At this time, SJVPA has not started its CCA program. The program is based on a 10 percent opt-out rate.

Background

- Contracted with marketing firm
- Developed strategic plan that included:
  - Public opinion survey and stakeholder interviews
  - Goals of educating, gaining support and branding
  - Audience-targeted communications tools
  - Tasks and budget
- Committed to KRCD values in communications
- Updated as program developed

Marketing Objectives

- Brand Community Choice as a reliable, competent and trustworthy partnership for electrical generation.
- Educate customers about the benefits of Community Choice to provide for maximum participation.
- Effectively notify all customers about their ability to opt-out of Community Choice.
- Maintain customer participation during opt-out periods through ongoing communications about the benefits received from Community Choice.

Aggregators & Influencers

- Audience elected bodies, city/county staff, business leaders
- Tools used
  - One-on-one meetings
  - Briefing packets
  - Speaker's Bureau presentations
  - Interviews
- Challenges time consuming for us, information overload for them
- Successes developed relationships, trust

## Key Accounts

- Audience plant managers, energy managers, school administrators
- Tools used
  - One-on-one meetings
  - Workshop
  - Briefing packets
  - E-newsletter
- Challenges scheduling, keeping in touch
- Successes gathered information on energy issues and drivers for not opting out, letters of support

Medium Commercial

• Audience - business owners

- Tools used
  - Tabloid (direct mail)
  - Grassroots outreach
  - Speaker's Bureau presentation/briefing packet
  - Media campaign
- Challenges larger number prohibits personal outreach
- Successes service clubs have provided good platform for communicating

Residential, Small Business, Ag

- Audience all remaining accounts
- Tools used
  - Media Campaign (view TV and radio spots at http://www.communitychoice.info/outreach/)
  - Grassroots outreach
  - Speaker's Bureau presentation/briefing packet
  - Tabloid (insert into newspapers)
- Challenges creating awareness and understanding of program, adding settlement disclaimer to media campaign materials
- Successes started early on branding, foundational tools in place
- Foundational Tools
  - Logo & Tagline
    - Building name recognition of program
  - Website www.communitychoice.info
    - Resource for in-depth information
    - Primary location for information on SJVPA
    - E-newsletter view at http://www.krcd.org/news/power\_connections/
  - Media Relations
  - Messaging
    - Consistent
    - Adheres to KRCD values

Challenges and Solutions

- Information overload
  - Worked on simplifying information into concise fact sheets for "first contact" and have in-depth information available
  - Revamped newsletter from attachment to e-mail content
- A budget that didn't allow for info-commercials
  - Supplemented media campaign with grassroots campaign utilizing existing networks
- The program was developing faster than we could write about it
  - Tried to stay vigilant in reviewing website and printed pieces to keep them current. Timeline pieces became a challenge to maintain.

Going Forward

- Grassroots campaign implementation
- Revamp marketing tools to reflect settlement agreement
- Develop notification process and content
- PG&E Tactics

- Commercials and website about positive efforts in Valley. (www.valleypge.com)
- Opt-out brochure and opt-out webpage at http://www.pge.com/myhome/customerservice/energychoice/communitychoiceag gregation/index.shtml (which has been subsequently removed)
- Lobbying of elected officials and business organizations

# **SECOND YEAR REPORT** 1999

**CAPE LIGHT COMPACT GOVERNING BOARD** 

# **Officers for 1999/2000**:

Robert Mahoney, Chairman

Charlotte Striebel, Vice Chairman

Tom Bernardo, Treasurer

Robert O'Leary, Secretary

## Representatives

Vicky Bebout (Eastham) Tom Bernardo (Chatham)

Robert Bigelow (Falmouth, alternate) Carol Borer (Dukes County) Timothy Carroll (Chilmark) Haydon Coggeshall (Bourne) Lawrence Cole (Harwich, alternate) John Cunningham (Brewster) Winn Davis (Provincetown) Joe Dellagalla (Mashpee) Peter Fohlin (Tisbury) Peter Hall (Wellfleet) Michael Hebert (Aquinnah) Jack Howard (Yarmouth, alternate) Jack Jillson (Sandwich)

Kitt Johnson (Edgartown) Dean Keuch (Brewster, alternate) Audrey Loughnane (Barnstable) Robert Mahoney, Dennis Robert O'Leary, Barnstable County Matt Patrick (Falmouth) Charlotte Striebel (Yarmouth) Kenneth Rusczyk (Oak Bluffs) Suzanne Thomas (Truro) Kate Warner (West Tisbury) Barry Worth (Harwich)

**Compact Administrator** 

Margaret Downey

# **BACKGROUND ON THE CAPE LIGHT COMPACT** Working Together To Power the Cape And Vineyard

The Cape Light Compact is a cooperative effort of 20 Cape and Island towns and Barnstable and Duke counties. The Compact was formed in 1997 following two years of study and town meeting and town council votes. Its purpose is to represent consumer interests in emerging competitive markets for electricity. It seeks to provide an option for all consumers to gain the best rates for the supply and distribution of electricity and to advance consumer protection for the residents and businesses of Cape Cod and the Vineyard. It brings together the buying power of more than 185,000 customers. Participation is voluntary for the towns and voluntary for each individual consumer. Any individual has the opportunity to decline service provided through the Compact and choose any electric supplier they wish.

The Compact provides: 1) an option to join together for purchase of power supply at reduced rates; 2) an option for recovery of funds collected from Cape consumers by Commonwealth Electric each month for energy efficiency, and application of those funds in locally-approved energy efficiency and conservation programs; 3) an opportunity for professional representation at the state level and in negotiations with Commonwealth Electric.

This comprehensive approach, undertaken with legal and technical support, is vitally important as the electric industry continues in its transition to a competitive market.

# Member towns:

BarnstableFalmouthBourneHarwichBrewsterMashpeeChathamProvincetownDennisSandwichEastham

Truro Wellfleet Yarmouth and Barnstable County

Aquinnah Chilmark Edgartown Oak Bluffs Tisbury West Tisbury and Dukes County

# **COMMUNITY CHOICE POWER SUPPLY PROGRAM**

# A new and important option for consumers

The Electric Utility Restructuring Act of 1997 created competition for electric power supply. Existing utilities will continue to read meters, send out bills and maintain distribution and transmission wires, although some of these functions may be subject to competition in the future. The competitive market for power supply officially opened on March 1, 1998 and market development is slowly evolving. A few large consumers in the region are receiving competitive power supply, but all other customers are on Commonwealth Electric's "Standard Offer" service rate, or "Default Service" (those who moved into the area, or began service after March 1, 1998). "Standard Offer" prices are set to increase each year, and ultimately expire. At that point consumers who have not chosen a competitive supplier will be placed on "Default Service" at market prices.

Current "Standard Offer" Price Increases for Power Supply (cents per kilowatt hour)

1998	1999	2000	2001	2002	2003	2004	2005	March 2005
2.8	3.5	3.8	3.8	4.2	4.7	5.1	5.1	expiration

The Compact's "*Community Choice*" Power Supply Program provides an important option for consumers. It gives consumers the chance to combine their buying power and prepare for changes in the market. The Compact is required by law to offer prices for all customers lower than Commonwealth Electric's Standard Offer Price. This benefits large and small consumers as well as the regional economy. It also opens the possibility of increased benefits from energy efficiency program funds. (See Energy Efficiency Plan description). And it presents related opportunities for competitive natural gas supply.

The Compact is working with a team of industry professionals to implement the *Community Choice* program. In March 2000, the Compact reached a landmark agreement with Select Energy, Inc. on a power supply contract to serve all customers on the Cape and Martha's Vineyard. The contract will be taken to each member town and to state regulators for approval. In towns that accept the contract, consumers will have this option available. However, any individual consumer who does not want to participate can opt-out and choose any other supplier they wish. Additionally, during a 180 day period following initiation of service they can choose Commonwealth Electric's "Standard Offer"energy. All customers will be notified in advance and given an opportunity to choose their supplier.

# **CAPE AND ISLAND ENERGY EFFICIENCY PLAN** *An unique opportunity for Cape and Island consumers*

The Electric Utility Restructuring Act of 1997 included provisions to allow communities establishing power supply programs to recover funds being paid to their local distribution company (Commonwealth Electric) for energy efficiency programs, and to utilize those funds in locally-designed programs approved by the towns. Consistent with its purposes, the Cape Light Compact has developed an Energy Efficiency Plan that has been submitted to boards of selectmen, town council and town meetings for approval. Under the requirements of the law, the Plan will also be submitted to state regulators for approval.

The Plan seeks to recover \$8.7 million over a two year period (equivalent to what Cape and Vineyard consumers will be paying to Commonwealth Electric). Funds will be earmarked for use in the towns with values consistent with what consumers in each town are paying. This is aimed at maximizing services and opportunities to boost consumer participation and awareness.

The Plan addresses all types of customers. It includes generous rebates for lighting and energy efficient appliances and heating systems; free reviews of electric energy use; subsidies and no-interest loans for new construction and renovation; and a local education and marketing program. In total, the Compact program places more funds in programs than the existing Commonwealth Electric program, due to reduction of program costs.

Day-to-day management of the program will be contracted to a team of industry professionals hired through a competitive process. The management company will coordinate vendors who will deliver the services. The Compact will work cooperatively with the towns to monitor the progress of the programs.

The Plan includes some of the best programs from the region, and will look to enhance those programs based on local and regional feedback. Federal funds have been received to study some of the most effective programs in communities across the country for incorporation in the Cape and Island plan. The program holds the potential to provide substantial economic and energy savings for individual consumers and to enhance job creation for the region. The Compact believes that the Energy Efficiency Plan presents an opportunity to set new benchmarks for consumer service.

# CAPE LIGHT COMPACT ACHIEVEMENTS 1999 A comprehensive approach to protect consumer interests

# **Program Achievements and Savings**:

Last year, the First Annual Report focused on formation and development of the Compact programs and participation in state decisions affecting consumers. The Compact developed agreements, plans, the first analysis undertaken for each town's electrical needs, formed a presence in the competitive market, and helped produce savings (\$25 million) from participation in state decision-making. In 1999, the Compact used the solid groundwork that had been laid to make further progress to provide options and protection for the region's consumers:

*Developed and Released Landmark Request for Proposals:* Prepared and released to competitive energy suppliers a Request for Proposals to solicit bids for electric power supply, natural gas supply and management of the energy efficiency program. This RFP resulted in several of the achievements below.

*Negotiated Natural Gas Supply Contract*: The Compact negotiated on behalf of the Cape Cod Collaborative (a purchasing group for Cape schools) a natural gas supply contract estimated to save an estimated \$165,000 on an annual basis.

Negotiated Power Supply Contract: The Compact negotiated a power supply contract to provide all consumers on the Cape and Martha's Vineyard an option for competitive power supply at prices below Commonwealth Electric's Standard Offer Price. Consumers would be phased-in as the Standard Offer Price increases. Under a proposed schedule, service would begin December 1, 2000 for large commercial customers, March 1, 2001 for municipal customers, September 1, 2001 for small commercial customers, and September 2002 for residential customers. However, under a process outlined in the contract this schedule may be deferred if high wholesale market prices continue. Projected savings under the initial schedule total \$7.8 million, with approximately \$4 million going to residential customers, \$3.2 million to commercial customers and \$600,000 for municipal accounts. For individual residential consumers these savings are modest; approximately \$5 for the first year, \$10 for the second year, and \$20 for the third year. Development of the power supply contract allows the opportunity to submit the Energy Efficiency Plan to state regulators for approval to recover and utilize \$8.7 million locally.

*Received Bids from Major Companies For Energy Efficiency Management:* The Compact received and qualified bids from three management companies, and held those proposals while negotiating the power supply agreement. *Municipal Electric Supply Savings*: Conducted analysis and recommended to the towns a short-term contract through the Massachusetts Health and Educational Facilities Association for municipal power supply. Resulting savings estimated in excess of \$300,000.

*Streetlight Purchase Program*: Following the examples of Yarmouth and Falmouth which have purchased their streetlights and gained substantial savings, the Compact developed a streetlight purchase program. The Compact undertook examination of potential savings from purchase of streetlights for all towns. Initial estimates of savings are in excess of \$400,000 annually.

*Improvement of Reliability:* Reliability of power supply has long been a concern of the Cape and Vineyard communities. Following a major power outage and a series of smaller outages, the Compact Governing Board communicated concerns over the capability and reliability of the electric transmission system to state regulators. State regulators included provisions in approval of the Boston Edison/ Commonwealth Energy merger for penalties related to service reliability. The companies have since increased efforts to improve reliability. The Compact will work with the companies and communities and monitor this important issue.

## **Expenditures/Savings:**

During FY 1999 the Cape Light Compact expended \$297,261.45 on the activities noted above. In total, the Compact has expended and saved the following:

Expenditures:*	FY 1998:	\$146,418.19			
-	FY 1999:	297,261.45			
	FY 2000:	259,500.00			
Savings:	DTE Interv	ention Canal Plan Sale	\$25.000.000		
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Natural Gas Supply for Cape Schools Municipal Power Supply Contract (HEFA)				
	400,000				
	Projected Po	7,800,000			
	Energy Efficiency Program (yet to be accomplished)				

Total expenditures (\$703,179.64) are equivalent to \$3.80 per metered customer. Total savings under agreement (in excess of \$33,315,000) are equivalent to \$180.08 per metered customer, with additional annual savings for streetlights, energy efficiency and other services anticipated but not included in this total. \*Barnstable County has also competed for and received federal grants utilized for projects related to electric industry restructuring. These funds were not used to offset Compact program costs.

# The Year Ahead

Due to the work of Barnstable and Dukes counties and the participating towns, the Cape Light Compact has received national recognition and become a model option for consumers in other municipalities. The year 2000 will be focused on gaining local and state regulatory approvals of contracts and plans. Much attention will also be given to monitoring the energy markets, and development of alternatives in the event that high prices cause delay in the start-up of service under the power supply agreement. In addition, determinations will be made regarding the Energy Efficiency Program, the Streetlight Purchase Program will move to culmination, and continuing efforts will be made to assure improvement in reliability and quality of service.

# **For More Information**

If you would like more information on the Compact, or have any specific questions or comments, please contact your town representative or the Compact Administrator at (508) 375-6636.

# **CAPE LIGHT COMPACT PURPOSES**

(as listed in the Intergovernmental Agreement approved by member towns)

1) To provide the basis for aggregation of all consumers on a non-discriminatory basis;

- 2) To acquire the best market rate for electricity supply and transparent pricing;
- To provide equal sharing of economic savings based on current electric rates and/or cost-of-service rate-making approved by the Department of Telecommunications and Energy;
- 4) To provide and enhance consumer protection and options for service under contract provision and to allow those consumers who choose not to participate to opt-out;
- 5) To improve quality and reliability of service;
- 6) To encourage environmental protection through contract provisions;
- 7) To utilize and encourage renewable energy development to the extent practicable through contract provisions, demonstration projects and state mandated system benefit charges for renewable energy;
- 8) To utilize and encourage demand-side management and other forms of energy efficiency through contract provisions and state mandated system benefit charges for energy efficiency;
- 9) To advance specific community goals that may be selected from time to time, such as placing utility wires underground;
- 10) To provide full public accountability to consumers; and
- 11) To utilize municipal and other powers and authorities that constitute basic consumer protection to achieve these goals.






# TABLE OF CONTENTS

SECTION ONE – BACKGROUND	2
Introduction Goals	2
SECTION TWO – STRATEGY	5
Introduction Assessment Findings Message Concepts Audiences Tools and Media	5 
SECTION THREE – IMPLEMENTATION	
Introduction Tasks: Year 4 (FY 2005-2006) Tasks: Year 5 (FY 2006-2007)	

# Appendices

Appendix A: Overview of Public Outreach Activities for Years 1-3 Appendix B: Recommended Timeline and Budget for Years 4-5

# **SECTION ONE – BACKGROUND**

#### INTRODUCTION

In May 2003, a 3-year strategic plan outlining public outreach and community relations activities for the Kings River Conservation District (KRCD) was completed and presented to the Board of Directors for approval. The Board approved the plan, deciding to move forward with its interest in evaluating the possibility of developing and ultimately forming an electrical utility service for the District and the 14 cities it surrounds. Given the challenging nature of pursuing the development of an electric utility service, KRCD retained the services of Panagraph, Inc. to assess public opinion and support for such a project and to develop a strategic plan for effective public outreach.

Panagraph prepared the plan to provide a framework for public outreach activities over a period of three years from July 2002 to June 2005. Each year, Panagraph and the KRCD staff reviewed the plan and developed an annual scope of work to carry out individual tasks. Final approval of each year's scope of work was subject to approval by the Board of Directors.

The plan was based on the findings from a detailed assessment process. After reviewing data from a public opinion survey and stakeholder interviews, the following public outreach and community relations goals were identified in a workshop with KRCD staff: These goals became the "drivers" of the public outreach program development and implementation for the 3-year period.

#### 2002-2005 Goals

- 1. Brand KRCD as a local public entity that is reliable, competent and trustworthy.
- 2. Increase public awareness and understanding of KRCD, its responsibilities and functions.
- 3. Define the conditions of the energy crisis in the central San Joaquin Valley.
- 4. Educate potential customers about the benefits of public power.
- 5. Gain support of stakeholders for a community-owned utility.

During the 3-year period, audience-targeted communication tools and public outreach activities were developed and implemented to assist KRCD in meeting its goals. From creative branding and the

development of a communication tool kit to the creation of television and radio spots, the public outreach activities were selected to help KRCD meet its overall marketing goals.

Over the last year and a half, KRCD has clarified its direction in how it plans to improve the reliability of electrical service for the people within its service area. Rather than providing electrical service directly to customers as a public power authority, KRCD is pursuing Community Choice Aggregation with the cities and counties within its service area. Under Assembly Bill 117, Community Choice permits communities to combine the electrical loads of their constituencies for the purchase and sale of electrical energy. The existing investor-owned utility would continue to deliver the electricity, but Community Choice would allow communities more choice and control over energy sources and cost of generation. The rules and protocols for Community Choice are in the final stages of being determined by the California Public Utilities Commission (CPUC). As of June 2005, 11 cities and one county have signed the Memorandum of Understanding with KRCD, providing the basis for the preparation of an application for Community Choice to be submitted to the CPUC.

#### GOALS

This plan update is based on the following revised goals for the public outreach and community relations process.

#### 2005-2007 Goals

- 1. Brand KRCD as a local public entity that is reliable, competent and trustworthy.
- 2. Increase public awareness and understanding of KRCD, its responsibilities and functions.
- 3. Define the conditions of the energy crisis in the central San Joaquin Valley.
- 4. Educate potential customers about the benefits of Community Choice.
- 5. Continue to gain support of aggregators, influencers and other stakeholders for Community Choice with KRCD.

The purpose of this plan update is to provide a strategic foundation and direction for activities to be conducted during a 2-year period, specifically FY 2005-2006 and FY 2006-2007. During this timeframe, there are several factors that will impact the plan over time. These factors and their impacts are as follows:

**Public Opinion Survey**: A public opinion survey will be implemented during the summer of 2005. The purpose of the survey will be to measure changes in public understanding about KRCD and its services, gain insight into their understanding of Community Choice, understand respondent perceptions of renewable energy and gauge their choices for a renewable energy component for local Community Choice efforts.

**CPUC Application Process**: The process and timing of preparing an Application for Community Choice will have an impact on the messaging and implementation timeline of this plan. All developmental tasks and implementation strategies must respond to the issues, timing and participant viewpoints as the implementation of this plan proceeds.

**Competitor Response and Involvement**: While this plan anticipates specific reaction and action from competitors, it cannot provide specific detail on the timing and intensity of their response or the approach of their involvement. Preparation of messaging throughout the 2-year period to assure clear reiteration of key milestones, issues and Community Choice benefits is essential to meeting KRCD goals.

This plan update follows the same planning process articulated in the initial plan:



# **SECTION TWO – STRATEGY**

## INTRODUCTION

This section of the plan follows a similar strategy as the original 3-year plan, specifically presenting the following:

- Significant findings of the assessment study
- Message concepts to be communicated
- Audiences to be reached
- Tools and media to be used
- Assessment strategies

#### ASSESSMENT FINDINGS

This plan update utilizes the findings of the original 2002 public opinion survey and new stakeholder interviews conducted in 2004 to present the following five conclusions that are important to consider in the refinement of a strategy. These conclusions will be tested in a follow-up survey and then updated to assess their continuing impact on KRCD public outreach activities. The conclusions are:

- 1. The general public and stakeholders think the energy crisis still exists.
- 2. Cost "drives" customer choice and stakeholder choice.
- Awareness of KRCD and its purpose has expanded somewhat over the last two years but is still limited.
- 4. Awareness of community choice aggregation is extremely limited. After the new concept was explained during the stakeholder interview, cost savings was seen as the primary strength of community choice. Other strengths mentioned were local control, clean energy opportunities and economic development.
- 5. The vast majority of the stakeholders felt strongly that rate setting was best done at the regional level.

Panagraph has worked together with KRCD staff to implement public outreach activities based on strategic objectives. A summary of the public outreach activities for the previous 3-year period is provided in Appendix A.

## MESSAGE CONCEPTS

The strategic objectives for public outreach must be transformed into messages that can be conveyed through the communication tools and media that best target the identified audiences. These message concepts are not the actual copy to be utilized in the media and communication tools, but are the concepts that are to be conveyed to the audience.

While the major "driver" of past public outreach activities has been to gain support of stakeholders to address the region's lack of reliability in electrical generation and delivery, future public outreach efforts will have a multi-faceted, two-pronged approach: (1) continuing and reinforcing the current effort with stakeholders; and (2) branding and enhancing the public's trust in and support of Community Choice. Discussions of the specific audiences that need to be targeted to receive messages are reviewed on pages 10-16, as are the communication tools and media opportunities on pages 22-30. Some messages are more pertinent for one audience than another and some are better conveyed in one medium than another. Figure 1, found on pages 17-21, identifies the audiences targeted for each of the specific messages. Figure 2 (p. 30) illustrates the media most appropriate for reaching specific audiences, and Figure 3 (pp. 31-35) presents the tools and media most appropriate in the distribution of the messages.

## Objective 1: Brand KRCD as a local public entity that is reliable, competent and trustworthy.

## Message Concepts:

- a. KRCD is a local public entity that is reliable, competent, trustworthy, accessible and responsive.
- b. KRCD staff adheres to principles of professionalism, accountability, efficiency, excellence and innovation at all times.

c. KRCD values integrity, respect and openness in dealing with all people.

# Objective 2: Increase public awareness and understanding of KRCD, its responsibilities and functions.

#### Message Concepts:

- a. KRCD, formed in 1951, is a leading resource management agency for the Kings River, serving agricultural, business and community residents within 1.2 million acres in portions of Fresno, Kings and Tulare counties.
- b. KRCD provides the following essential services: power generation, water resource management and environmental stewardship.

#### **Power Generation:**

- c. KRCD has successfully operated the Pine Flat Power Plant since 1984, providing reliable, low-cost power for the State Water Project.
- d. KRCD, under contract with the Department of Water Resources (DWR), has constructed a 97-megawatt peaking power generation plant in Malaga to meet demand on days when Valley power supplies are tight.
- e. In an effort to address energy shortages in the central San Joaquin Valley, KRCD is exploring alternatives for additional energy infrastructure projects, which will add reliability and stability to the local electricity system that serves the District and the 14 cities it surrounds.

#### Water Resource Management:

- f. KRCD works to achieve a balanced groundwater basin, to provide effective and efficient flood protection, and to encourage water conservation.
- g. KRCD works in partnership with KRWA and its members in groundwater recharge and banking activities.

#### Environmental Stewardship:

- KRCD is committed to providing its services in an environmentally sensitive and responsive manner to assure the quality of life on the Kings River is enjoyed by future generations.
- i. KRCD works in partnership with KRWA and its members in water quality management, fisheries management and other environmental stewardship activities.
- j. KRCD works with local and regional interests to meet local air quality and waste management objectives.

#### Objective 3: Define the conditions of the energy crisis in the central San Joaquin Valley.

#### Message Concepts:

- a. California's energy crisis is felt more significantly in the central San Joaquin Valley than in many other regions of the state due to its climate and location.
- b. Investment in new power generation capacity has not kept up with the growing demand for electricity in the central San Joaquin Valley.

c. Resources allocated to the existing distribution system in this area are lacking compared to other parts of the state.

## Objective 4: Educate potential customers about the benefits of Community Choice.

## Message Concepts:

- a. Community Choice permits any city or county to combine the electric loads of their constituents for the purchase and sale of electrical energy.
- b. Community Choice provides local decision makers with more control over the generation component of the electrical service provided to their communities.
- c. The existing investor-owned utility (e.g., PG&E or Southern California Edison) will continue to deliver energy to homes and businesses and provide maintenance and billing services.
- d. Community Choice with KRCD will improve the reliability of electrical service in the central San Joaquin Valley while providing the opportunity for cost reductions, price stability, economic growth, resource development and environmental stewardship.
- e. Customer savings, conservatively estimated at 4 to 6 percent on the generation component of the power bill, can be expected as a result of implementing Community Choice with KRCD.
- f. Community Choice with KRCD will provide an opportunity to participate in environmentally sensitive, renewable energy generation solutions that will help to improve the air quality and waste management issues in the region.
- g. Customers will NOT receive the benefits of Community Choice with KRCD if they decide to "opt out."

Objective 5: Continue to gain support with aggregators, influencers and other stakeholders for Community Choice with KRCD.

## Message Concepts:

- a. KRCD is pursuing Community Choice with the cities and counties within its service area to improve the reliability of electrical service, stabilize costs and establish local involvement in decision making.
- b. KRCD is qualified to lead a Community Choice partnership.
- c. Community Choice with KRCD can provide the following benefits: nonprofit status for cost savings; tax-exempt bond financing; and new local power facilities.

#### AUDIENCES

Specific audiences must be reached in a targeted manner if the public outreach and community relations effort is to be successful. This section describes these specific audiences, which are divided into three groups: (1) aggregators; (2) influencers; and (3) potential customers. The last audience, potential customers, holds special significance within the scope of this plan update because of the opt-out decision-making process and its impact on the fiscal feasibility of Community Choice.

#### Aggregators

- Local government officials
- City and county staff

#### Influencers

- Business organizations
- Service clubs
- Environmental groups

- Taxpayer groups
- Media

**Potential Customers** 

- Large industry COOs
- Developers
- Agribusiness owners
- Small business owners
- Residents

As previously mentioned, Figure 1 (pp. 17-21) presents a summary of the message concepts and the audiences to which the messages will be targeted. The chart depicts which message concepts are to be communicated to which audience group. Figure 2 (p. 30) indicates the tools and media most appropriate for reaching the specific audiences. Below is description of each of the audiences to be reached.

## Local Government Officials

Local governments have been provided with the opportunity to aggregate the electrical loads of their residents, businesses and municipal facilities for electrical purchases through joining the Community Choice partnership with KRCD. The level of knowledge about energy issues, specifically Community Choice, varies among government officials but certainly is at a higher level due to KRCD public outreach efforts and workshops implemented over the past 18 months. Evidence of this is seen in the fact that 11 cities and one county have signed a Memorandum of Understanding to further pursue Community Choice with KRCD. Outreach and educational efforts must continue to reinforce messaging and answer questions related to Community Choice and regional power generation needs. Subgroups that must be reached include the following:

- Public utilities directors for each of the 14 cities within the KRCD service area
- City managers
- Mayors and city council members

- County administrative officers for each of the three counties that fall within the KRCD service area
- Boards of Supervisors for each of the counties

State and federal policymakers are another important sub-group within the government official audience. These key leaders shape energy policy and influence many of the local officials. Support from the Chair of the Utilities and Commerce Committee of the California State Assembly is especially important.

Continuing one-on-one meetings with these key stakeholders will be one of the most effective communication tools to both maintain and develop support for Community Choice. Reworking the existing print materials, long format video and PowerPoint presentation, as needed, will provide support tools that will continue to facilitate efficient and effective meetings and workshops.

## **Business Organizations**

There are many business organizations that exist to recruit new businesses and provide support to existing businesses and industries. Most of these groups have regularly scheduled meetings where KRCD can discuss Community Choice and other energy issues in detail with key executives.

- Economic development corporations for each county
- Chambers of commerce for each of the 14 cities
- Fresno Business Council
- Great Valley Center
- Regional Jobs Initiative task forces

Endorsement from such organizations would help tremendously as KRCD meets with business and industry stakeholders to garner support for Community Choice.

## Service Clubs

Since many key community leaders participate in service clubs, such as Rotary, Kiwanis and Lions, it is important for KRCD to continue its efforts of public outreach to this audience. Most groups that

regularly schedule meetings are interested in filling their calendars with well-prepared programs that provide essential information on quality of life in the community. Presentations allow for communicating the more complex messages and should be structured to provide clear information and give the group members an opportunity to ask questions and make comments. The members of these groups often disseminate messages to others through word-of-mouth communication.

#### **Environmental Groups**

Environmental groups continue to have concerns about air quality, power generation technology and the health of the Kings River. They often pursue litigation as a method of forestalling project progress. It will be important to meet with environmentalists and maintain open lines of communication to avoid long, protracted battles. It is important for KRCD to continue current efforts of engaging these parties, addressing their concerns and incorporating environmental solutions into the Community Choice planning.

#### **Taxpayer Groups**

Taxpayer groups will register concern over the fiscal impact of Community Choice on taxpayers. It will be important to meet with these stakeholders to assure that communication lines are open and clear. By explaining that the ratepayers should enjoy lower rates for electrical generation, their concerns should be alleviated. Taxpayer groups may have issues with how participating cities and counties want to use revenue from the aggregation process for municipal purposes. Help and support should be offered to these entities when needed and appropriate.

#### Media

Media representatives are an important audience because of the central role they play in distributing messages, particularly in news coverage of political issues, events and related stories. An ongoing task of the public outreach effort will be to respond to changes in media staffing and programming strengths as well as identify the most effective media opportunities for KRCD and Community Choice. Opinion editorials should be prepared, distributed and published at key milestones of the project so that supportive information is available for review by the public. Through these efforts, media representatives

will be able to present Community Choice messages more accurately. A comprehensive listing and discussion of the strengths of the various newspapers, television stations and radio stations can be found on pages 26-30.

## Large Industry COOs

Many of the large industries in the KRCD service area that are high-energy users and have experienced the most serious impacts of the energy crisis with increased cost and decreased reliability have been contacted over the past couple of years. Efforts to solicit input on their energy needs and gain their support of Community Choice should continue and become particularly intense in the weeks before the opt-out notification is implemented. The chief operations officers (COOs) are responsible for facilities management and would be the most interested in the benefits of decreased cost and increased reliability provided by Community Choice. The following industries should continue to be targeted for outreach through one-on-one meetings and presentations at business leadership organizations and service clubs:

- Food processing
- Manufacturing
- Hospitals

## Developers

Developers have historically been supportive of public power and will, most likely, be supportive of Community Choice since the lower cost of electricity is attractive to new homebuyers. The most effective tool for reaching this audience is conducting one-on-one meetings with these key stakeholders and making presentations to the Building Industry Association.

## **Agribusiness Owners**

Growers depend on reliable, low-cost energy to pump irrigation water according to an optimized watering schedule. Packers often have tremendous refrigeration needs. Due to the large number of

stakeholders in this audience, it is recommended that they be reached through direct mail and trade organizations such as the local farm bureaus and the Western Growers Association.

#### **Small Business Owners**

Small businesses have a difficult time staying profitable in today's business climate. There are many reasons for this, but the lower cost of energy provided by Community Choice will garner support from the business community. Ongoing communication and outreach is important for the KRCD public outreach effort since competitors provide considerable public service and community sponsorships and are highly visible in the business community. This audience should be considered a subgroup of the general public in that they also need assistance in understanding the wider issues, challenges and opportunities associated with the energy crisis and Community Choice. This applies particularly to smaller businesses that may not be familiar with power issues. Targeted print materials, direct mail, editorials and media exposure are all effective tools with this audience.

#### Residents

Now that most of the cities have decided to aggregate electrical power for their constituents, it will be important to support their efforts in communicating with their constituencies. Clear information about the benefits of Community Choice and the opportunities provided by participating in Community Choice will be important to reiterate repetitively over time. This messaging will be of particular importance as the timeframe for the "opt-out" notification nears. While KRCD cannot determine the rates that customers will pay in each of the participating cities and counties, it must raise awareness of Community Choice so that it becomes an actual alternative for individuals to consider.

When needed, it will continue to be important to maintain an open, public process where citizens are kept informed and are allowed to participate in shaping local solutions. Conducting public meetings will continue to be an excellent tool for assuring this open public process.

It will also be important to build on past efforts and continue to raise awareness and understanding of KRCD, as an organization, so that consumers know, respect and trust KRCD as a Community Choice

partner. Building new and maintaining current levels of awareness will require the use of mixed media and targeted public relations activities.

Certain media, including radio and television, are sold by demographics--making it necessary to identify target audiences by age, gender and place. For radio and television, demographics are used to select the programming and stations that deliver the broadest audience for the resources allocated to the effort.

The largest audiences to be reached by the public outreach effort are the English- and Spanishspeaking general public, 25 years of age and older, who reside in the KRCD service area. These groups will be the primary target audiences of the media strategy. It is recommended that Hmong-speaking households be included as a secondary audience so that they can become knowledgeable about the benefits of Community Choice and participate in decision making.

A combination of media will be selected for the campaign based on each medium's strength to deliver messages to all members, or segments, of the general public in a cost-effective and message-appropriate manner. A discussion of the strengths of each medium and tool is presented on pages 26-30.

# Figure 1. Audiences Targeted to Receive Specific Message Concepts

MESSAGE CONCEPTS	AUDIENCES										
Aggreg	ators				Influer	ncers		Pot	ential	Custo	mers
Objective 1 Prand VDCD as a loss	Local Governments	Business Organizations	Service Clubs	Environmental Groups	Taxpayer Groups	Media	Large Industry COOs	Developers	Agribusiness Owners	Small Business Owners	Residents
	ומטון ד		y inai	IS Tella	able, c	ompe	ieni al		Sivvori	iy.	
reliable, competent, trustworthy, accessible and responsive.	•	•	•	•	•	•	•	•	•	•	•
1b. KRCD staff adheres to principles of professionalism, accountability, efficiency, excellence and innovation at all times.	•	•	•	•	•	•	•	•	•	•	•
1c. KRCD values integrity, respect and openness in dealing with all people.	•	•	•	•	•	•	•	•	•	•	•
Objective 2. Increase public awareness a	and ur	ndersta	anding	g of KF	RCD, i	ts resp	oonsib	ilities	and fu	nction	IS.
2a. KRCD, formed in 1951, is a leading resource management agency for the Kings River, serving agricultural, business and community residents within 1.2 million acres in portions of Fresno, Kings and Tulare counties.	•	•	•	•	•	•	•	•	•	•	•
2b. KRCD provides the following essential services: power generation, water resource management and environmental stewardship.	•	•	•	•	•	•	•	•	•	•	•
2c. KRCD has successfully operated the Pine Flat Power Plant since 1984, providing reliable, low-cost power for the State Water Project.	•					•					•

MESSAGE CONCEPTS AUDIENCES											
Aggreg	ators				Influer	ncers		Pot	ential	Custo	mers_
	Local Governments	Business Organizations	Service Clubs	Environmental Groups	Taxpayer Groups	Media	Large Industry COOs	Developers	Agribusiness Owners	Small Business Owners	Residents
2d. KRCD, under contract with the Department of Water Resources (DWR), has constructed a 97-megawatt peaking power generation plant in Malaga to meet demand on days when Valley power supplies are tight.	•					•					•
2e. In an effort to address energy shortages in the central San Joaquin Valley, KRCD is exploring alternatives for additional energy infrastructure projects, which will add reliability and stability to the local electricity system that serves the District and the 14 cities it surrounds.	•	•	•	•	•	•	•	•	•	•	•
2f. KRCD works to achieve a balanced groundwater basin, to provide effective and efficient flood protection, and to encourage water conservation.	•			•					•		•
2g. KRCD works in partnership with KRWA and its members in groundwater recharge and banking activities.	•			•					•		
2h. KRCD is committed to providing its services in an environmentally sensitive and responsive manner to assure the quality of life on the Kings River is enjoyed by future generations.				•							
2i. KRCD works in partnership with KRWA and its members in water quality management, fisheries management and other environmental stewardship activities.				•					•		

MESSAGE CONCEPTS	ONCEPTS AUDIENCES										
Aggreg	ators				Influer	ncers		Pot	ential	Custo	mers
	Local Governments	Business Organizations	Service Clubs	Environmental Groups	Taxpayer Groups	Media	Large Industry COOs	Developers	Agribusiness Owners	Small Business Owners	Residents
2j. KRCD works with local and regional interests to meet local air quality and waste management objectives.	•			•		•					•
Objective 3. Define the conditions	s of the	e ener	gy cris	sis in t	he cer	ntral S	an Jo	aquin	Valley		
3a. California's energy crisis is felt more significantly in the central San Joaquin Valley than in many other regions of the state due to its climate and location.	•	•	•			•	•	•			
3b. Investment in new power generation capacity has not kept up with the growing demand for electricity in the central San Joaquin Valley.	•	•	•			•	•	•			
3c. Resources allocated to the existing distribution system in this area are lacking compared to other parts of the state.	•	•	•			•	•	•			
Objective 4. Educate potential	custor	ners a	ibout i	the be	nefits (	of Cor	nmuni	ity Cha	oice.		
4a. Community Choice permits any city or county to combine the electric loads of their constituents for the purchase and sale of electrical energy.	•	•	•				•	•	•	•	•
4b. Community Choice provides local decision makers with more control over the generation component of the electrical service provided to their communities.	•										

MESSAGE CONCEPTS	AUDIENCES										
Aggreg	ators				Influer	ncers		Pot	ential	Custo	mers_
	Local Governments	Business Organizations	Service Clubs	Environmental Groups	Taxpayer Groups	Media	Large Industry COOs	Developers	Agribusiness Owners	Small Business Owners	Residents
4c. The existing investor-owned utility (e.g., PG&E or Southern California Edison) will continue to deliver energy to homes and businesses and provide maintenance and billing services.	•	•	•			•	•	•	•	•	•
4d. Community Choice with KRCD will improve the reliability of electrical service in the central San Joaquin Valley while providing the opportunity for cost reductions, price stability, economic growth, resource development and environmental stewardship.	•	•	•	•	•	•	•	•	•	•	•
4e. Customer savings, conservatively estimated at 4 to 6 percent on the generation component of the power bill, can be expected as a result of implementing Community Choice with KRCD Power.	•	•	•		•	•	•	•	•	•	•
4f. Community Choice with KRCD will provide an opportunity to participate in environmentally sensitive, renewable energy generation solutions that will help to improve the air quality and waste management issues in the region.	•			•							
4g. Customers will NOT receive the benefits of Community Choice with KRCD if they decide to "opt out."	•	•	•	•	•	•	•	•	•	•	•

MESSAGE CONCEPTS AUDIENCES											
Aggrega	tors				Influer	ncers		Pot	ential	Custo	mers
	Local Governments	Business Organizations	Service Clubs	Environmental Groups	Taxpayer Groups	Media	Large Industry COOs	Developers	Agribusiness Owners	Small Business Owners	Residents
Objective 5. Continue to gain support with a	aggre Choic	gators ce with	, influe n KRC	encers D.	s and o	other s	stakeh	olders	s for C	ommu	nity
5a. KRCD is pursuing Community Choice with the cities and counties within its service area to improve the reliability of electrical service, stabilize costs and establish local involvement in decision making.	•	•	•	•	•	•	•	•	•	•	•
5b. KRCD is qualified to lead a Community Choice partnership.	•					•	•				•
5c. Community Choice with KRCD can provide the following benefits: nonprofit status for cost savings; tax-exempt bond financing; and new local power facilities	•				•						

#### TOOLS AND MEDIA

Overall, it is recommended that the public outreach effort for KRCD and Community Choice continue to utilize a combined approach of community relations and mixed media campaigns to reach the target audiences. Suggested here are some specific tools and media that have been effective vehicles for communicating targeted messages.

#### Tools

- Stakeholder meetings
- Community relations
- Editorial and media relations
- Long format video
- Website
- Print materials
- Speakers' bureau
- Direct mail

#### Media

- Television
- Radio
- Newspaper
- Signage

Figure 2, found at the end of this section on page 30, summarizes which tools and media should be used to reach specific audiences. Figure 3, on pages 31-35, illustrates which media should be used for communicating specific message concepts. Below is description of each of the tools and media to be considered.

#### **Stakeholder Meetings**

An important part of this public outreach strategy is to continue to meet in person with key community leaders to communicate about Community Choice and how KRCD can bring the benefits of Community Choice to the Valley. It will also be important to continue to communicate the KRCD "brand" and basic messages developed in prior years. One-on-one stakeholder meetings are especially appropriate for reaching government officials, large industry COOs and special interest groups. This form of personalized communication is most effective for addressing concerns and gaining support. Print materials should be revised to reflect important milestones in the development of Community Choice and to communicate KRCD's progress in the development of new generation projects. These materials should be used and left behind for reference.

#### **Community Relations**

Existing networks will continue to be utilized to set up stakeholder meetings, recruit Community Choice presenters, organize speaking engagements for community groups and events, and disseminate targeted materials through existing association newsletters and publications. This element of the public outreach strategy will grow over time as interest gathers in the benefits of Community Choice and the aggregators require information and relational communication strategies to help predict, prepare and answer constituents' questions.

#### **Editorial and Media Relations**

Editorial and media relations will become more and more important as the opt-out decision making nears. Planning ahead, anticipating issues and concerns, organizing editorial meetings, meeting with reporters and proactively gaining the support of the editorial boards of each of the local and regional publications will be an important effort on the part of this public outreach strategy. Building widespread awareness of KRCD and its efforts in all three areas—water, power and the environment—will help build trust in KRCD as a worthy partner for Community Choice. Activities should include the identification of critical third-party endorsements that will speak to the trustworthiness of KRCD and the benefits of Community Choice. These endorsements must come from well-respected journalists, analysts, community

stakeholders and other community opinion leaders so that the constituencies of the aggregators perceive the messages as genuine and credible. In addition, published reports and articles secured through these activities will provide detailed information about key milestones of Community Choice and/or power generation development and the benefits that each has to the future reliability and quality of electrical delivery.

Specific editorial and media relations tools will continue to include:

- Backgrounder a detailed document refined as needed to include the history of Community Choice and the KRCD partnership, the need for its services, and the value that it brings to the service area
- Fact Sheet a one- or two-page document that highlights the crucial facts needed to understand what KRCD is planning and what the benefits of its actions are
- **Press Release** an announcement distributed to key media to highlight specific news related to KRCD, Community Choice activities and/or news related to an aggregator
- Testimonial supporting quotes from customers, analysts, or other key opinion leaders
- Case Study an example of how a specific group or individual benefited from the services the organization provides
- Media Kit a compilation of public relations materials that is used to communicate Community Choice and KRCD messages to its target audiences
- Article Abstracts specific article ideas sent to editors and writers to suggest a story that will relate to Community Choice and/or KRCD goals
- Editorial Pitching contact with targeted editors and writers to develop story ideas and secure coverage
- Media Training preparation of KRCD leadership, Community Choice leadership and/or an aggregator's leadership to assure that messaging is delivered accurately, concisely and without unforeseen errors
- Press Tour a scheduled campaign of face-to-face meetings with targeted editors, writers and other opinion leaders to develop personal relationships and accurately convey the desired messaging through dialogue

- Crisis Communications a detailed plan and preparation to assure that communication during a crisis is clear and avoids compounding an issue
- Event Planning the planning and implementation of a public event to promote broad community awareness of Community Choice and KRCD

## Long Format Video

The existing long format video has been utilized to brand KRCD as a reliable public entity, one that is packed with excellence and integrity. The tool has been helpful in building trust in KRCD among business leaders and community groups. It may be useful for KRCD to consider a reworking of the video so that it is targeted at conveying the message that Community Choice has important benefits for regional residents and that the current efforts on the part of KRCD and its partners are worthy of support.

The video could be used in group settings, such as council meetings and business workshops to deepen understanding of Community Choice and encourage word-of-mouth support for the effort. Themes about the excellence and integrity of KRCD should be maintained along with the look and feel established in the initial video presentation.

#### Website

KRCD invested into the development of a website that offers easy access to information about KRCD and the opportunity provided by its power generation projects and Community Choice. As progress is made in Community Choice, the website should continue to be updated and links expanded to provide easy access to information for constituencies of the various aggregators. In addition, the development of a project website for Community Choice should be considered to enhance its brand position and to make it easy for customers to find information quickly. Email newsletter blasts should be organized to communicate regular information about achievement of project milestones and continual communication about Community Choice benefits.

#### **Print Materials**

Print materials, such as brochures and fact sheets, will continue to be used as needed in the public outreach effort to reach all of the identified audiences. During the second year, an opt-out notification mailer will be developed that is clearly and effectively designed to make the option and action needed for choice clear.

#### Speakers' Bureau

Continuing and expanding the speakers' bureau program is a strategy worth consideration by KRCD and Community Choice leadership. It is a continuing truth that audiences within governmental agencies, businesses, industry, community groups and environmental groups can be reached with a high degree of effectiveness through a speakers' bureau. It is effective for speakers to present prepared information, including a revised long format video on KRCD and Community Choice. This strategy does require a high number of staff and/or volunteer hours in training, scheduling and implementing the speaking engagements. It is recommended that key aggregators be engaged in a discussion on whether they want or have the time to participate in such a program. If willing to involve themselves in such a program, planning and supporting their efforts will help advance a successful conclusion to the Community Choice effort.

#### **Direct Mail**

Direct mail is a required element of moving forward with Community Choice. All aggregator constituencies must be provided with the opportunity to opt out of the Community Choice program. Establishing a recognizable, trustworthy direct mail brand for the Community Choice effort will be helpful in achieving desired outcomes for a successful aggregation program.

#### Media Planning

Media strengths change over time. The television market has experienced dramatic change over the past 10 years with the entrance of new competitors and the expansion of cable television. The radio market has always been fragmented. This trend continues with frequent format changes and lack of audience loyalty. Media analysis will be completed each time a new purchase is made to assure the public outreach effort is as cost effective as possible. The following components are generally scheduled into a coordinated communications strategy:

- Newspaper advertisements
- Television public service announcements
- Radio public service announcements
- Signage

To accomplish effective communication about KRCD and Community Choice, the media plan should include at least two mixed media campaigns each year. Each campaign should focus on a central theme and last six to eight weeks.

The Greater Fresno Area is served by a number of television and radio stations, one general market newspaper and a number of smaller newspapers that target rural audiences. Due to the area's relative isolation from media influences from Los Angeles and the San Francisco Bay Area, there are certain communications advantages including broad market coverage, control and costs.

#### Television

All television stations located in the market area have viewer levels that will be effective for this public outreach strategy. Television will be used to reach all target audiences within the general public. Television advertising purchases are based on gross rating points and size of target audiences delivered by available programming. The cost will be balanced with decisions about the type of programming with which KRCD and/or Community Choice should be identified. Programming will be selected based on the age of the viewer and other relevant demographics. Public service time will be considered in the media planning process, as some stations are willing to contribute more than others. A list of television stations to be considered is found below:

- Comcast Spotlight (Cable)
- KVPT, Channel 18 (Public Television)
- KSEE, Channel 24 (NBC)
- KMPH, Channel 26 (FOX)
- KFSN, Channel 30 (ABC)
- KGPE, Channel 47 (CBS)

- KAIL, Channel 53 (UPN)
- KFRE, Channel 59 (WB)
- KFTV, Channel 21 (Univision)
- KTFF, Channel 41 (Telefutura)
- KNSO, Channel 51 (Telemundo)

## Radio

Radio will also be used to reach most of the target audiences within the general public. A current list of the most popular radio stations should be prepared for every campaign, analyzing the audience by demographic and time-of-day factors. The following is a summary of the "top 10" radio stations based on the Fall 2004 Arbitron book.

STATION	RATING*	SHARE*	AUDIENCE
KMJ (News Talk 580 AM)	2.5	11.5	General public, 25+
KSKS (Country 93.7)	1.4	6.7	General public, 25+
KJWL (K-Jewel 99.3)	1.2	5.7	General public, 25+
KMGV (MEGA 97.9)	1.1	5.1	General public, 25+
KJFX (Classic Rock 95.7)	1.0	4.7	General public, 25+
KOND (Que Onda 92.1)	0.8	3.9	General public, 25+
KEZL (Smooth Jazz 96.7)	0.8	3.6	General public, 25+
KALZ (Alice 102.7)	0.7	3.4	General public, 25+
KSOF (Soft Rock 98.9)	0.7	3.4	General public, 25+
KOQO (Super Q 101.9)	0.7	3.2	General public, 25+

\* *Rating* reflects the percentage of total radio audience reached by the station in an average one-quarter hour period from Monday to Friday, 6 a.m. to 7 p.m., based on the most recent Arbitron book. *Share* represents the percentage of the radio audience listening to a particular radio station.

#### Newspaper

The Fresno Bee has been the dominant newspaper of the region for many years. There are also several smaller newspapers that serve the other 13 cities in the KRCD service area. The following newspapers will be considered for placing advertisements:

- Business Journal
- City View Neighbors
- Clovis Independent
- Dinuba Sentinel
- Fowler Ensign
- Fresno Bee
- Hanford Sentinel
- Kerman News/Advertiser
- Kingsburg Recorder

- Lemoore Advance
- Orange Cove/Mt. Times
- Parlier Post
- Reedley Exponent
- Sanger Herald
- Selma Enterprise
- Twin City Times
- Vida en el Valle

#### Signage

Outdoor advertising, such as billboards and bus signs, are utilized to reinforce the newspaper and broadcast media in reaching the general public audience. The concept of Community Choice should be branded with the help of billboards along with the message of the partnership with KRCD, this done through showing the KRCD logo and tag line.

Bus signage is an effective medium for delivering messages to the Fresno Metropolitan Area. The signs are posted on the exterior and interior of the buses. The signage on the side of the bus is called a "king" while the signage on the back of the bus is known as a "tail." These forms are widely visible by commuters and bus riders. The interior bus signage is especially effective in reaching the bus rider. Interior signage is posted on the inside of the bus for three months at a time. Fresno Area Express puts this signage up at no cost to the non-profit or government agency. Both of these opportunities are cost effective and provide visibility to all ethnic demographics and audiences. Another option, the "bus wrap," is

larger than the king and tail because the graphic covers the entire bus. The advantages of the bus wrap are that it can be seen from all angles and is more attention grabbing.

AUDIENCES	T00	LS							MED	AI		
	Stakeholder Meetings	Community Relations	Editorial Relations	Long Format Video	Website	Printed Materials	Speakers' Bureau	Direct Mail	Television	Radio	Newspaper	Signage
Aggregators												
Local Government Officials	•	•	•	•	•	•						
Influencers												
Business Organizations	•	•	•	•		•	•					
Service Clubs		•		•		•	٠					
Environmental Groups	•	٠		•		•	٠					
Taxpayer Groups	•					•						
Media			•		•	•						
Potential Customers												
Large Industry COOs	•					•	•	•				
Developers	•	٠				•	٠					
Agribusiness Owners		•				•		•				
Small Business Owners					•	•	•	•				
Residents					•	•		•	•	•	•	•

	Teels and Media	Maat Ammunaniat	a ta Daaah C	a alfia Audiamaaa
FIGURE 7	TOOLS AND MEDIA	IMOSI ADDIODIIAI	e io Reach N	pecific Alignees
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MESSAGE CONCEPTS	TOC	)LS					MEDIA						
	Stakeholder Meetings	Community Relations	Editorial Relations	Long Format Video	Website	Printed Materials	Speakers' Bureau	Direct Mail	Television	Radio	Newspaper	Signage	
Objective 1. Brand KRCD as a	local p	oublic (	entity i	that is	reliab	le, col	npetei	nt and	' trustv	vorthy			
1a. KRCD is a local public entity that is reliable, competent, trustworthy, accessible and responsive.	•	•	•	•	•	•	•	•	•	•	•	•	
1b. KRCD staff adheres to principles of professionalism, accountability, efficiency, excellence and innovation at all times.	•	•	•	•	•	•	•	٠	•	•	•	•	
1c. KRCD values integrity, respect and openness in dealing with all people.	•	•	•	•	•	•	•	•	•	•	•	•	
Objective 2. Increase public awarene	ess an	d unde	erstan	ding o	f KRC	D, its	respoi	nsibilit	ies an	d func	tions.		
2a. KRCD, formed in 1951, is a leading resource management agency for the Kings River, serving agricultural, business and community residents within 1.2 million acres in portions of Fresno, Kings and Tulare counties.	•	•	•	•	•	•	•	•					
2b. KRCD provides the following essential services: power generation, water resource management and environmental stewardship.	•	•	•	•	•	•	•	•	•	•	•	•	
2c. KRCD has successfully operated the Pine Flat Power Plant since 1984, providing reliable, low-cost power for the State Water Project.	•	•	•	•	•	•	•						
2d. KRCD, under contract with the Department of Water Resources (DWR), has constructed a 97-megawatt peaking power generation plant in Malaga to meet demand on days when Valley power supplies are tight.	•	•	•	•	•	•	•						

# Figure 3. Tools and Media Most Appropriate in the Distribution of Specific Message Concepts

MESSAGE CONCEPTS	TOC	DLS	LS MEDIA										
	Stakeholder Meetings	Community Relations	Editorial Relations	-ong Format Video	Website	Printed Materials	Speakers' Bureau	Direct Mail	Television	Zadio	Vewspaper	Signage	
2e. In an effort to address energy shortages in the central San Joaquin Valley, KRCD is exploring alternatives for additional energy infrastructure projects, which will add reliability and stability to the local electricity system that serves the District and the 14 cities it surrounds.	•	•	•	•	•	•	•	•		•	•		
2f. KRCD works to achieve a balanced groundwater basin, to provide effective and efficient flood protection, and to encourage water conservation.				•	•	•							
2g. KRCD works in partnership with KRWA and its members in groundwater recharge and banking activities.				•	•	•							
2h. KRCD is committed to providing its services in an environmentally sensitive and responsive manner to assure the quality of life on the Kings River is enjoyed by future generations.	•	•	•	•	•	•	٠	•		•	•		
2i. KRCD works in partnership with KRWA and its members in water quality management, fisheries management and other environmental stewardship activities.				•	•	٠							
2j. KRCD works with local and regional interests to meet local air quality and waste management objectives.	•	•											

MESSAGE CONCEPTS	TOC	LS					MEDIA						
Objective 3. Define the condit	o: Stakeholder Meetings o	e et t e et tors de lations	Editorial Relations	sisto Format Video	Website	Printed Materials	ler Speakers' Bureau	Direct Mail	nin Television	Radio	Newspaper	Signage	
3a. California's energy crisis is felt more significantly in the central San Joaquin Valley than in many other regions of the state due to its climate and location.	•	•	•	•	•	•	•	•	•	•	•		
3b. Investment in new power generation capacity has not kept up with the growing demand for electricity in the central San Joaquin Valley.	•	•	•	•	•	•	•	•		•	•		
3c. Resources allocated to the existing distribution system in this area are lacking compared to other parts of the state.	•	•	•	•	•	•	•						
Objective 4. Educate poten	tial cu	stome	ers abo	out the	e benel	fits of	Comn	nunity	Choic	е.			
4a. Community Choice permits any city or county to combine the electric loads of their constituents for the purchase and sale of electrical energy.	•	•	•	•	•	•	•	•					
4b. Community Choice provides local decision makers with more control over the generation component of the electrical service provided to their communities.	•	•	•		•	•	•	•					

MESSAGE CONCEPTS	TOOLS							MEDIA					
	Stakeholder Meetings	Community Relations	Editorial Relations	Long Format Video	Website	Printed Materials	Speakers' Bureau	Direct Mail	Television	Radio	Newspaper	Signage	
4c. The existing investor-owned utility (e.g., PG&E or Southern California Edison) will continue to deliver energy to homes and businesses and provide maintenance and billing services.	•	•	•	•	•	•	•	•					
4d. Community Choice with KRCD will improve the reliability of electrical service in the central San Joaquin Valley while providing the opportunity for cost reductions, price stability, economic growth, resource development and environmental stewardship.	•	•	•	•	•	•	•	•		•	•		
4e. Customer savings, conservatively estimated at 4 to 6 percent on the generation component of the power bill, can be expected as a result of implementing Community Choice with KRCD Power.	•	•	•		•	•	•	•					
4f. Community Choice with KRCD will provide an opportunity to participate in environmentally sensitive, renewable energy generation solutions that will help to improve the air quality and waste management issues in the region.	•	•	•	•	•	•	•	•		•	•		
4g. Customers will NOT receive the benefits of Community Choice with KRCD if they decide to "opt out."	•	•	•		•	•	•	•					

MESSAGE CONCEPTS	TOOLS						MEDIA						
Objective 5. Continue to gain support w	o Stakeholder Meetings	Community Relations	tive with the second	Under Communication (Communication) (COD)	cers a	puo printed Materials	beakers' Bureau	bleect Mail	ders for	or Con	numuni Uewspaper	Signage	
5a. KRCD is pursuing Community Choice with the cities and counties within its service area to improve the reliability of electrical service, stabilize costs and establish local involvement in decision making.	•	•	•	•	•	•	•	•	•	•	•		
5b. KRCD is qualified to lead a Community Choice partnership.	•	•	•	•	•	•	•	•	•	•	•		
5c. Community Choice with KRCD can provide the following benefits: nonprofit status for cost savings; tax-exempt bond financing; and new local power facilities	•	•	•		•	•	•						
#### **SECTION THREE – IMPLEMENTATION**

#### INTRODUCTION

This section of the plan update outlines the strategic tasks to be implemented over a period of two years. The plan's tasks seek to target the audiences described in the previous section, to coordinate with existing outreach programs and to support aggregator needs. A recommended timeline and budget can be found in Appendix B.

#### TASKS: YEAR 4 (FY 2005-2006)

#### 1. Public Opinion Survey

Conduct a telephone survey of 400 heads of household representative of the general public within the KRCD service area. Gauge public opinion and awareness of energy issues, especially Community Choice and green energy preferences. Develop a survey plan and a 12- to 15-minute questionnaire. Provide demographic analysis via cross-tabulation tables and prepare a written report of significant findings. Provide baseline quantitative data that will be helpful in the strategic development and implementation of a public outreach effort so that Community Choice can achieve its objectives.

#### 2. Strategic Services

Make recommendations, provide direction and prepare a conceptual summary of the impact of public opinion survey results on KRCD's strategic direction. Provide strategic planning, develop key message points, support editorial relations and stakeholder relations, utilize existing networks to hold briefing sessions with key community leaders, assist KRCD staff with scheduling and attending stakeholder meetings, prepare KRCD representatives for clear and on-point messaging should a crisis arise and assist with assessment of the public outreach effort.

#### 3. Communication Tool Development

Design, write and develop communication tools, as needed, to support community outreach opportunities related to Community Choice and KRCD services. Prepare and deliver art files to KRCD for printing on in-house color laser printer. Consider refining the long format video to include key messages about Community Choice.

#### 4. Website Additions and Modifications

Develop additional website pages and make modifications to existing pages as needed to support the public outreach effort and provide clear communication of Community Choice milestones, benefits, and the advantages and benefits of doing so with KRCD.

#### 5. Media Training

Prepare for and conduct a 2-hour, on-camera media training workshop for four key staff members and/or directors. Focus on the need for clear, consistent, on-point messaging about Community Choice, the aggregation process, regional energy issues and competitor comments.

#### 6. Mixed Media Campaign

Plan, coordinate and implement a mixed media campaign just before the CPUC approves the Community Choice program leading to the next step of executing power purchase agreements. Utilize radio, cable television and newspaper to further brand KRCD, generating name recognition and evoking trust in KRCD to lead the way in finding and implementing local energy solutions. Branding heightens credibility, helping stakeholders take KRCD seriously and value what it has to bring to the table.

#### 7. Community Choice Logo Development

Provide creative and art development services to develop an effective logo for the Community Choice program. Provide three to four logo concepts for review by the Community Choice management committee. Finalize logo design based on committee feedback.

#### 8. Community Choice Creative Branding

Provide creative and art development services to create three alternative branding approaches for review by the Community Choice management committee. These three alternatives will help identify effective images, themes and graphic styles for use in the Community Choice communication materials for consumers. Finalize the branding approach based on committee feedback.

#### 9. Community Choice Print Ad—English and Spanish

A black-and-white, island-size (4 col. x 10.5") newspaper ad about Community Choice will be designed for placement in the English and Spanish publications within the KRCD service area. The purpose of the ad is to generate awareness of and confidence in Community Choice among consumers prior to and during the time when they are given the opportunity to opt out.

#### 10. Community Choice Radio Spot—English and Spanish

A 60-second radio spot will be produced in English and Spanish to generate awareness of and confidence in Community Choice among consumers prior to and during the time when they are given the opportunity to opt out.

#### 11. Community Choice Television Spot—English and Spanish

A 30-second television spot will be produced in English and Spanish to generate awareness of and confidence in Community Choice among consumers prior to and during the time when they are given the opportunity to opt out. Strategic placement on television stations will support the radio and newspaper placements by combining strong visuals with audio.

#### TASKS: YEAR 5 (FY 2006-2007)

#### 1. Mixed Media Campaign

Plan for and be ready to implement a major mixed media campaign to educate about the benefits of Community Choice immediately after the Community Choice application is approved by the CPUC. Provide clear and repeated messages to reach the Community Choice aggregator constituencies to heighten their awareness of the benefits of participating in the Community Choice program and to explain the opt-out process. Time the campaign to begin approximately four to six weeks before the opt-out mailing. Continue the outreach campaign until all direct-mail pieces have been delivered and at least two weeks have passed following the mailing.

#### 2. Strategic Services

Provide strategic services to follow up on activities of the previous year. Provide a conceptual summary and evaluation of the status and outcomes of the public outreach effort to achieve Community Choice. Review the needs for public outreach and make recommendations based on Year 1 outcomes. Identify key milestones for power generation projects and other KRCD needs in water resource management and environmental stewardship. Other strategic services include, but are not limited to, strategic planning, message development, editorial relations, utilizing existing networks to hold briefing sessions with key community leaders, assisting District staff with scheduling and attending stakeholder meetings, preparing KRCD representatives for clear communication should a crisis arise and assisting with assessment of the public information and outreach effort.

#### 3. Print Material Development

Provide creative services to adapt existing fact sheets, backgrounders and other materials that are utilized in the continuing effort to achieve Community Choice. Assist in the development, duplication and distribution of an opt-out notification mailer for contacting all customers within the jurisdictions of the Community Choice partners. If budget allows, revise the KRCD brochure and fact sheets to include its efforts in Community Choice, branding it as a part of the KRCD brand itself.

#### 4. Long Format Video

If not done in the previous year as a part of Task 3, Communication Tool Development, revise and reproduce the long format video to include the benefits of Community Choice, branding it as though it was part of the KRCD brand itself. Provide KRCD staff with a conceptual script and budget information on revisions before beginning the task. Ensure that the approach includes the other key parts of the overall KRCD brand: water, power and environment.

#### 5. Community Choice Project Website

Develop a new project website for the Community Choice partnership so that the customers it serves can find important information about Community Choice activities, power generation issues and services. In addition, develop the website to enhance the brand position of Community Choice. Provide a website plan and website development and writing services as approved by KRCD staff.

#### 6. KRCD Website Additions and Modifications

Develop additional website pages and make modifications to existing pages as needed to support the public outreach effort and provide clear communication of KRCD, Community Choice milestones, power generation projects, water resource management, and environmental stewardship concerns and accomplishments.

#### 7. Media Training

Prepare for and conduct a 2-hour, on-camera media training workshop for four key staff members and/or directors. Focus on the need for clear, consistent, on-point messaging about KRCD and its projects, Community Choice, the aggregation process, regional energy issues and competitor comments.

#### Appendix A: Public Outreach Activities for Years 1-3

YEAR 1 TASKS (FY 02-03)	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Expenses
KRC-1: Public Opinion Survey													\$ 17,500
KRC-2: Stakeholder Interviews													\$ 12,500
KRC-3: Strategic Plan													\$ 15,000
KRC-4: Creative Branding													\$ 9,140
KRC-5: General Awareness Packet													\$ 14,500
KRC-6: Stationery													\$ 750
													<b>A A A A A A A A A A</b>

\$ 69,390

YEAR 2 TASKS (FY 03-04)	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Ex	penses
KRC-7: Long Format Video													\$	25,000
KRC-8: Printing													\$	5,400
KRC-9: Website													\$	18,500
KRC-10: Media Training													\$	2,400
KRC-11: Speakers' Bureau Kit													\$	10,000
KRC-12: Strategic Services													\$	8,000
KRC-13: CCA Communication Tools													\$	9,700
KRC-14: CCA Website Additions													\$	1,000
KRC-15: Newspaper Ad (Eng)													\$	1,600
KRC-16: Radio Spot (:60 Eng)													\$	2,200
KRC-17: TV Spot (:30 Eng)													\$	2,950
													¢	86 750

\$ 86,750

YEAR 3 TASKS (FY 04-05)	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Ex	penses
KRC-1: Mixed Media Placement													\$	60,500
KRC-2: Strategic Services													\$	13,900
KRC-3: Media Training													\$	1,750
KRC-4: Stakeholder Interviews													\$	10,300
KRC-5: Communication Tools													\$	3,900
KRC-6: Website Additions													\$	50
													*	00.400

Appendix B: Timeline and Budget for Years 4-	d Budget for Years 4-5
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YEAR 4 TASKS (FY 05-06)	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Bu	dget
1: Public Opinion Survey						ľ							\$ 2	25,000
2: Strategic Services													\$ 1	2,000
3: Communication Tool Development													\$	6,000
4: Website Additions													\$	4,000
5: Media Training													\$	1,700
6: Mixed Media Campaign (KRCD)													\$6	50,000
7: CC Logo Development													\$	5,000
8: CC Creative Branding													\$	4,500
9a: CC Print Ad (English)													\$	1,500
9b: CC Print Ad (Spanish)													\$	750
10a: CC Radio Spot (:60 English)													\$	3,000
10b: CC Radio Spot (:60 Spanish)													\$	2,000
11a: CC TV Spot (:30 English)													\$ 1	5,000
11b: CC TV Spot (:30 Spanish)													\$ 1	0,000
													\$ 15	0,450
YEAR 5 TASKS (FY 06-07)	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Bu	dget
1: Mixed Media Campaign (CC)													\$ 10	0,000
2: Strategic Services													\$ 1	2,000

2: Strategic Services							\$ 12,000
3: Print Material Development							\$ 12,000
4: Long Format Video Update							\$ 20,000
5: CC Project Website							\$ 12,000
6: KRCD Website Additions							\$ 4,000
7: Media Training							\$ 1,700

\$ 161,700

# City of Marlborough AGGREGATION PLAN Community Choice Power Supply

#### For additional information contact:

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Telephone: (508) 485-5858 Fax: (508) 485-5854

### Purpose of the Aggregation Plan

The City of Marlborough developed this Aggregation Plan in compliance with Massachusetts law regarding public aggregation of electric consumers. It contains required information on the structure, operations, services, funding, and policies of the city's plan. The Aggregation Plan has been developed in consultation with the Massachusetts Division of Energy Resources (DOER).

The purpose of this aggregation plan is to represent consumer interests in emerging competitive markets for electricity. It seeks to aggregate consumers in Marlborough to negotiate the best rates for the supply of electricity and to advance consumer protection for the residents and businesses of Marlborough. It brings together the buying power of more than 14,000 rate-paying customers. Participation is voluntary for each individual consumer. Individual consumers have the opportunity to decline service provided through the Plan and to choose any electric supplier they wish.

The Plan provides: 1) an option to join together for purchase of power supply at stable rates; 2) an opportunity for professional representation at the state level and in regional or local forums as the electric industry continues in a restructured marketplace.

The City of Marlborough has distributed this plan for public review prior to submitting it to the Department of Telecommunications and Energy ("DTE" or "Department").

### **CONTENTS**

- 1.0 The Process of Aggregation
- 2.0 The Organizational Structure and Operations of the City's Plan
- 3.0 Program Funding
- 4.0 Activation and Termination of the Power Supply Program
- 5.0 Methods for Entering and Terminating Agreements with Other Entities
- 6.0 Rate-setting and Other Costs to Participants
- 7.0 Universal Access
- 8.0 Equitable Treatment of All Classes of Customers
- 9.0 Reliability

10.0 Rights and Responsibilities of Community Choice Power Supply Program Participants

11.0 The Consequences of Aggregation

12.0 Requirements Established By Law or the Department Concerning Aggregated Service

### REQUIREMENTS FOR MUNICIPAL AGGREGATION

The Massachusetts Electric Industry Restructuring Act of 1997 contains several requirements for municipal aggregators. One requirement is to develop an Aggregation Plan in consultation with the Massachusetts Division of Energy Resources. The Aggregation Plan is subject to review by citizens in the participating city, and approval by the Department of Telecommunications and Energy. Under the law [M.G.L. c 164, section 134], there are twelve requirements to be described in the Aggregation Plan.

#### **1.0 THE PROCESS OF AGGREGATION**

The process of municipal aggregation involves a multi-step public process:

1.1 Vote of City Council to become a Public Aggregator

1.2 Letter of Authorization signed by Mayor

1.3 City representatives participate in Community Choice Power Supply Plan development

1.4 Review of Aggregation Plan by Mayor, City Council and citizens

1.5 Public Hearing on Aggregation Plan

1.6 Aggregation Plan to city council for acceptance vote, conditioned on DTE approval and final signing

1.7 Negotiation of Electric Service Agreements (ESAs), without price terms, with qualified, interested suppliers

1.8 ESAs reviewed by Mayor and City Solicitor

1.9 ESAs approved by City Council

1.10 Aggregation Plan and ESAs submitted to DTE for approval

1.11 After DTE approval, selection of date to receive price terms from qualified suppliers

1.12 Selection of supplier by Mayor and ratification by City Council

1.13 The City of Marlborough shall approve the final supply contract (final signing of ESA by Mayor)

1.14 Notification of Eligible Consumers of automatic enrollment

1.15 Opt-out period begins 30 days prior to first day of service

1.16 Administrative transfer of Participating Consumers to new supplier(s)

1.17 File contract and report with state (DTE, DOER, Inspector General) within 15 days of signing contract.

In addition to this process, municipal aggregators must comply with open meeting laws, ethical rules, and certain public bidding and information requirements.

## 2.0 THE ORGANIZATIONAL STRUCTURE AND OPERATIONS OF MARLBOROUGH'S AGGREGATION PROGRAM

This section will detail how the City will organize the daily operations of the Plan and assign responsibility to each party.

The City of Marlborough uses a Plan B charter. The Mayor is the Chief Executive Officer of the City. Elected every two years, the Mayor is responsible for overseeing all city departments. The Marlborough City Council is comprised of 11 councilors (four Councilors-at-large elected city-wide, and seven Ward Councilors). Each Ward Councilor is elected by the voters in his or her particular Ward. City Councilors serve a two-year term of office, co-terminus with the Mayor.

Under Marlborough's Plan B Charter, the City Council serves as the Legislative branch. It is responsible for enacting laws, reviewing the annual operating budget, confirming mayoral appointments, and providing the necessary balance to the actions of the Executive branch of government.

Jointly, the Mayor and the City Council are responsible for establishment of the policies and development of the Aggregation. The operational role of the City and its agent in relation to consumers is outlined and described in the following pages.

There are six operational levels to the City's Community Choice Power Supply Program as described in section 2.1.

# City of Marlborough Aggregation Plan Operational Outline

#### 2.1 Description of Operational Levels

Level One: Consumers

Citizens and Marlborough consumers hold the ultimate authority over the aggregation and its functions. They can elect candidates for Mayor and City Council who may take positions regarding the aggregation. They can express their views to their local Ward Councilor. They can participate in local and regional meetings and hearings regarding issues related to restructuring in general and the aggregation of Marlborough in particular. And they can attend meetings to express their views. (Also see Consumer buying power at Level Six below.)

Level Two: City Council

Based upon its existing authority, or authority provided by voters at city elections, the City Council may act on program and policy issues and contract recommendations. In addition, it may provide instructions to the city's agent regarding specific policy or program decisions to be made under the aggregation plan. It may also raise issues directed to it by consumers for the City to address.

Level Three: Mayor's Office

The Mayor carries out the collective decisions and instructions of the City Council and consumers.

Level Four: Colonial Power Group, Inc. (CPG)

As the agent for the City, CPG provides the day-to-day management and supervision of the business affairs of the aggregation under a Contract Agreement. CPG serves as the City's procurement agent, utilizing its existing staff to solicit services as requested by the City. In addition, CPG provides office and meeting space and administrative support to coordinate the aggregation's operations. This administrative support includes: 1) communications; 2) program development; 3) record-keeping; 4) oversight of program administrators and professional consultants who assist in service procurement and contract oversight and maintenance.

Level Five: Service Suppliers

Power suppliers contract with Marlborough through its Mayor and City Council. The power supply program is negotiated, recommended, and monitored for compliance by CPG. No power supply contract is binding until approved by the Mayor and City Council.

Level Six: Consumers

Every Eligible Consumer in Marlborough may participate in the City's aggregation program. All Eligible Consumers will also have the ability to decline supply service through the Competitive Supplier and choose any other power supply option they wish. Consumers who are dissatisfied with services provided under contracts negotiated by the City may also communicate directly with the Supplier or CPG in an effort to alter or otherwise improve service. Consumers may also bring issues before the City Council. (See Level One above.)

#### 2.2 Program Operations

The plan's operations are guided by the provisions and goals contained in City Council Order Nos. 02-04-9735B and 05-100904, and the instructions and decisions of the Mayor's office, CPG, and consumers.

The goals of this aggregation plan are:

1) To provide the basis for aggregation of consumers on a non-discriminatory basis;

2) To provide stability for the market rate for electricity supply;

3) To acquire the best market rate for electricity supply and transparent pricing;

4) To provide equal sharing of economic savings based on current electric rates and/or cost-of-service rate-making approved by the Department of Telecommunications and Energy;

5) To provide and enhance consumer protection and options for service under contract provisions and to allow those consumers who choose not to participate to opt-out;

6) To encourage environmental protection through contract provisions;

7) To provide full public accountability to consumers; and

8) To utilize municipal and other powers and authorities that constitute basic consumer protection to achieve these goals.

#### 2.3 Programs of the Plan

The City offers one program to achieve its goals: the City of Marlborough Community Choice Power Supply Program. In addition, the Plan provides professional representation on behalf of consumers in state proceedings and in regional or local forums to protect consumer interests in an evolving marketplace.

#### 2.3.1 City of Marlborough Community Choice Power Supply Program

The Community Choice Power Supply Program is designed to stabilize and/or reduce the amount consumers pay for electric energy, and to gain other favorable economic and noneconomic terms in service contracts. The City does not buy and resell power, but represents consumer interests to set the terms for service. Through a competitive bid and negotiation process, the City develops a contract with a power supplier for firm, all-requirements service. The contract runs for a fixed term. The process of supply contract approval contains checks and balances. Once the contract has been negotiated by the City's agent, it must be submitted to the City Council and Mayor for approval. It must also be submitted to the Massachusetts Department of Telecommunications and Energy for approval. And lastly, individual consumers may opt out of the program, and select Basic Service from National Grid or supply from any other supplier they wish at anytime before or following their enrollment in the City's Community Choice Power Supply Program (See section 4.1.7 for more detailed information on the opt-out process.) No individual consumer is required to receive service under the City's contract.

#### 2.3.2 Professional Representation

As the electric industry continues in its transition, it is essential for Marlborough consumers to have technical and legal support to represent their interests in selected state proceedings, and in negotiations with Competitive Suppliers.

#### 2.4 Staffing and Manpower for Programs

The operations necessary to plan, deliver, and manage the City's program include: 1) technical analysis; 2) competitive procurement of services; 3) regulatory approvals; 4) accounting and fiscal management; 5) contract maintenance; 6) communications; 7) program coordination, and; 8) administrative support for the Community Choice Power Supply Program. The City intends to utilize CPG as the professional, technical, and legal consultants to operate the program. At no cost to the City, CPG will be responsible for monitoring all aspects of the aggregation plan and any resulting contractual agreements, including but not limited to monitoring and reporting on compliance with all contract terms and conditions; resolution of contract issues; implementation of the "opt-out" process for customers; participation in negotiations with the distribution company serving the City as it relates to the implementation of the Aggregation Plan; preparation of reports on the Aggregation Plan, as directed; and routine updates and attendance at meetings with the Mayor and City Council.

The Community Choice Power Supply Program has been developed on behalf of the City by CPG with the support of technical consultants and legal counsel. Once a contract for power supply has been secured by CPG, CPG will use technical consultants and legal counsel to administer the Community Choice Power Supply Program at no cost to the City.

At no cost to the City, CPG will use technical and legal advisers to undertake negotiations with Competitive Suppliers and provide representation at the state level as needed, at the direction of the Mayor and City Council. The terms and conditions of any contract for power supply are subject to review by the City Solicitor, as well as by any outside legal counsel which may be selected by the City, and are further subject to the City Solicitor's approval as to legal form.

#### **3.0 PROGRAM FUNDING**

Initial funding for City's Community Choice Power Supply Program comes from private capital supplied by Colonial Power Group, Inc (CPG). The Electric Supply Agreement with a Competitive Supplier will include a maximum of \$0.001/kWh adder that will be paid by the Competitive Supplier to CPG. The \$0.001/kWh maximum adder will fund the on-going costs of the Community Choice Power Supply Program. The start-up costs, to be borne by CPG, include costs for legal representation, public education, communications, and mailing costs.

## 4.0 ACTIVATION AND TERMINATION OF THE POWER SUPPLY PROGRAM

#### 4.1 Activation of the Community Choice Power Supply Program

Following the process of aggregation and competitive procurement of a proposed contract by the City of Marlborough, activation of the Community Choice Power Supply Program requires six steps:

1) Acceptance of the supply contract by the City Council and Mayor of Marlborough pending DTE approval.

2) DTE approval of the supply contract and plan.

3) City of Marlborough approval of the final supply contract (final signing of ESA by Mayor).

4) Notification of Eligible Consumers of pending automatic enrollment in the Community Choice Power Supply Program.

5) Automatic enrollment of all Eligible Consumers (excluding those who opt out prior to service start-up deadlines), and voluntary enrollment of those receiving competitive supply from another provider that they wish to terminate.

6) Activation of Participating Consumers' service on billing cycle dates.

Each of these steps is described below:

#### 4.1.1 Acceptance of the Contract By City Council and Mayor

All power supply contracts negotiated by the City shall be expressly conditioned upon the acceptance of the contract by the City Council and Mayor and approval of the Department of Telecommunications and Energy. Suppliers and power supply contracts must comply with all applicable laws and rules and regulations promulgated by the Department of Telecommunications and Energy concerning competitive suppliers. A final signing of the contract by the Mayor will be delayed until approval of the contract is provided by the Department of Telecommunications and Energy.

#### 4.1.2 DTE Approval of Power Supply Contract and Plan

The City shall file its certificate of vote, the contract and aggregation plan with the Department of Telecommunications and Energy. The DTE is required to hold a public hearing on the plan.

#### 4.1.3 Signing of Power Supply Contract by the City Council and Mayor

Following the approval of the Department of Telecommunications and Energy, the City Council and Mayor may sign or reject the contract. With the signing of the contract by the City Council and Mayor, the terms and conditions in the contract will be utilized for service for Eligible Consumers within the municipal boundaries of Marlborough, except for those consumers who have selected a competitive supplier prior to the contract activation date and do not wish to switch to service under the City's contract, or those consumers who affirmatively opt out of the program. In addition, all Eligible Consumers relocating to the area will be enrolled in the City's Community Choice Power Supply Program one month after their delivery account is set up with National Grid, unless they choose another supplier, or opt-out following activation of service.

The City shall file with the DTE, DOER, and Inspector General, within 15 days of signing by the City Council and Mayor, the signed power supply contract and a report detailing the process used to execute the contract.

#### 4.1.4 Notification of Consumers

Following approval of the contract by the DTE, the Supplier shall undertake notification of all Eligible Consumers on Basic Service to be enrolled prior to enrollment. The City may also generally notify all consumers receiving competitive service in Marlborough of their eligibility to receive power from the City's supplier. The process of Notification shall be multi-layered: 1) a mailing to be mailed by the Supplier; 2) newspaper notices; 3) public service announcements; 4) posting of notices in City Hall. National Grid reserves the right to include bill messages pertaining to the Community Choice Power Supply Program. All notification expenses shall be borne by the Supplier.

Prior to enrollment, this notification shall: 1) inform consumers they have the right to opt out of the aggregated entity without penalty and choose Basic Service at any time before or after their first day of service; 2) prominently state all charges to be made and a comparison of the price and primary terms of the City's contract compared to the price and terms of National Grid's Basic Service; 3) explain how to opt out; 4) provide written notification if any charges associated with the opt-out will be made by the Supplier.

#### 4.1.5 Notification of National Grid

Along with notification of Eligible Consumers in the City of Marlborough, the City shall notify the selected Supplier and National Grid to begin preparation of the administrative process to transfer Eligible Consumers coincident with each customer's billing cycle. Alternatively, or in combination with the City notification, the selected Supplier may notify National Grid to begin preparation of the administrative process.

#### 4.1.6 Activation of Customer Service

The process of activation is an administrative function with three parts: 1) Data preparation: National Grid will identify all customers on Basic Service in Marlborough by eliminating those customers who have already selected a competitive supplier; 2) Automatic Enrollment: All verified customers shall be transferred to the City's supplier coincident with National Grid's billing periods, unless they have previously sent in notification of their intent to opt out according to established deadlines. Eligible Consumers will be enrolled with the new supplier over the period of one month. National Grid shall notify each transferred consumer of the change to the City's supplier with its last bill for Basic Service. Service under the new supplier shall begin at the start of the billing period following transfer.

#### 4.1.7 Customer Opt-Out

Eligible Consumers may opt out of service from the City's Community Choice Power Supply Program at no charge either in advance of service start up deadlines or at anytime after the first day of service. Customers who seek to return to Basic Service should provide notice to the supplier and/or National Grid five (5) or more business days before the next scheduled meter read date. Participating Residential customers will be transferred to Basic Service in two (2) business days. Participating Commercial and Industrial customers will be transferred to Basic Service after their next meter read date provided the meter read date is at least two (2) days after National Grid is notified of the transfer. There shall be no charge for returning to Basic Service in this manner. Further opportunities for customer opt-out may be negotiated by the City and the competitive power supplier and included in the terms of the contract presented to the DTE, the City Council, the Mayor, and made part of the public information offered to each consumer.

#### 4.2 Termination of the Power Supply Program

The Community Choice Power Supply program may be terminated in two ways:

1) Upon the termination or expiration of the power supply contract without any extension, renewal, or subsequent supply contract being negotiated;

2) At the decision of the City Council and Mayor to dissolve the Community Choice Power Supply Program.

Each individual customer receiving power supply service under the City's Community Choice Power Supply Program will receive notification of termination of the program ninety (90) days prior to such termination.

In the event of contract termination, consumers would return to National Grid's Basic Service or choose a competitive supplier.

#### 5.0 METHODS FOR ENTERING AND TERMINATING AGREEMENTS WITH OTHER ENTITIES

The City's process for entering, modifying, enforcing, and terminating all agreements associated with the aggregation shall comply with the requirements of the City's charter, and state and federal laws. Where required, the procedures outlined in MGL Chapter 30B shall be followed. Other agreements shall be entered, modified, or terminated in compliance with the law and according to the express provisions of the relevant agreement.

#### 6.0 RATE-SETTING AND OTHER COSTS TO PARTICIPANTS

The City of Marlborough will offer the Community Choice Power Supply Program at rates and terms to be negotiated with competitive power suppliers. All supplier charges to the customer will be fully and prominently disclosed under the notification process.

National Grid shall continue to provide metering, billing, and maintenance of the distribution system as a regulated monopoly function until such time as the Massachusetts Department of Telecommunications and Energy (DTE) determines it is in the interest of consumers for these services to be provided differently. Charges for metering, billing and other distribution services shall be regulated by the DTE, unless otherwise provided for in law, or DTE rules and regulations.

#### 6.1 Rates and Rate-setting

Under DTE orders, the local distribution company assigns the customer classification and corresponding character of service and associated regulated rates. These rates include a monthly customer charge, a distribution charge, a transmission charge, a transition charge, an energy conservation charge, and a renewable energy charge that currently

make up a portion of a customer bill. (See sample bill in section 6.3 below.) Although the City, or its agent, shall participate in regulatory proceedings and represent the interests of consumers regarding these regulated rates, it will not assign or alter existing customer classifications without the approval of the DTE.

The focus of the City, as noted above, will be acquisition of competitive prices and terms for power supply. This price, or prices, will be set through the competitive bid and negotiation process, and will be noted on the consumer bill as the "generation charge." As noted earlier, the price in the contract will be subject to DTE examination and approval, as well as approval by the City Council and Mayor.

It is anticipated that the competitive bid process will seek prices that will differ among the customer classifications established by the local distribution company's tariffs. The terms and conditions of service may also vary among customer classifications. The City retains the right to reject some or all of the bids received for any and all customer classifications.

In order to address the concern that the extended period during which customers are allowed to opt out of the Program will increase prices to medium and large commercial and industrial ("C&I") customer classifications, the Program may solicit bids for those customer classifications that include two prices. The first may reflect the price pursuant to which medium and large C&I customers will take service while retaining their full right to opt out of the Program as provided by Massachusetts law. The second may reflect the price pursuant to which medium and large C&I customers will take service subject to a limitation of their right to leave the Program, likely in the form of a termination fee. Customers in these rate classifications may be allowed to choose between these two price options before service commences under the Program.

#### 6.2 Other Costs to Consumers

Community Choice Power Supply Program funding will be derived from a maximum of \$0.001/kWh commission fee payable by the Supplier to Colonial Power Group, Inc. Department of Telecommunications and Energy approval of such a charge would be sought to the extent that such approval is required.

#### 6.3 Customer Billing

Customer billings under the City's Community Choice Power Supply Program will be made by the Supplier under contract and shall be incorporated into the standard monthly utility billing. The bill shall include a clear delineation of all regulated and non-regulated charges. Participating Consumers will receive a "complete bill" that incorporates the power supply charge and National Grid's charges on a single sheet.

<b>Delivery Services</b>					
Customer Charge					\$ 6.01
Distribution Charge	\$.02484	Х	500	KWH	\$12.42
Transition Charge	\$.00536	Х	500	KWH	\$ 2.68
Transmission Charge	\$.00999	Х	500	KWH	\$ 5.00
Energy Conservation	\$.00250	Х	500	KWH	\$ 1.25
<b>Renewable Energy</b>	\$.00050	Х	500	KWH	\$.25
Total Delivery Services					\$27.61
Total Delivery Services <u>Supplier Services</u>					\$27.61
Total Delivery Services <u>Supplier Services</u> Generation Charge					\$27.61
Total Delivery Services	\$.09693	Х	500	KWH	<b>\$27.61</b> \$48.47
Total Delivery ServicesSupplier ServicesGeneration ChargeBasic Service-FixedTotal Cost of Electricity	\$.09693	Х	500	KWH	<b>\$27.61</b> \$48.47 <b>\$48.47</b>
Total Delivery Services <u>Supplier Services</u> Generation Charge Basic Service-Fixed Total Cost of Electricity	\$.09693	Х	500	KWH	<b>\$27.61</b> \$48.47 <b>\$48.47</b>

The typical residential "complete bill" for use of 500 kilowatt hours shows the following charges for National Grid's Basic Service in June 2006:

#### 7.0 UNIVERSAL ACCESS

"Universal access" is a term derived from the traditional regulated utility environment in which all customers desiring service receive that service. The Commonwealth of Massachusetts Division of Energy Resources "Guide to Municipal Electric Aggregation in Massachusetts" has defined universal access to mean "electric services sufficient for basic needs (an evolving bundle of basic services) available to virtually all members of the population regardless of income." The Guide also provides that a municipal aggregation plan meets the requirement of universal access "by giving all consumers within its boundaries the opportunity to participate, whether they are currently on . . . Default Service or the supply service of a Competitive Supplier." For the purposes of the City's Community Choice Power Supply Program this will mean that all existing Eligible Consumers in Marlborough shall be eligible for service from the contracted supplier under the terms and conditions of the supply contract. Item one of the City's goals as indicated in 2.2 above is: "To provide the basis for aggregation of consumers on a non-discriminatory basis."

Service under the City's Community Choice Power Supply Program shall include customer classes in adherence with universal service principles and requirements, and the traditional non-discriminatory practices of local government. Contracts with all suppliers shall contain provisions to maintain these principles and equitable treatment of all customer classes.

Existing Eligible Consumers in the City of Marlborough shall be transferred to the Marlborough Community Choice Power Supply Program unless they have already contracted with a Competitive Supplier, or affirmatively opt out of the program.

Low-income consumers shall remain subject to all existing provisions of state law regarding their rights to return to Basic Service and participate in the Community Choice Power Supply Program as well.

New Eligible Consumers in the service territory shall be automatically enrolled in the program one month after establishing delivery service with National Grid. New customers will retain the right to opt out anytime after the commencement of Community Choice Power Supply Program service.

#### 8.0 EQUITABLE TREATMENT OF ALL CLASSES OF CUSTOMERS

All customers will be treated equitably. They will be guaranteed the right to raise and resolve disputes with the Supplier; be provided all required notices and information; and always retain the right to opt out of the City's Community Choice Power Supply Program as described herein or to switch suppliers. The requirement of equitable treatment of all customers does not, however, require that all customer rate classes be offered the same pricing or terms and conditions. To impose such an interpretation to the statutory requirements governing municipal aggregation programs would, in effect, result in

inequitable treatment, as attempting to apply identical prices, terms, and conditions to customer rate classes with widely disparate characteristics would have the inevitable effect of giving some customer rate classes more favorable service than others. The implementation of the Community Choice Power Supply Program will recognize this reality through appropriate distinctions in pricing and, where applicable, terms and conditions among customer rate classes.

#### 9.0 RELIABILITY

"Reliability" in power supply and in transmission and distribution is essential to consumers. This will be accomplished and reinforced by the Community Choice Power Supply Program at several levels: 1) through provisions of the power supply contract that will include language on reliability of supply, liability and damages provisions; 2) through traditional proceedings related to National Grid's regulated transmission and distribution services; 3) through direct discussions with National Grid concerning specific or general problems related to quality and reliability of transmission and distribution service.

### 10.0 RIGHTS AND RESPONSIBILITIES OF POWER SUPPLY PROGRAM PARTICIPANTS

#### 10.1 Rights

All Community Choice Power Supply Program participants shall enjoy the protections of law afforded to consumer as they currently exist or as they may be amended from time to time. These include rights to question billings or service quality or service practices. Under protocols developed by the Department of Telecommunications and Energy, problems related to billing or service shall be directed to the appropriate parties. All program participants shall also enjoy the individual right to decline participation in the City's Community Choice Power Supply Program as noted in the description of the "opt-out" in section 4.1.7 above.

#### **10.2 Responsibilities**

All Community Choice Power Supply Program participants shall meet all standards and responsibilities required by the DTE, including payment of billings and access to essential metering and other equipment to carry out utility operations.

#### **11.0 THE CONSEQUENCES OF AGGREGATION**

Municipal aggregation functions under the restrictions of state law and carries a range of results and consequences:

#### 11.1 Consumer Option to Participate in Competitive Market

Many individual consumers lack knowledge and leverage to negotiate terms for power supply. A municipal aggregator provides them with an option for professional representation and the leverage of a large group so that they may participate more effectively in the competitive process and achieve benefits.

#### 11.2 Consumer Ability to Opt Out and Choose Another Supplier

Because the law guarantees the right to opt out, including the right to choose Basic Service at no charge, all Eligible Consumers have the right to select a supplier other than the one chosen by the Mayor and City Council.

#### 11.3 Indemnification of Consumers and Risk Associated with Competitive Market

In a competitive market it is possible that the failure of a power supplier to provide supply service may result in the need for consumers to acquire alternative power supply, or for consumers to receive power at Basic Service prices. The City will seek to minimize this risk by recommending only reputable suppliers who demonstrate reliable service. The City also intends to include conditions in its contract with a supplier that will indemnify consumers against risks or problems with power supply service.

#### **11.4 Other Consumer Protections**

The City intends to negotiate a range of provisions in its contracts to enhance consumer protection. The City also intends to work with National Grid and the DTE to assure improvement in the reliability of transmission and distribution services.

## 12.0 REQUIREMENTS ESTABLISHED BY LAW OR THE DEPARTMENT CONCERNING AGGREGATED SERVICE

The City fully intends to comply with the requirements of law and the rules of the DTE.

#### **COMPETITIVE ELECTRIC SUPPLY AGREEMENT**

WHEREAS, the Massachusetts Legislature has adopted Chapter 164 of the Acts of 1997, (the "Restructuring Act"), which, *inter alia*, (1) allows for competition in the generation and supply of electricity to customers, (2) authorizes municipalities to aggregate the electrical load of electricity consumers within their boundaries, and (3) allows municipal aggregators to formulate an aggregation plan and conduct aggregation programs;

WHEREAS, all of the municipalities in Barnstable County and Dukes County have formed the Cape Light Compact ("Compact") and entered into an "Inter-Governmental Agreement of the Cape Light Compact" ("Compact Agreement"), for the purposes, *inter alia*, of acting as a municipal aggregator and negotiating the best rates for the supply of electricity to consumers located on Cape Cod and Martha's Vineyard;

WHEREAS, all twenty-one Barnstable County and Dukes County towns and the two counties presently belong to the Compact (the "Member Municipalities");

WHEREAS, Consolidated Edison *Solutions*, Inc., a New York corporation duly authorized to conduct business in the Commonwealth of Massachusetts ("Supplier"), desires to continue to provide All-Requirements Power Supply to the Compact's Member Municipalities and to Consumers residing within the Member Municipalities under the Aggregation Plan, pursuant to the terms and conditions of this Agreement;

WHEREAS, Consolidated Edison Solutions, Inc. has been chosen by the Compact from among several competitive suppliers to be the Compact's Supplier for the Term set forth in this Agreement; and

WHEREAS, the Compact desires that Supplier provide competitive retail power supply to the Member Municipalities and Consumers.

NOW THEREFORE, IT IS AGREED THAT, the Compact and Supplier hereby enter into this Competitive Electric Supply Agreement ("Agreement") subject to the terms and conditions below.

#### ARTICLE 1 DEFINITIONS

A.,

1

When used in this Agreement, the following terms shall have the meanings given, unless a different meaning is expressed or clearly indicated by the context. Words defined in this Article 1 which are capitalized shall be given their common and ordinary meanings when they appear without capitalization in the text. Words not defined herein shall be given their common and ordinary meanings.

1.1 Aggregation Plan - The "Cape Light Compact Aggregation Plan" as adopted or amended by the Compact, from time to time.

1.2 Aggregation Program - The Community Choice Power Supply Program, implemented under the Aggregation Plan.

1.3 Agreement - This Competitive Electric Supply Agreement.

1.4 All-Requirements Power Supply - Service under which Supplier provides all of the electrical energy, capacity, reserves, ancillary services, transmission service, transmission and distribution losses, congestion management, and such other services or products necessary for firm power supply to Consumers at the Point of Sale.

Bankruptcy - Bankruptcy means with respect to a Party that such Party (i) ceases doing 1.5 business as a going concern, generally does not pay its debts as they become due or admits in writing its inability to pay its debts as they become due, files a voluntary petition in bankruptcy or is adjudicated bankrupt or insolvent, or files any petition or answer seeking any reorganization, arrangement, composition, readjustment, liquidation, dissolution or similar relief under the present or any future federal bankruptcy code or any other present or future applicable federal, state or other Governmental Rule, or seeks or consents to or acquiesces in the appointment of any trustee, receiver, custodian or liquidator of said Party or of all or any substantial part of its properties, or makes an assignment for the benefit of creditors, or said Party takes any action to authorize or that is in contemplation of the actions set forth in this clause (i); or (ii) a proceeding is initiated against the Party seeking any reorganization, arrangement, composition, readjustment, liquidation, dissolution or similar relief under the present or any future federal bankruptcy code or any other Governmental Rule and, such proceeding is not dismissed within ninety (90) days after the commencement, or any trustee, receiver, custodian or liquidator of said Party or of all or any substantial part of its properties is appointed without the consent or acquiescence of said Party, and such appointment is not vacated or stayed on appeal or otherwise within ninety (90) days after the appointment, or, within ninety (90) days after the expiration of any such stay, has not been vacated, provided that, notwithstanding the foregoing, the exercise of rights to take over operation of a Party's assets, or to foreclose on any of a Party's assets, by a secured creditor of such Party (including the appointment of a receiver or other representative in connection with the exercise of such rights) shall not constitute a Bankruptcy.

1.6 **Basic/Default Service** - Service provided by a distribution company to a customer who is not receiving generation service from a competitive supplier or any successor service as determined by the DTE.

1.7 **Cape Light Compact Green<sup>sm -</sup>** a Compact program whereby Consumers will have the option to pay a premium, in excess of their standard electricity charges, for certificates representing attributes of energy derived from new renewable energy resources.

1.8 **Commercially Reasonable** - Any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known, or which in the exercise of due diligence, should have been known, at the time the decision was made, would have been expected in the industry to accomplish the desired result consistent with reliability, safety, expedition, project economics and applicable law and regulations.

1.9 **Compact** - The Cape Light Compact, formed in October 1997, by an intergovernmental agreement under the Massachusetts General Laws and presently consisting of twenty-one (21) towns in Barnstable and Duke Counties and the two counties themselves for which the Compact acts as agent.

1.10 **Compact Agreement** - The Inter-Governmental Agreement of the Cape Light Compact, as in effect on July 31, 1998 and as may be amended from time to time.

1.11 **Consumers -** A residential, commercial, industrial, municipal, or other consumer of electricity who receives electric supply service through the Distribution Company's distribution or transmission service from any supplier, at one or more locations within the geographic boundaries of a Member Municipality.

1.12 **Counties** - Barnstable County and the County of Dukes County. In the singular, "County" shall refer to either of the two Counties.

1.13 **Distribution Company** - The Commonwealth Electric Company (d/b/a NSTAR Electric), or any successor company(ies) or entity(ies) providing electricity distribution services in each Member Municipality.

1.14 **DTE** - The Massachusetts Department of Telecommunications and Energy, or any successor state agency.

1.15 Effective Date - The effective date of this Agreement, pursuant to Article 4 (Term of Contract and Termination) below.

1.16 Force Majeure - Any cause not within the reasonable control of the affected Party which precludes that Party from carrying out, in whole or in part, its obligations under this Agreement, including, but not limited to, Acts of God; winds; hurricanes; tornadoes; fires; epidemics; landslides; earthquakes; floods; other natural catastrophes; strikes; lock-outs or other industrial disturbances; acts of public enemies; acts, failures to act or orders of any kind of any Governmental Authority acting in its regulatory or judicial capacity, provided, however, that any such discretionary acts, failures to act or orders of any kind by the Compact or a Member Municipality may not be asserted as an event of *Force Majeure* by the Compact or a Member Municipality as the case may be; insurrections; military action; war, whether or not it is declared; sabotage; riots; civil disturbances or explosions. Nothing in this provision is intended to excuse any Party from performing due to any governmental act, failure to act, or order, where it was reasonably within such Party's power to prevent such act, failure to act, or order. Economic hardship of either Party shall not constitute an event of *Force Majeure*.

1.17 **General Communications** - The type of communications described and defined in Article 5.7 (General Communications) herein.

1.18 **Governmental Authority** - Any national, state or local government, independent system operator, regional transmission owner or operator, any political subdivision thereof or any other governmental, judicial, regulatory, public or statutory instrumentality, authority, body, agency, department, bureau, or entity, excluding the Compact and all Member Municipalities.

1.19 **Governmental Rule** - Any law, rule, regulation, ordinance, order, code, permit, interpretation, judgment, decree, or similar form of decision of any Governmental Authority having the effect and force of law.

1.20 **Green Power** - Electric energy generated by equipment or facilities including solar power, biomass, landfill gas, wind turbine, hydro power or other renewable energy generating resource or technology, as may defined by G.L. c. 25A, §11F or G.L. c. 164, §1, or, that may be otherwise added by mutual agreement of the Parties.

1.21 **ISO** - The New England Independent System Operator, or such successor or other entity which oversees the integrated dispatch of power plants in New England and the bulk transmission of electricity throughout the New England power grid.

1.22 kWh, kW - Kilowatt-hour and kilowatts, respectively.

1.23 Member Municipalities - The twenty-one (21) towns and two (2) Counties which are presently members of the Cape Light Compact as of the Effective Date of this Agreement. The Member Municipalities include the following towns in Barnstable County: Barnstable, Bourne, Brewster, Chatham, Dennis, Eastham, Falmouth, Harwich, Mashpee, Orleans, Provincetown, Sandwich, Truro, Wellfleet and Yarmouth, and the following towns in Dukes County: Aquinnah, Chilmark, Edgartown, Oak Bluffs, Tisbury and West Tisbury. The Compact acts as agent for the Member Municipalities as set forth in Article 2.2 (Agency Relationship) below.

1.24 NEPOOL - The New England Power Pool.

1.25 **Parties** - The Compact and Supplier, as the context requires. In the singular, "Party" shall refer to either of the preceding.

1.26 **Point of Delivery** - The point of interconnection between NEPOOL Pool Transmission Facilities and the transmission facilities of the Distribution Company.

1.27 **Point of Sale** - The electric meter(s) for each Consumer's account, as designated by the Distribution Company.

1.28 **Related Documents -** The Compact Agreement, the Aggregation Plan, and the Administrative Services Agreement between Barnstable County and the Compact.

1.29 Reserve Fund - The fund described in Article 15.3 (Reserve Fund) of this Agreement.

1.30 Restructuring Act - Chapter 164 of the Massachusetts Acts of 1997.

1.31 **Supplier** – Consolidated Edison *Solutions*, Inc., a New York corporation duly authorized to conduct business in the Commonwealth of Massachusetts.

#### ARTICLE 2 RIGHTS GRANTED

2.1 General Description and Limitations - Supplier is hereby granted the exclusive right to provide All-Requirements Power Supply to Consumers pursuant to the terms and conditions set forth in this Agreement. Supplier is hereby granted the right to provide All-Requirements Power Supply to Consumers pursuant to the terms of the Compact's Aggregation Plan and Aggregation Program, and expressly conditioned on the terms and conditions set forth in this Agreement. In accepting this grant, the Parties recognize that Supplier is only authorized to supply All-Requirements Power Supply to Consumers, and that the Distribution Company presently has the right and obligation to distribute and deliver electricity to individual customers, until changes in law, regulation or policy may allow otherwise. Supplier further recognizes i) that it is only authorized by this Agreement to supply All-Requirements Power Supply to Consumers in the Member Municipalities; and ii) that this Agreement does not guarantee that any individual Consumer will be served by Supplier, except that the Compact agrees that, for Consumers for which the Compact has legal authority to choose a source of electricity supply (such as town buildings and facilities owned or operated by Member Municipalities or other municipal agencies, where applicable), it will maintain Supplier as its provider of electricity supply beginning on the Effective Date for the remaining term of this Agreement, subject to any existing obligation under contract. As between the Parties, Supplier has the sole obligation of making appropriate arrangements with the Distribution Company, and any arrangements which may be necessary with the ISO so that Consumers receive the electricity supplies to be delivered pursuant to this Agreement. The Compact specifically authorizes the Distribution Company to provide, and Supplier the right to obtain and utilize as required, all billing and energy consumption information for Member Municipalities' accounts that are reasonably available from the Distribution Company. If further action is required by the Distribution Company to authorize Supplier to receive such historical energy consumption and billing data, the Compact agrees to use reasonable efforts, at Supplier's cost, to assist Supplier, if so requested by it, in obtaining such information; and with respect to Consumers, including, without limitation, assisting Supplier, at Supplier's cost, in obtaining permission from such Consumers and/or the DTE, where necessary as a prerequisite to the provision of such information.

Notwithstanding the foregoing paragraph or anything else in this Agreement to the contrary, the Member Municipalities may construct, directly or in jointly with others, Green Power projects located within their boundaries.

2.2 Agency Relationship - The Compact is authorized to act on behalf of the Member Municipalities in contracting for electric supply for such Member Municipalities. In any litigation arising under this Agreement, both the Compact and one or more Member Municipalities (acting individually or jointly) have the right to bring claims against Supplier. 2.3 **Compliance with Laws** - By entering into this Agreement, Supplier specifically represents that it has exercised due diligence to review and has fully complied with all relevant regulations and orders of the Federal Energy Regulatory Commission, the DTE, the Attorney General of the Commonwealth, and the Massachusetts Division of Energy Resources and any other Governmental Authority having jurisdiction over any element of the transactions contemplated by this Agreement.

2.4 **Further Conditions and Limitations -** The Compact and the Member Municipalities expressly reserve the right to adopt such local bylaws, ordinances, rules, regulations and policies as they may deem necessary in the exercise of their governmental powers, and nothing in this Agreement shall be interpreted as limiting the governmental powers of the Compact or of the Member Municipalities as may be granted by law.

#### 2.5 Conditions Precedent -

The obligations of the Compact under this Agreement shall be conditioned upon Supplier fulfilling the following requirements:

(i) maintaining its Competitive Supplier license from the DTE (as such term is defined in the Distribution's Company's Terms and Conditions - Competitive Suppliers);

(ii) executing a Competitive Electric Supplier Service Agreement with the Distribution Company in a form reasonably satisfactory to Supplier;

- (iii) executing any appropriate ISO applications and agreements;
- (iv) obtaining authorization from the FERC to sell power at market-based rates.

If Supplier has not fulfilled all such requirements by the date of this Agreement, any Party may terminate this Agreement without any liability to the other Parties.

2.6 **Ownership and Use of Consumer Data** - Supplier acknowledges that the Compact shall have exclusive ownership of all right, title and interest in and to all Consumer data (including addresses, telephone numbers or other identifying information) made available to Supplier as a result of execution of this Agreement. Supplier shall use Consumer data solely to provide All-Requirements Power Supply to Consumers and to render other services expressly required or permitted under this Agreement. Any other use of Consumer data without the prior written consent of the Compact is strictly prohibited. Except as expressly provided in this Agreement, Supplier shall not disclose any Consumer data from access by, or beneficial use, for any third-party. To the extent that the provision of All-Requirements Power Supply or other services under this Agreement requires that Supplier have access to or make use of any Consumer data, Supplier shall treat such Consumer data as confidential information. Supplier may use Consumer data to engage in direct marketing only during the term of this Agreement and subject to the terms forth in Article 17.2 (Direct Marketing). A violation of this Article 2.6 shall be grounds

for termination under Article 4.2(1). Supplier agrees violation of this Article 2.6 shall constitute irreparable harm.

#### ARTICLE 3 CUSTOMER CHOICE NOTIFICATION OF RIGHTS; ENROLLMENT

3.1 **Customer Choice** - The Parties acknowledge and agree that, subject to existing Agreements, all Consumers have the right, pursuant to the Restructuring Act, to change their source of electricity supply, as set forth in Article 2.1 (General Description and Limitations) of this Agreement. The Member Municipalities, the Compact, or Consumers, as the case may be, shall give reasonable notice of any such changes in accordance with any terms formulated by the DTE or as included in Exhibit A and the Aggregation Plan. The Parties represent and warrant to each other that they shall not unreasonably interfere with the right of Consumers to opt out, and shall comply with any rules, regulations or policies of the DTE or other lawful authority regarding the process of opting out or of switching from one source of electric supply to another; provided, however, that the Compact agrees that the Member Municipalities will not switch their source of generation supply from Supplier during the term of this Agreement, for uses over which they exercise legal control.

3.2 Notification of Rights - Consistent with the requirements of law, the Compact, with the assistance of Supplier shall notify all Consumers in the Member Municipalities of the date upon which they will be automatically enrolled in the Aggregation Program, and that Supplier will be providing electrical supply to Consumers subject to the opt-out provisions of the Restructuring Act, the Aggregation Plan and Aggregation Program, and Exhibit A. The Compact, in its discretion as to form and content shall: (1) prominently state all charges to be made by Supplier; (2) provide a summary of the prices and terms included in Exhibit A as well as fully disclose the prices and terms then being offered for Basic/Default Service or any equivalent service by the Distribution Company; and (3) state how the Consumer may gain access to Basic/Default Service and that any ratepayer choosing to opt-out after automatic enrollment may do so without penalty and be entitled to return to Basic/Default Service. All such notices must be approved in advance by Supplier, such approval not to be unreasonably withheld.

3.3 **Enrollment** - All Consumers currently receiving All-Requirements Power Supply from Supplier will continue to be enrolled in the Aggregation Program under the terms of Exhibit A unless and until such Consumers opt-out.

Any Consumer which is new to the Member Municipalities' respective territories will be automatically enrolled by Supplier in the Aggregation Program. This enrollment shall be administratively arranged by Supplier and the Distribution Company with the cooperation and reasonable support from the Compact by identifying all new Basic/Default Service Consumers within the Member Municipalities and verifying any required meter and customer codes. The Parties shall work together with the Distribution Company to develop procedures with the objective of automatically enrolling Consumers at the close of the monthly billing cycle in the month of introduction of their respective customer group(s), according to the schedule in Exhibit A, and whereby new Consumers will be added to and Consumers who opt out dropped from the Aggregation Program.

At any time during the term of this Agreement, Consumers who have previously opted out may return to supply by the Supplier at the Supplier's discretion at a price determined by the then prevailing market conditions. Consumers who relocate to or within the Member Municipalities shall have the right to receive electrical supply from Supplier, subject to the prices and terms in Exhibit A. Besides accurately and promptly transmitting information provided by such Consumers to the Distribution Company and following any procedural or other such steps which may be mutually agreed to, Supplier shall have no obligation to effect adds and drops at Consumer's request, such processing being the responsibility of the Distribution Company.

Consumers enrolled in competitive supply programs offered by third-parties will not be automatically enrolled as Consumers under this Agreement when such program terminates or is otherwise completed. Supplier agrees that Consumers under such third-parties competitive supply programs may affirmatively opt-in and receive All-Requirements Power Supply at the Supplier's discretion at a price determined by the then prevailing market conditions. Supplier agrees that when such third-party competitive supply programs terminate, Supplier will negotiate with the Compact in good faith to include consumers that had been enrolled in other programs as Consumers under this Agreement.

#### ARTICLE 4 TERM OF CONTRACT AND TERMINATION

4.1 **Term** - This Agreement and the rights granted under it to Supplier shall commence on December 1, 2005 (the "Effective Date") and terminate on January 31, 2007, unless the Agreement is terminated before such date under the provisions of Article 4.2 (Termination). The term of this Agreement may be extended in accordance with the provisions of Article 4.4 (Extension).

4.2 **Termination** - This Agreement may be terminated at any time upon written notice:

(1) by the Compact (acting on behalf of all Member Municipalities or acting on behalf of one or more Member Municipalities), or Supplier, if either Party fails to remedy or cure any breach or default of any material provision or condition of this Agreement (including, but not limited to, Article 9 and Article 2.6) within sixty (60) days following written notice to do so by the nonbreaching Party;

(2) by the Compact (acting on behalf of all Member Municipalities or acting on behalf of one or more Member Municipalities), or Supplier, if any material provision or condition of this Agreement be finally adjudged invalid by any court of competent jurisdiction, or if the DTE exercises any lawful jurisdiction so as to invalidate or disapprove this Agreement in whole or in significant part; or

(3) notwithstanding the foregoing, the failure of Supplier to provide or arrange for All-Requirements Power Supply to Consumers, in the absence of *Force Majeure* or the Compact failure to perform, shall constitute an act of default, and the Compact may terminate this Agreement upon the giving of written notice but without providing any cure period. In the event Supplier has performed its obligations hereunder and its failure to provide or arrange All-Requirements Power Supply is a direct result of actions or non-actions by any transmission service provider, the Distribution Company, or the ISO, Supplier's failure shall not be deemed an act of immediate default; or

(4) by the Compact, in the event that the financial sureties and guaranties provided by Supplier in connection with this Agreement are revoked, terminated or otherwise fail.

4.3 **Obligations upon Termination** - Following termination of this Agreement, the Parties shall each discharge by performance all obligations due to any other Party that arose up to the date of termination of the Agreement. Upon the effective date of termination of the Agreement, all rights and privileges granted to Supplier shall cease, with the exception of the right to collect all monies due for services rendered to that date.

4.4 **Extension** - This Agreement may be extended beyond January 31, 2007, by mutual, written agreement of the Parties. Any new pricing terms shall be added to and replace Exhibit A as Exhibit A-2. Upon any such extension, this Agreement shall continue to be in effect, and all provisions of the Agreement shall retain the same force and effect as before the extension, unless it is terminated by either Party pursuant to the provisions of Article 4.2 or until the date stated in such extension.

#### ARTICLE 5 CONTINUING COVENANTS

Supplier agrees and covenants to perform each of the following obligations during the term of this Agreement.

5.1 **Standards of Management and Operations** - In performing its obligations hereunder, during the term of this Agreement, Supplier shall exercise reasonable care to assure that its facilities are prudently and efficiently managed; that it employs an adequate number of competently trained and experienced personnel to carry out its responsibilities; that it delivers a safe and reliable supply of such amounts of electricity to the Point of Delivery as are required under this Agreement; that it complies with all relevant industry standards and practices for the generation and supply of electricity to Consumers; and that, at all times with respect to Consumers, it exercises the highest commercial standards and employs Commercially Reasonable skills, systems and methods available to it.

5.2 Local Customer Service Access - Supplier agrees to provide, or cause to be provided, certain customer services to Consumers. Such services shall be reasonably accessible to all Consumers, shall be available during normal working hours, shall allow Consumers to transact business they may have with Supplier, and shall serve as a communications liaison among Supplier, the Compact, Consumers and the Distribution Company. A toll-free telephone number will be established by and available for Consumers to contact Supplier to resolve concerns, answer questions and transact business with respect to the service received from Supplier. Such

toll-free phone line shall be attended by service personnel during regular business hours (9:00 AM - 5:00 PM) and routed to a voice message after hours. Supplier and the Compact agree to develop an augmented schedule for staffing the customer service center during periods when All-Requirements Power Supply commences to a major Consumer class under the Aggregation Program. Supplier will also provide a link on its parent's website to a website which will be available to Consumers for general information, product and service information, and other purposes.

5.3 **Responding to Requests for Information** - To the extent authorized by the Consumers and to the extent such individual permission is required by law, Supplier shall, during normal business hours, respond promptly and without charge therefore to reasonable requests of the Compact for information or explanation regarding the matters covered by this Agreement and the supply of electricity to Consumers. Supplier agrees to designate a service representative or representatives (the "Service Contacts") who shall be available for these purposes, and shall identify the office address and telephone number of such representative(s). Whenever necessary to comply with this Article 5.3, the Service Contact Person shall call upon other employees or agents of Supplier to obtain such information or explanation as may be reasonably requested. Nothing in this Article 5.3 shall be interpreted as limiting the obligation of Supplier to respond to complaints or inquiries from Consumers, or to comply with any regulation of the DTE or the Attorney General of the Commonwealth regarding customer service.

Arranging for Firm All-Requirements Power Supply - Supplier shall participate in or 5.4 make appropriate arrangements with the ISO, any relevant regional transmission organization, wholesale suppliers or any other entity to ensure an uninterrupted flow of reliable, safe, firm, All-Requirements Power Supply to the Distribution Company for delivery to Consumers, and take Commercially Reasonable steps to cooperate with the NEPOOL, the ISO or any other entity to ensure a source of back-up power in the event that the facilities owned or controlled by Supplier's affiliates or other sources of power supply are unable to generate and/or deliver All-Requirements Power Supply to the Point of Delivery. In the event Supplier is unable to deliver sufficient electricity to the grid to serve Consumers, Supplier shall utilize such arrangements as may be necessary to continue to serve Consumers under the terms of this Agreement, and shall bear any costs it may incur in carrying out these obligations. Supplier shall not be responsible to the Compact in the event the Distribution Company disconnects, curtails or reduces service to Consumers (notwithstanding whether such disconnection is directed by the ISO) in order to facilitate construction, installation, maintenance, repair, replacement or inspection of any of the Distribution Company's facilities, to maintain the safety and reliability of the Distribution Company's electrical system, or due to any other reason, including emergencies, forced outages, potential overloading of the Distribution Company's transmission and/or distribution circuits, Force Majeure or the non-payment of any distribution service costs or other such costs due for services provided by the Distribution Company to a Consumer.

5.5 **Non-Discriminatory Provision of Service** - Supplier shall supply electric energy to the Point of Delivery for all Consumers who receive local distribution and transmission service from the Distribution Company in the Member Municipalities and who do not opt out, or having opted out, request service, except as provided below in this Article 5.5. Subject to the prices and terms contained in Exhibit A, electricity shall be provided on a non-discriminatory basis; provided, however, that prices and other terms may vary in accordance with reasonably-established classes of customers (e.g., residential, commercial, municipal, industrial) or by such other categories as appear in Exhibit A. To the extent applicable, Supplier's prices, terms and conditions shall be in accordance with the Massachusetts General Laws, the regulations of the DTE, and other applicable provisions of law. To the extent required by law, Supplier may not deny service to a prospective customer for failure to pay the bills of any other electric company (whether engaged in the distribution, transmission, or generation of electricity) or of any other aggregator, marketer or broker of electricity, but may reasonably deny or condition new service, or terminate existing service, based upon the Consumer's failure to pay bills from Supplier, subject to applicable provisions of law. Provision of electric energy supply shall be subject to Supplier's standard credit policies, to the extent permitted by law, as described in Exhibit A.

5.6 Energy Efficiency and Green Power Programs - The Parties have a mutual interest in advancing the utilization of demand-side management, energy efficiency programs and technology, and Green Power programs. Supplier, upon reasonable request of the Compact, shall cooperate with the Compact in the implementation of such programs. At no time will Supplier take any actions with the intention of materially adversely affecting the operations of any of these programs. Supplier will use Commercially Reasonable efforts to identify any actions which might have a material adverse effect on the implementation of any programs involving demandside management, energy efficiency and Green Power and will use Commercially Reasonable efforts to consult with the Compact prior to taking such actions. Supplier shall also comply with the obligations set forth in Article 8 (Development or Offering of Green Power) of this Agreement.

Approval of General Communications - Supplier shall cooperate with the Compact in 5.7 the drafting and sending of messages and information to Consumers concerning the Compact or any matter arising under or related to this Agreement. Supplier shall, prior to sending any direct mail, advertising, solicitation, bill insert, electronic mail, or other similar written or electronic communication (collectively, "General Communications") to Consumers (but excluding individually drafted or tailored communications responding to the specific complaint or circumstance of an individual consumer), provide a copy of such General Communication to the Compact for its review to determine whether it is consistent with the purposes and goals of the Compact. The Compact shall have the right to disapprove such General Communications and suggest revisions if it finds the General Communication inconsistent with the purposes and goals of the Compact, factually inaccurate or likely to mislead; provided, however: (i) that the General Communication shall be deemed approved if the Compact fails to respond within seven (7) calendar days (not including weekends and holidays); and (ii) that no approval shall be necessary for any General Communication (a) regarding any emergency situation involving any risk to the public health, safety or welfare; (b) which has been approved by the DTE, the Division of Energy Resources, or any other Governmental Authority; or (c) in the nature of routine monthly or periodic bills, or collection notices, except that any bill insert or message included at the bottom of such bill not within the scope of (a) or (b) above shall require approval. If the Compact, acting on behalf of one or more Member Municipalities, objects to a mailing or other communication on the grounds it is inconsistent with the goals of the Compact, Supplier, after consultation as

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provided in this Article 5.7, may nevertheless elect to send such mailing or communication provided that it: i) clearly indicates on such mailing that it has not been endorsed by the Member Municipality and/or the Compact, ii) has previously provided all Consumers a meaningful chance to opt not to receive such General Communications, and iii) has stated in connection with such chance to opt not to receive such communications that "the Compact and the Member Municipalities want to protect Consumers from receiving marketing materials if you do not wish to do so," and iv) has otherwise sought input from the Compact as to the means by which Consumers are given a chance to remove their names from any list which may receive General Communications.

5.8 **Bill Inserts and Messages -** Supplier agrees that if it bills or communicates with Consumers directly, and unless prevented for regulatory or other such reasons from doing so, it shall allow the Compact to include no less than three bill inserts per year into such billings, provided that the Compact pays the cost of printing and reproducing such insert and any incremental postage or handling costs Supplier may incur as a result of including such insert. Supplier shall provide a copy of such communications to the Compact. Supplier further agrees that it shall, at its direct cost, if any, and to the extent that it does not conflict with planned use of any message space by Supplier, provide the Compact access to any message space on any bills Supplier sends to Consumers, to the extent any bills it sends directly or indirectly through the Distribution Company or other entity contain a bill message space under the control of Supplier.

5.9 **Consumer Lists** - To the extent not prohibited by any Governmental Rule or expressly by any Consumer, Supplier shall, upon request of the Compact, provide a list of the Consumers being served by Supplier, including such reasonable identifying and aggregate consumption information as the Compact may also request to the extent such information is available to Supplier. Supplier shall provide such consumer lists in an electronic format reasonably acceptable to both Parties and with no more frequency than once a month.

5.10 **Compliance with Laws** - The Parties shall promptly and fully comply with all existing and future Governmental Rules of all Governmental Authorities having jurisdiction over the activities covered by this Agreement.

5.11 **Consent** - Whenever performance of an obligation of any Party hereto requires the consent or approval of any Governmental Authority, such Party shall make Commercially Reasonable efforts to obtain such consent or approval. In the event Supplier requests the Compact's assistance in obtaining such consent or approval and the Compact anticipates that it will incur costs in fulfilling Supplier's request, it shall give Supplier an estimate of such costs. Upon receiving the cost estimate, Supplier shall determine if it continues to request the Compact's assistance, and if so, Supplier shall reimburse the Compact for all costs, up to the estimated dollar amount, reasonably incurred by the Compact in connection with such efforts.

#### ARTICLE 6 ROLES OF THE COMPACT AND THE MEMBER MUNICIPALITIES

Under this Agreement, the Compact and the Member Municipalities (except as they or entities under their control are direct customers) shall not actually receive, take title to, or be liable for the supply or delivery of All-Requirements Power Supply in any manner whatsoever. The Parties specifically agree that the role of the Compact is to a) set the terms and conditions under which All-Requirements Power Supply will be provided by Supplier under this Agreement and to ensure that Supplier complies with those terms and conditions, and b) act as agent for the Member Municipalities with respect to the matters addressed in this Agreement. It is the sole obligation of Supplier to arrange for delivery of All-Requirements Power Supply to Consumers. The Parties agree that neither the Compact nor the Member Municipalities are "aggregators," "distribution companies," "electric companies," "generation companies" or "transmission companies" within the meaning of G.L. c. 164, §1 as a result of this Agreement, unless a court, the DTE, or other lawful authority shall adjudicate to the contrary. Supplier hereby agrees that it will take no action that would make the Compact or its agents liable to any Consumer due to any act or failure to act on the part of Supplier relating to the delivery or supply of All-Requirements Power Supply.

#### ARTICLE 7 PRICES AND SERVICES; BILLING

7.1 Schedule of Prices and Terms - Supplier agrees to provide All-Requirements Power Supply and other related services as expressly set forth herein in accordance with the prices and terms included in Exhibit A to this Agreement, which Exhibit is hereby incorporated by reference into this Agreement.

7.2 **Obligation to Serve** - As between the Parties, Supplier has the sole obligation to obtain sources of supply, whether from generating facilities owned or controlled by its affiliates, through bilateral transactions, or the market, as may be necessary to provide All-Requirements Power Supply for all of the Consumers who do not opt out of the Compact's Aggregation Program. Supplier shall make appropriate arrangements to obtain such capacity, electrical energy, and ancillary services for load-following purposes, including, but not limited to, spinning reserves, supplemental reserves, backup supplies and services as may be needed in the event of outages or emergencies, and all other ancillary services as necessary to provide a firm, reliable, and safe All-Requirements Power Supply for Consumers to the Point of Delivery. Supplier, except as explicitly limited in the terms included in Exhibit A, shall be obligated to accept all Consumers who are or become participants in the Compact's Aggregation Program, regardless of their location and energy needs, subject to the credit requirements enumerated in Exhibit A, Article 5.5 (Non-Discriminatory Provision of Service) hereof and applicable law.

7.3 Metering and Billing - As between the Parties, Supplier bears sole responsibility for any metering which may be required to bill Consumers, and for rendering of any bills to Consumers. Supplier may discharge this obligation by making appropriate arrangements with the Distribution Company or any other entity. Any metering and billing functions carried out by Supplier shall be conducted in compliance with relevant rules and regulations of the DTE and the Attorney General of the Commonwealth.

#### 7.4 Terms and Conditions Pertaining to Individual Account Service -

A. Title
Title to All-Requirements Power Supply will transfer from Supplier to Consumers at the Point of Sale. Possession of, and risk of loss related to, All-Requirements Power Supply will transfer from Supplier to the Distribution Company at the Point of Delivery.

#### B. Term

Delivery of All-Requirements Power Supply will begin on the first Consumer meter read dates in December, 2005 as specified in Exhibit A, or as soon as necessary arrangements can be made with the Distribution Company thereafter and will end on the last Consumer meter read dates in January, 2007 unless extended or modified in accordance with Article 4.4. Supplier has the right to request a "special" meter reading by the Distribution Company to initiate energy delivery and agrees to accept all costs (if any) for such meter reading.

#### C. Billing and Payment

Unless otherwise specified in an Exhibit to this Agreement, all billing under this Agreement shall be based on the meter readings of each Consumer's meter(s) performed by the Distribution Company. Supplier shall, or shall cause the Distribution Company or any other entity to, prepare and mail bills to Consumers monthly. If Supplier arranges for the Distribution Company to perform billing services, Supplier shall adopt the billing and payment terms offered by the Distribution Company. Payment shall be net thirty (30) days from the date of billing. The Consumer will pay a late charge of 1.5% per month, or the maximum rate allowed by state law if that rate is less, for payments received after the due date. Billing may take place through the Distribution Company at Supplier's option. In the event that necessary billing data is not received from the Distribution Company in time to prepare monthly bills, Supplier reserves the right to issue a bill based on an estimate of the Consumer's total kWh usage for that billing period. Any over-charge or under-charge will be accounted for in the next billing period for which actual meter data is available.

#### D. Regional and Local Transmission

The prices quoted in Exhibit A do not include current and future charges for distribution service costs collected by the Distribution Company under its distribution service tariff or local transmission costs as may be imposed by the regional power pool or individual electric utilities that have FERC transmission tariffs. It is Supplier's understanding that these costs will be collected by the Distribution Company under its transmission tariff charge. If in the future Supplier becomes responsible for distribution costs, Supplier shall be entitled to collect such costs from Consumers to the extent permitted by any Governmental Rules. These costs are "pass through" costs as determined by the appropriate regulatory agencies.

#### E. Taxes

All sales, gross receipts, excise or similar taxes imposed with respect to the sale or consumption of All-Requirements Power Supply shall be included on each Consumer's bill and

shall be remitted to the appropriate taxing authority by Supplier. Consumers shall be responsible for all taxes (except for taxes on Supplier's income) associated with sales under the Agreement. Consumers shall be responsible for identifying and requesting any exemption from the collection of any tax by providing appropriate documentation to Supplier.

#### F. EDI/EFT

Supplier may provide Electronic Funds Transfer ("EFT") as a payment option to Consumers provided the Consumers and Supplier can mutually access a common Value Added Network ("VAN") and provided further that Supplier is allowed to pass through the costs imposed by VAN providers or the provider of other electronic transmission vehicle.

#### ARTICLE 8 DEVELOPMENT OR OFFERING OF GREEN POWER

#### 8.1 Offering of Green Power -

#### A. Cape Light Compact Green<sup>sm</sup>

Supplier hereby agrees that it will incorporate the Cape Light Compact Green<sup>sm</sup> program into Supplier's provision of All Requirements Power Supply under this Agreement and offer such program to any Consumers who affirmatively choose to participate. The Supplier and the Compact agree that Supplier shall be reimbursed by the Compact (or participating Consumers, if the Compact so directs) for any reasonable costs Supplier incurs in the implementation of Cape Light Compact Green<sup>sm</sup>.

#### B. Green Power

Supplier hereby agrees that it will comply with the applicable provisions of G.L. c. 25A, §11F and any regulations, orders or policies adopted pursuant thereto. The Parties agree that in view of opportunities to reduce the environmental cost of electric power generation, the Compact and Supplier have a mutual interest in advancing the use of Green Power. Supplier and the Compact agree that subsequent to execution of this agreement, the Parties will consider options to incorporate Green Power purchases beyond those that may be required by law, regulations or policies that may be adopted pursuant to the provisions of G.L. c. 25A, section 11 F and beyond the Cape Light Compact Green<sup>sm</sup>. The purpose of such consideration will be to determine viable options that may be included as part of the power supply portfolio, and/or offered individually to Consumers, and to determine the costs of such options. The Parties also agree to such considerations at mutually acceptable times following initiation of service as new sources of Green Power become available. Upon mutual agreement on cost and viability based on such considerations, the Parties will amend Exhibit A to incorporate an additional Green Power supply option (beyond Cape Light Compact Green<sup>sm</sup>) or options as part of the power supply to be procured by Supplier. The Parties agree that all of Supplier's reasonable costs for examination and implementation of any additional Green Power options hereunder, other than those normally incurred in marketing and similar activities, will be reimbursed by the Compact.

8.2 **Renewable Energy Projects-** Supplier hereby agrees that it will incorporate as part of its All Requirements Power Supply, any and all Green Power that the Compact purchases from renewable energy projects in the Member Municipalities.

#### ARTICLE 9 SERVICE PROTECTIONS FOR RESIDENTIAL CUSTOMERS

Supplier agrees that it shall comply with the provisions of 220 CMR Parts 25, 27, 28 and 29, any amendments thereto, and any code of conduct or policies the DTE may adopt in accordance with G.L. c. 164, §1F(7). Supplier shall, on or before December 16, 2005, provide a written, detailed description of its billing and termination procedures, customer services, confidentiality and related practices and procedures for approval by the Compact (which approval shall not be unreasonably withheld). Such written description shall also include Supplier's plans for maintaining "service quality standards," as that phrase is used in §1F(7); for complying with the "affirmative choice" requirements of §1F(7); and for handling customer complaints, including any arbitration procedures. If the Consumer(s) so permit(s) to the extent such permission is required by law, Supplier agrees to provide notice to the Compact of any customer complaints received from a Consumer, and to grant the Compact the right to participate in resolution of the dispute, to the extent permitted by DTE regulations and other applicable law. The failure to timely submit such written description, or the submission of practices and procedures which materially fail to comply with DTE regulations and policies, shall be deemed grounds for termination of this Agreement, at the discretion of the Compact after providing written notice of such failure to Supplier and allowing Supplier sixty (60) days to cure such failure.

#### ARTICLE 10 NON-DISCRIMINATION IN HIRING AND EMPLOYMENT

Supplier agrees to conduct its operations and activities under this Agreement in accordance with all applicable state and federal laws regarding non-discrimination in hiring and employment of employees.

#### ARTICLE 11 POWER SUPPLY INFORMATION AND ACCESS TO INFORMATION

#### 11.1 Power Supply Information -

#### A. Quarterly Reports of Sales

The Supplier will provide the Compact with a quarterly report of sales which will contain: (i) the actual kWh sales for each calendar month of the reporting period; (ii) the number of customer accounts active in each calendar month of the report; and (iii) the hourly load data from the Supplier's ISO load asset(s) for all customers served by Supplier during the period of the report. The quarterly report will be due to the Compact within thirty (30) days following the close of each quarter (March 31, June 30, September 30, December 31). The kWh sales and

number of customer accounts shall be listed in the report both by rate code and rate name as shown on Exhibit B attached hereto. This information shall be provided in electronic format.

#### B. Customer-Related Data

During the term of All Requirements Power Supply to individual accounts (as defined in Article 7.4B), Supplier will maintain customer-related data in electronic form as specified in Exhibit C attached hereto, and will make such data available to the Compact upon request.

#### C. Additional Information

Upon request, Supplier shall provide to the Compact, within a reasonable time, information regarding efforts to comply with the Green Power provisions of this Agreement; and such other matters as may be mutually agreed upon by the Parties, acting in good faith.

#### D. Standard of Care

The Supplier shall use good industry practice in preparing and providing any information or data required under this Agreement. To the extent the Supplier determines that any information or data provided hereunder is in error, it shall provide such information or data to the Compact within a Commercially Reasonable time.

11.2 **Power Supply Report** - Within fifteen (15) days of the end of the quarter, Supplier shall present a copy of the current "Disclosure Label" required by the DTE of all Competitive Suppliers to be disclosed to their customers which includes information pertaining to their power supply and a reasonably detailed description of the sources of Supplier's power supply used to serve Consumers pursuant to this Agreement, except to the extent such disclosure would violate any confidentiality obligations of Supplier. Supplier shall post the "Disclosure Label" on their web site under Cape Light Compact power supply program.

11.3 **Books and Records** - Supplier shall keep its books and records in accordance with any applicable regulations or guidelines of the DTE, the Federal Energy Regulatory Commission, and any other Governmental Authority. The Compact will have access to all reports mandated by the Securities and Exchange Commission which are available on the Internet "EDGAR" system. Upon reasonable request by the Compact and at the Compact's expense, Supplier shall provide back-up for any charge under this Agreement questioned by the Compact.

11.4 **Copies of Regulatory Reports and Filings** - Upon reasonable request, Supplier shall provide to the Compact a copy of each public periodic or incident-related report or record relating to this Agreement which it files with any Massachusetts or federal agency regulating rates, service, compliance with environmental laws, or compliance with affirmative action and equal opportunity requirements, unless Supplier is required by law or regulation to keep such reports confidential from the other Parties. The Compact shall treat any reports and/or filings received from Supplier as confidential information subject to the terms of Article 16 (Confidentiality). Supplier shall be reimbursed its reasonable costs of providing such copies.

#### ARTICLE 12 RESOLUTION OF DISPUTES; CHOICE OF LAW

12.1 **Choice of Law** - This Agreement and the rights of the Parties shall be interpreted and determined in accordance with the laws of the Commonwealth of Massachusetts.

Dispute Resolution - Unless otherwise expressly provided for in this Agreement, the 12.2 dispute resolution procedures of this Article 12.2 shall be the exclusive mechanism to resolve disputes arising under this Agreement. The Parties agree to use their respective best efforts to resolve any dispute(s) that may arise regarding this Agreement. Any dispute that arises under or with respect to this Agreement that cannot be resolved shall in the first instance be the subject of informal negotiations between the Parties involved in the dispute. The dispute shall be considered to have arisen when one Party sends the other Party(ies) involved in the dispute a written notice of dispute. The period for informal negotiations shall be fourteen (14) days from receipt of the written notice of dispute unless such time period is modified by written agreement of the Parties involved in the dispute. In the event that the parties involved in the dispute cannot resolve a dispute by informal negotiations, the Parties agree to submit the dispute to mediation. Within fourteen (14) days following the expiration of the time period for informal negotiations, the Parties shall propose and agree upon a neutral and otherwise qualified mediator. In the event that the Parties fail to agree upon a mediator, the Parties shall request that the American Arbitration Association, Boston, Massachusetts, appoint a mediator. The period for mediation shall commence upon the appointment of the mediator and shall not exceed sixty (60) days, unless such time period is modified by written agreement of the Parties. The decision to continue mediation shall be in the sole discretion of each party involved in the dispute. The Parties will bear their own costs of the mediation. The mediator's fees shall be shared equally by all Parties involved in the dispute. In the event that the Parties cannot resolve a dispute by informal negotiations or mediation, either Party may seek judicial enforcement. Notwithstanding the foregoing, injunctive relief may be sought without resorting to alternative dispute resolution to prevent irreparable harm that would be caused by a breach of this Agreement. In any judicial proceeding, the "Prevailing Party" shall be entitled to payment from the opposing party of its reasonable costs and fees, including but not limited to attorneys' fees and travel expenses, arising from the civil action. As used herein, the phrase "Prevailing Party" shall mean the party who, in the reasonable discretion of the finder of fact, most substantially prevails in its claims or defenses in the civil action. Venue for any judicial proceeding involving a dispute arising from this Agreement shall be Barnstable County Superior Court, Massachusetts.

#### ARTICLE 13 INDEMNIFICATION

13.1 Indemnification by Supplier - Supplier shall indemnify, defend and hold harmless the Member Municipalities and the Compact (collectively "Indemnified Parties" and singularly "Indemnified Party") and each Indemnified Party's officers, employees, agents, representatives and independent contractors, from and against any and all costs, claims, liabilities, damages, expenses (including reasonable attorneys' fees), causes of action, suits or judgments, incurred by, on behalf of or involving any one of the foregoing parties to the extent arising, directly or indirectly, from or in connection with (i) any material breach by Supplier of its obligations,

covenants, representations or warranties contained in this Agreement and not resulting from the actions of the Distribution Company, the Compact or any Member Municipality or their employees or agents, or (ii) Supplier's actions or omissions taken or made in connection with Supplier's performance of this Agreement. Supplier further agrees, if requested by the Compact or any Member Municipality, to investigate, handle, respond to, and defend any such claim, demand, or suit at its own expense arising under this Article 13.1.

13.2 Notice of Indemnification Claims - If the Compact or any Member Municipality seeks indemnification pursuant to this Article 13, the Compact shall notify Supplier of the existence of a claim, or potential claim as soon as practicable after learning of such claim, or potential claim, describing with reasonable particularity the circumstances giving rise to such claim. Upon written acknowledgment by Supplier that it will assume the defense and indemnification of such claim, Supplier may assert any defenses which are or would otherwise be available to the Compact and/or a Member Municipality, as the case may be.

13.3 **Survival** - Notwithstanding any provision contained herein, the provisions of this Article 13 and the Financial Sureties and Guaranties provided by Supplier pursuant to Article 15.2 (Additional Financial Sureties and Guarantees) shall survive the termination of this Agreement for a period of three (3) years with respect to a) any claims which occurred or arose prior to such termination and b) any losses occurring as a result of the termination.

13.4 **Duty to Mitigate** – All Parties agree that they have a duty to mitigate damages and covenants that they will use Commercially Reasonable efforts to minimize any damages they may incur as a result of any other Party's performance or non-performance of this Agreement.

#### ARTICLE 14 REPRESENTATIONS AND WARRANTIES

14.1 **Representations and Warranties by Supplier** - As a material inducement to entering into this Agreement, Supplier hereby represents and warrants to the Compact as of the Effective Date of this Agreement as follows:

(i) it is duly organized, validly existing and in good standing under the laws of the jurisdiction of its formation and is qualified to conduct its business in those jurisdictions necessary for it to perform its obligations under this Agreement;

(ii) it has all authorizations from any Governmental Authority necessary for it to legally perform its obligations under this Agreement or will obtain such authorizations in a timely manner prior to when any performance by it requiring such authorization becomes due;

(iii) the execution, delivery and performance of this Agreement are within its powers, have been duly authorized by all necessary action and do not violate any of the terms or conditions in its governing documents or any contract to which it is a party or any Governmental Rule applicable to it;

(iv) subject to the conditions set forth in Article 2.5 (Conditions Precedent), this Agreement constitutes a legal, valid and binding obligation of Supplier enforceable against it in accordance with its terms, and Supplier has all rights such that it can and will perform its obligations to Supplier in conformance with the terms and conditions of this Agreement, subject to bankruptcy, insolvency, reorganization and other laws affecting creditor's rights generally and general principles of equity;

it;

(v) no Bankruptcy is pending against it or to its knowledge threatened against

П,

(vi) none of the documents or other written information furnished by or on behalf of Supplier to the Compact and/or the Member Municipalities pursuant to this Agreement, contains any untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements contained herein or therein, in the light of the circumstances in which they were made, not misleading; and

(vii) all information furnished by Supplier in response to the request for proposals for competitive electric supply services is true and accurate.

14.2 **Representations and Warranties by the Compact** - As a material inducement to entering into this Agreement, the Compact hereby represents and warrants to Supplier as of the effective date of this Agreement as follows:

(i) the Compact was formed by intergovernmental agreement in accordance with the laws of the Commonwealth of Massachusetts;

(ii) this Agreement will constitute the legal, valid and binding obligation of the Compact enforceable in accordance with its terms;

(iii) the execution, delivery and performance of this Agreement are within the Compact's powers, have been or will be duly authorized by all necessary action and the Compact is the duly authorized agent of the Member Municipalities with respect to the matters addressed in this Agreement;

(iv) the Compact has all authorizations from any Governmental Authority necessary for it to legally perform its obligations under this Agreement or will obtain such authorizations in a timely manner prior to when any performance by it requiring such authorization becomes due; and

(v) no Bankruptcy is pending or threatened against it or any Member Municipality.

#### ARTICLE 15 INSURANCE AND OTHER FINANCIAL SURETIES AND GUARANTEES

15.1 **Insurance** - In order to help support the indemnifications provided in Article 13 (Indemnification), and its other promises and covenants stated herein, Supplier shall secure and maintain, at its own expense, throughout the term of this Agreement, comprehensive commercial general liability insurance of at least \$5,000,000 combined single limit and excess liability coverage of at least \$5,000,000 with insurers and with the Compact and Member Municipalities named as additional insureds. Supplier shall provide the Compact with evidence, reasonably satisfactory to the Compact, of its insurance hereunder, upon request. The detailed terms of Supplier's insurance are set forth in Exhibit D attached hereto.

15.2 Additional Financial Sureties and Guarantees – In addition to the insurance set forth in Article 15.1, above, Supplier's Parent Guarantee dated January 26, 2006 provides financial security to the Compact for Supplier's obligations hereunder, including, without limitation, the indemnification set forth in Article 13 (Indemnification), in the form attached hereto as Exhibit E.

Supplier may change the type and amount of its financial security provided hereunder with the consent of the Compact, such consent not to be unreasonably withheld.

Upon reasonable request during the term of this Agreement and on a continuing basis, Supplier will provide the Compact with Commercially Reasonable proof of its ability to meet its indemnification obligations to the Compact and the Member Municipalities pursuant to this Agreement. Supplier will provide the Compact with a copy of its parent's annual report. Supplier also agrees to notify the Compact in the event that its parent's unsecured, senior longterm debt or current corporate credit rating (not supported by third- party credit enhancements) is less than BBB- by Standard & Poor's Rating Group or less than BBB- by Fitch Investor Services, Inc. (a "Downgrade Event"). Should a Downgrade Event occur, the Compact may request that Supplier provide a substitute form of security in an amount to be determined in accordance with the formula described in the preceding paragraph. Upon receipt of such notice, Supplier shall have three (3) business days in which to provide such substitute form of security to the Compact.

15.3 **Reserve Fund** - In order to ensure timely access to funds and: (a) provide the Compact with further financial security in the event Supplier declines to or otherwise fails to indemnify it pursuant to Article 13 (Indemnification) and that the insurance coverage pursuant to Article 15.1 (Insurance) and the other financial sureties provided pursuant to Article 15.2 (Additional Financial Sureties and Guarantees) are unavailable or insufficient, and (b) provide the Compact with a special reserve fund ("Reserve Fund") to give further assurances that the Compact will be able to respond appropriately to any risks associated with this Agreement, Supplier agrees to collect on behalf of the Compact, ½ mil (\$.0005), or such other amount as the Compact may determine, for every kWh sold to Consumers for the duration of service under this Agreement. The County may elect to release Supplier, in whole or in part, from this obligation. If the County elects to do so, it shall provide Supplier with sixty (60) days advance written notice of its decision. Supplier shall remit to the Compact or its designee within thirty (30) days of the end of the month, by electronic funds transfer or such other mutually acceptable method, the amounts due pursuant to this Article 15.3 and provide reasonable supporting documentation as to the total number of kWh sold in each preceding month upon which such payment is calculated.

Once paid to the Compact or its designee, Supplier shall have no further interest or claim in such Reserve Fund. The Compact may use the Reserve Fund to cover any costs, claims, liabilities, damages, expenses (including reasonable attorney's fees), causes of action, suits or judgments, incurred by or on behalf of the Compact or Member Municipalities. The Compact shall cause all funds collected for it by Supplier hereunder to be deposited in a dedicated, interest-bearing account. The Compact may expend such funds for any purpose as may be allowed by law and as determined in the reasonable discretion of the Compact's Governing Board.

#### ARTICLE 16 CONFIDENTIALITY

The Parties' confidentiality obligations are governed by a Confidentiality Agreement dated as of August 4, 2005 (the "Confidentiality Agreement").

#### ARTICLE 17 MISCELLANEOUS

17.1 No Assignment Without Permission - Supplier shall not assign its rights and privileges under this Agreement without the prior written approval of the Compact. Such approval may be denied in the reasonable discretion of the Compact if it determines that the proposed assignee does not have at least the same financial and technical ability as the assigning Supplier. Notwithstanding the foregoing, the Compact may not unreasonably withhold its consent to an assignment to an affiliated entity under common control or management with Supplier. Supplier's assignee shall agree in writing to be bound by the terms and conditions of this Agreement. The Compact may assign this Agreement without the prior consent of Supplier. The rights and obligations created by this Agreement shall inure to the benefit of, and be binding upon, the successors and permitted assigns of, the respective Parties hereto.

17.2 **Direct Marketing** - Prior to the introduction of any new product or service which Supplier may wish to make available to Member Municipalities or other Consumers located within a Member Municipality, Supplier agrees to (i) give the Compact written notice of such new product or service and (ii) subject to the entry into reasonable confidentiality terms to the extent permitted by law and mutually acceptable to the Parties, discuss with the Compact the possible inclusion of such new product or service in this or another aggregation program undertaken by the Compact and Member Municipalities in the geographic area encompassing the Member Municipalities. The Parties agree to negotiate in good faith the terms, conditions, and prices for such products and services which the Parties agree should be included in a Compact aggregation program.

Supplier also agrees not to engage in any direct marketing to any Consumer that relies upon Supplier's unique knowledge of, or access to, particular Consumer data gained as a result of this Agreement. For the purposes of this provision, "direct marketing" shall include any telephone call, mailing, electronic mail, or other contact between Supplier and the Consumer. Broad-based programs of Supplier that do not rely on unique knowledge or access gained through this Agreement will not constitute such "direct marketing." 17.3 Notices - All notices, demands, requests, consents or other communications required or permitted to be given or made under this Agreement shall be in writing and addressed to:

if to Supplier to:

Mr. Jorge Lopez Vice President Consolidated Edison Solutions, Inc. 701 Westchester Ave; Suite 301 East White Plains, NY 10604 (914) 286-7779 (voice) (914) 286-7736 (fax) lopezj@conedsolutions.com

For Operational Issues Only: Mr. Thomas Ringwald Managing Director, Customer Operations Consolidated Edison Solutions, Inc. 701 Westchester Ave; Suite 301 East White Plains, NY 10604 (914) 286-7721 (voice) (914) 948-8908 (fax) ringwaldt@conedsolutions.com

if to the Compact to:

Ms. Margaret Downey Administrator Cape Light Compact P.O. Box 427 Superior Court House Barnstable, Massachusetts 02630 (508) 375-6636 (voice) (508) 362-4136 (fax) <u>mags@cape.com</u> Vice President & General Counsel Consolidated Edison Solutions, Inc. 701 Westchester Ave; Suite 301 East White Plains, NY 10604 (914) 286-7085 (voice) (914) 686-1413 (fax) dixonj@conedsolutions.com

Mr. James J. Dixon

Mr. Joseph Soares Power Supply Planner Cape Light Compact P.O. Box 427 Superior Court House Barnstable, MA 02630 (508) 375-6623 (voice) (508) 362-4136 (fax) jas@cape.com

Notices hereunder shall be deemed properly served (i) by hand delivery, on the day and at the time on which delivered to the intended recipient at the address set forth in this Agreement; (ii) if sent by mail, on the third business day after the day on which deposited in the United States certified or registered mail, postage prepaid, return receipt requested, addressed to the intended recipient at its address set forth in this Agreement; or (iii) if by Federal Express or other reputable express mail service, on the next business day after delivery to such express mail service, addressed to the intended recipient at its address set forth in this Agreement. Any party may change its address and contact person for the purposes of this Article 17.3 by giving notice thereof in the manner required herein.

17.4 **Changes in Emergency and Service Contact Persons** - In the event that the name or telephone number of any emergency or service contact for Supplier changes, Supplier shall give prompt notice to the Compact in the manner set forth in Article 17.3 (Notices). In the event that the name or telephone number of any such contact person for the Compact changes, prompt notice shall be given to Supplier in the manner set forth in Article 17.3 (Notices).

17.5 Entire Agreement; Amendments - This Agreement, the Confidentiality Agreement and the Related Documents constitute the entire agreement between the Parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings between the Parties relating to the subject matter hereof. This Agreement may only be amended or modified by a written instrument signed by all Parties hereto.

17.6 Force Majeure - If by reason of Force Majeure any Party is unable to carry out, either in whole or in part, its obligations herein contained, such Party shall not be deemed to be in default during the continuation of such inability, provided that: (i) the non-performing Party, within two (2) weeks after the occurrence of the Force Majeure, gives all other Parties hereto written notice describing the particulars of the occurrence; (ii) the suspension of performance be of no greater scope and of no longer duration than is required by the Force Majeure; (iii) no obligations of the Party which were to be performed prior to the occurrence causing the suspension of performance shall be excused as a result of the occurrence; and (iv) the non-performing Party shall use Commercially Reasonable efforts to remedy with all reasonable dispatch the cause or causes preventing it from carrying out its obligations. If an event of Force Majeure continues for a period of one hundred eighty (180) days or longer, either Party may treat such an event as an event of default and may terminate this Agreement by sending the other party a written notice to cure as set forth in Article 4.2 (Termination).

17.7 **Expenses** - Each Party hereto shall pay all expenses incurred by it in connection with its entering into this Agreement, including without limitation, all attorneys' fees and expenses.

17.8 No Joint Venture - Supplier will perform all services under this Agreement as an independent contractor. Nothing herein contained shall be deemed to constitute any Party a partner, agent or legal representative of any other Party or to create a joint venture, partnership, agency or any relationship between the Parties. The obligations of the Compact and Supplier hereunder are individual and neither collective nor joint in nature.

17.9 **Joint Workproduct** - This Agreement shall be considered the workproduct of both Parties hereto, and, therefore, no rule of strict construction shall be applied against either Party.

17.10 **Counterparts** - This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which shall constitute a single agreement.

17.11 Waiver - No waiver by any Party hereto of any one or more defaults by any other Party in the performance of any provision of this Agreement shall operate or be construed as a waiver of any future default, whether of like or different character. No failure on the part of any Party hereto to complain of any action or non-action on the part of any other Party, no matter how long the same may continue, shall be deemed to be a waiver of any right hereunder by the Party(ies) so failing. A waiver of any of the provisions of this Agreement shall only be effective if made in writing and signed by the Party who is making such waiver.

17.12 **Related Documents** - Supplier agrees that it has been provided with and had a reasonable opportunity to read the Related Documents and to ask questions about the terms and conditions of the Related Documents. The Parties agree that the Related Documents, in the forms as they exist on the Effective Date of this Agreement, are incorporated into this Agreement by reference, and that they shall be construed harmoniously to the greatest practicable extent; notwithstanding the foregoing, in the event of any conflict between this Agreement and the Related Documents, this Agreement shall govern. The Compact will provide Supplier with amendments to any of the foregoing documents as they are adopted; provided, however, that such amendments are not incorporated into this Agreement as a result of such adoption. Any amendments hereto must be made in accordance with Article 17.5 (Entire Agreement; Amendments) of this Agreement.

17.13 Advertising Limitations - Supplier agrees not to use the name of the Cape Light Compact or any Member Municipality, or make any reference to the Cape Light Compact or any Member Municipality in any advertising or other information to be distributed publicly for marketing or educational purposes, unless the Compact expressly agrees to such usage. Any proposed use of the name of the Cape Light Compact or any Member Municipality must be submitted in writing for agreement and prior approval, which shall not be unreasonably withheld, consistent with Article 5.7 (General Communications) hereof. The Compact acknowledges that Supplier's corporate affiliates own the exclusive right to the trademarked logo and trade name used by Supplier. No right, license or interest in this trademark and/or trade name is granted to the Compact hereunder, and the Compact agrees that it shall not assert any right, license or interest with respect to such trademark and/or trade name.

17.14 **Press Releases** - The Parties shall not issue a press release or make any public statement with respect to this Agreement without the prior written agreement of the other Party with respect to the form, substance and timing thereof, except either Party may make any such press release or public statement when the releasing Party is advised by its legal counsel that such a press release or public statement is required by law, regulation or stock exchange rules, provided however, in such event, the Parties shall use their reasonably good faith efforts to agree as to the form, substance and timing of such release or statement.

17.15 Headings and Captions - The headings and captions appearing in this Agreement are intended for reference only, and are not to be considered in construing this Agreement.

17.16 Survival of Obligations - Termination of this Agreement for any reason shall not relieve the Company or Supplier of any obligation accrued or accruing prior to such termination.

#### 17.17 Remedies -

A. General - Subject to the limitations set forth in Section 17.17(B) below, the Compact, each of the Member Municipalities, and the Supplier reserve and shall have all rights and remedies available to each of them at law or in equity with respect to the performance or non-performance of the other parties hereto under this Agreement.

B. Limitations - NO PARTY HERETO SHALL BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, PUNITIVE, EXEMPLARY OR INDIRECT DAMAGES, LOST PROFITS OR OTHER BUSINESS INTERRUPTION DAMAGES, BY STATUTE, IN TORT OR CONTRACT. Notwithstanding the foregoing, Supplier acknowledges that the preceding sentence shall not limit the Compact's rights under Article 13.1 (Indemnification) to seek indemnification from Supplier or consequential, punitive, or incidental damages or other such losses claimed by third-parties, subject to any limitations set forth in the Payment Guarantee.

17.18 **Cooperation** – The Parties agree that they shall use Commercially Reasonable efforts in good faith and in full cooperation with the other Party to secure any approvals required to implement this Agreement and to otherwise carry out their obligations hereunder.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the Effective Date.

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## **CONSOLIDATED EDISON SOLUTIONS, INC.**

By: \_\_\_\_\_ JoAnn F. Ryan President & Chief Operating Officer 701 Westchester Ave; Suite 300 E White Plains, NY 10604

Dated:

CAPE LIGHT COMPACT L By: Ms. Margaret Downey Administrator Cape Light Compact P.O. Box 427 Superior Court House Barnstable, MA 02630 (508) 375-6636 (voice) (508) 362-4166 (fax) mags@cape.com Dated: 10

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the Effective Date.

CONSOLIDATED EDISON SOLUTIONS, INC.

Kephin By: JoAnn F. Kyan

President & Chief Operating Officer 701 Westchester Ave; Suite 300 E White Plains, NY 10604

Dated: January 26, 2006

#### CAPE LIGHT COMPACT

By: \_

Ms. Margaret Downey Administrator Cape Light Compact P.O. Box 427 Superior Court House Barnstable, MA 02630 (508) 375-6636 (voice) (508) 362-4166 (fax) mags@cape.com

Dated: \_\_\_\_\_

#### EXHIBIT A

#### PRICES AND TERMS

- Start Date: All-requirements retail power supply will commence on customer meter read dates in December 2005.
- Term: The term for all-requirements retail power supply is fourteen months, from the first Consumer meter read dates in December 2005 through the last Consumer meter read dates in January 2007 (the "Term").
- As indicated below, ConEdison Solutions is providing the final price for each of the indicated classes of customers for all-requirements retail power supply:
  - o All price offers are stated in dollars per megawatt-hour of metered retail sales.
  - o These prices do not include any applicable taxes.
  - Price by Customer Class:
    - \$128.69 / MWh for Residential Customers (Rate Codes R-1, R-2, R-3, R-4, R-5, R-6)
    - \$133.19 / MWh for Small Commercial Customers (Rate Codes G-1, G-4, G-5, G-6, G-7, S-1)
    - o \$143.27 / MWh for Industrial Customers (Rate Codes G-2 and G-3)
  - These Customer Class Prices include a cost of retail related services of \$1.41/MWh.
  - These prices do not include any adders of any amount, which may be subsequently requested by the Compact pursuant to Section 15.3 of this Competitive Supply Agreement.
  - The prices indicated above include Renewable Portfolio Standard Renewable Energy Certificates (RECs) to be supplied by the Compact to Con Edison Solutions at a price of \$48 per REC for all RECs required by the Renewable Portfolio Standard for the Compact's customers.

#### **Confidential Treatment of This Exhibit A:**

The terms set forth in this Exhibit A are being voluntarily provided, subject to the Cape Light Compact's promise that it be provided confidential treatment until November 30, 2005, pursuant to M.G.L. c. 4, §7, cl. 26(g) which provides an exemption to the definition of "Public Records" that allows withholding from public disclosure of "trade secrets or commercial or financial information voluntarily provided to an agency for use in developing governmental policy and upon a promise of confidentiality...." Con Edison Solutions has requested that Exhibit A be withheld from public disclosure since the most efficacious and cost-effective arrangement by Con Edison Solutions and the Cape Light Compact of the power supply and Renewable Energy Certificates set forth herein might be compromised by premature disclosure of this Exhibit A.

### EXHIBIT B

#### TEMPLATE KWH SALES AND CUSTOMER ACCOUNTS DATA SUMMARY

Rate Code	Rate Name	Accounts	Customers	kWh
R-1 G-1 G-2 G-2 G-2 G-3 G-5 G-7 R-5 G-1 S-1 S-1 S-1 S-2	Res. Non-Heat/Annual Mun. Gov./ General Mun. Gov./ Water Pumping Mun. Gov./ General-Medium TOU Mun. Gov./ Water Pumping-Medium TOU Mun. Gov./ General-Medium TOU Mun. Gov./ General-Large TOU Mun. Gov./ General-Comm. Htg. Mun. Gov./ General TOU State Gov./ General TOU State Gov./ General-Wtr Heating Fed. Gov./ General Fed. Gov./ Street & Traffic Lights Mun. Gov./ Street & Traffic Lights State Gov./ Street & Traffic Lights Mun. Gov. Owned Street Ltg.13	[X] [X] [X] [X] [X] [X] [X] [X] [X] [X]	[x] [x] [x] [x] [x] [x] [x] [x] [x] [x]	[X] [X] [X] [X] [X] [X] [X] [X] [X] [X]
Total:		[x]	[x]	[x]

#### EXHIBIT C

#### TERMS AND CONDITIONS FOR PROVISION OF CUSTOMER-RELATED DATA

The layout of the electronic files containing the customer data should adhere to the terms and conditions set forth below.

There are 6 files containing customer and meter information. The file labeled **capeTOU.zip** contains the time of use customer and meter usage data. Files labeled **capetown1.zip** to **capetown5.zip** contain customer and meter usage data for non-time of use customers. These files are delimited by a semicolon (;) and are broken down as follows:

# of customers

File Name Capetown1.zip Capetown2.zip Capetown3.zip Capetown5.zip Capetown5.zip CapeTOU.zip

The column headings for the capetown1.zip to capetown5.zip files are listed below.

# of records

Field name Account Customer Service Street # Service Street Name Service Street Suffix Service Town Service Zip Tax Id **Rev/Rate** Standard or Default Phone # January Use January Demand February Use February Demand March Use March Demand April Use April Demand May Use May Demand June Use June Demand

an Alian Ali

July Use July Demand August Use August Demand September Use September Demand October Use October Demand November Use November Demand December Use December Demand Mail Street # Name Mail Town Mail State Mail Zip

The column headings for the **capeTOU.zip** file are listed below. This file is different than the non-TOU accounts. This file lists each customer 12 times with each month's usage listed on one line.

#### Field name

Account Customer Service Street # Service Street Name Service Street Suffix Service Town Service Zip Tax Id Rate Revenue Standard or Default Phone # KWH From Date To Date Peak KVA Mail Street # Name Mail Town Mail State Mail Zip

#### EXHIBIT D

1

#### INSURANCE

- 1. Supplier shall maintain commercial general liability insurance throughout the term of the Agreement and for a period of at least two years following the contract term.
- 2. The insurance may be provided on a claims made basis. In the event such insurance is cancelled or non-renewed, Supplier agrees to provide a 36 month discovery period endorsement for obligations under this agreement.
- 3. The insurance shall include coverage for bodily injury liability, property damage liability, advertising injury liability and personal injury liability.
- 4. To the extent available at commercially reasonable terms and conditions, personal injury liability coverage shall include non-employment discrimination in accordance with AEGIS form 8100 (1/1/98).
- 5. To the extent available at commercially reasonable terms and conditions, the insurance shall include Failure to Supply coverage and such coverage shall be in accordance with AEGIS form 8100(1/1/98).
- 6. The insurance shall include blanket contractual liability coverage, including the Competitive Electric Supply Agreement between Supplier and the Cape Light Compact.
- 7. The limit of commercial general liability insurance shall be at least \$5 million each occurrence. Separate aggregate limits of \$5 million may be applicable to products and completed operations liability coverage and failure to supply liability coverage.
- 8. Supplier shall maintain umbrella or excess liability insurance subject to a limit of at least \$5 million in addition to commercial general liability insurance policy limits.
- 9. Such liability insurance shall include Cape Light Compact and Member Municipalities as additional insureds, but only for obligations arising out of this agreement.
- 10. The policies shall be endorsed to require that such additional insureds receive at least 30 days notice of cancellation or non-renewal.
- 11. Such insurance shall contain a standard separation of insureds clause, whereby the actions of one insured will not negate coverage for another insured.
- 12. Supplier shall provide Cape Light Compact with a certificate of insurance to evidence compliance with the requirements. Renewal certificates shall be provided automatically within 30 days of policy renewal throughout the term of the contract and two years following the contract term.

#### EXHIBIT E

### FORM OF SECURITY

.

#### PAYMENT GUARANTEE

#### January 26, 2006

#### To: The Cape Light Compact

#### Ladies and Gentlemen:

From time to time, Consolidated Edison Solutions, Inc. ("CES") may enter into one or more transactions with the Cape Light Compact ("Counterparty") for the sale of energy, capacity, and ancillary services, based on such terms and conditions set forth in the Competitive Electric Supply Agreement dated December 1, 2005, as amended from time to time (the "Agreement"). In consideration of Counterparty entering into the Agreement with CES, Consolidated Edison, Inc. ("Guarantor"), to the aggregate extent of \$3,500,000.00 (three million five hundred thousand DOLLARS) provided however, that CES' liability for consequential, punitive, or incidental damages or other such losses pursuant to Section 17.17 of the Agreement shall be limited to \$400,000.00 (four hundred thousand DOLLARS) (the "Guarantee Limit"), and subject to the terms and conditions hereof, hereby irrevocably and unconditionally guarantees to Counterparty, with effect from the date hereof, the due and punctual payment of all amounts payable as a result of CES' obligations under the Agreement, including without limitation any CES' indemnification obligation arising from Article 13 of the Agreement, when the same shall become due and payable, whether on scheduled payment dates, upon oral or written demand, upon declaration of termination or otherwise, in accordance with the terms of the Agreement and giving effect to any applicable grace or cure period. Upon failure of CES punctually to pay any such amounts, and upon written demand by Counterparty to Guarantor at its address set forth in the signature block of this Guarantee (or to such other address as Guarantor may specify in writing to Counterparty), Guarantor, subject to the Guarantee Limit, agrees promptly to pay or cause to be paid such amounts; provided that delay by Counterparty in giving such demand shall in no event affect Guarantor's obligations under this Guarantee. This is a guarantee of payment and not of collection.

Guarantor hereby agrees that its obligations hereunder shall not be affected by the Agreement's validity, enforceability or the lack of authority of CES to execute or deliver the Agreement, or any change in or amendment to the Agreement.

Guarantor hereby waives diligence, presentment, and demand on CES for payment or otherwise (except as provided hereinabove), filing of claims, requirement of a prior proceeding against CES and protest or notice, except as provided for in the Agreement with respect to amounts payable by CES. If at any time payment by CES to Counterparty under the Agreement is rescinded or must be otherwise restored or returned by Counterparty to CES due to the insolvency, bankruptcy or reorganization of CES or otherwise, Guarantor's obligations hereunder with respect to such payment shall be reinstated upon such restoration or return to CES being made by Counterparty. Guarantor represents to Counterparty as of the date hereof, that:

1. it is duly organized and validly existing under the laws of the jurisdiction of its incorporation and has full power and legal right to execute and deliver this Guarantee and to perform the provisions of this Guarantee on its part to be performed;

2. its execution, delivery and performance of this Guarantee have been and remain duly authorized by all necessary corporate action and do not contravene any provision of its certificate of incorporation or by-laws or any law, regulation or contractual restriction binding on it or its assets;

3. all consents, authorizations, approvals and clearances (including, without limitation, any necessary exchange control approval) and notifications, reports and registrations requisite for its due execution, delivery and performance of this Guarantee have been obtained from or, as the case may be, filed with the relevant governmental authorities having jurisdiction and remain in full force and effect and all conditions thereof have been duly complied with and no other action by, and no notice to or filing with, any governmental authority having jurisdiction is required for such execution, delivery or performance; and

4. this Guarantee is its legal, valid and binding obligation enforceable against it in accordance with its terms except as enforcement hereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting the enforcement of creditors' rights or by general equity principles.

In the event of any default by CES, Counterparty shall have the right to proceed first and directly against Guarantor under this Guarantee without proceeding against any other person or entity or exhausting any other remedies which it may have and without resorting to any other security held by it.

By accepting this Guarantee and entering into the Agreement, Counterparty agrees that Guarantor shall be subrogated to all rights of Counterparty against CES in respect of any amounts paid by Guarantor pursuant to this Guarantee.

This Guarantee shall be binding upon Guarantor and upon its successors and assigns and shall be for the benefit of Counterparty and its successors and assigns. Guarantor expressly acknowledges and agrees that the Counterparty and its members (as identified in the definition of "Member Municipalities" in the Agreement) are intended beneficiaries of this Guarantee.

This Guarantee and Guarantor's obligations hereunder will remain in force and effect until the third anniversary of the termination or expiration of the Agreement. However this Guarantee may be terminated upon at least 15 days' prior written notice to that effect being actually received by Counterparty. Such expiration or termination shall not, however, affect or reduce Guarantor's obligation hereunder for any liability of CES pursuant to the Agreement incurred prior to such expiration or termination.

In case any clause, provision, or section of this Guarantee, or any application thereof, is for any reason held to be illegal, invalid or inoperable, such illegality, invalidity or inoperability shall not affect the remainder thereof or any other clause, provision, or section, and each such clause, provision, or section shall be deemed to be effective and operative in the manner and to the full extent permitted by law.

This Guarantee shall not be binding and shall be null and void and without any force and effect unless and until it is fully executed and delivered by each of Guarantor and Counterparty.

This Guarantee shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts, without reference to its choice of law doctrine.

#### CONSOLIDATED EDISON, INC.

By: eph P/Oates

Vice President and Treasurer 4 Irving Place, Room 1611-S New York, NY 10003

**ACCEPTED AND AGREED:** By: Margaret T. Downey Administrator The Cape Light Compact

P.O. Box 427 Superior Courthouse Barnstable, MA 02630



Jorge J. Lopez President & Chief Executive Officer

August 14, 2006

VIA FIRST CLASS MAIL

Ms. Margaret Downey, Administrator Cape Light Compact P.O. Box 427 Superior Court House Barnstable, Massachusetts 02630



#### Re: Extension of Competitive Electric Supply Agreement (the "Agreement")

Dear Ms. Downey:

The purpose of this letter is to document that the Cape Light Compact (the "Compact") and Consolidated Edison *Solutions*, Inc. ("Con Edison Solutions") have agreed to extend the term of the Agreement pursuant to Section 4.4 of the Agreement which states as follows:

4.4 **Extension** - This Agreement may be extended beyond January 31, 2007, by mutual, written agreement of the Parties. Any new pricing terms shall be added to and replace Exhibit A as Exhibit A-2. Upon any such extension, this Agreement shall continue to be in effect, and all provisions of the Agreement shall retain the same force and effect as before the extension, unless it is terminated by either Party pursuant to the provisions of Article 4.2 or until the date stated in such extension,

New pricing terms have been agreed to in accordance with the above-stated clause. The final version of Exhibit A-2 is enclosed.

I understand that a copy of this letter and the enclosed exhibit will be made part of an appropriate informational filing with the Massachusetts Department of Telecommunications and Energy ("DTE"). As set forth in Exhibit A-2, the parties intend to give the exhibit confidential treatment, but Con Edison Solutions understands that the Compact cannot guarantee that DTE will treat the exhibit and the information contained therein as confidential. Ms. Margaret Downey August xx, 2006 Page 2 of 2

Please countersign this letter in duplicate and return one-fully executed original to me to affirm the Compact's assent to extension of the term of the Agreement and the new pricing terms set forth in the enclosed Exhibit A-2. Thank you.

Sincerely,

Jorge J. Lopez President & Chief Executive Officer

:jjd Enclosure

**ACCEPTED AND AGREED:** 

Awre Margaret TL Downey, Administrator, Cape Light Compact

2010-2012					
Budget (\$)	% Budget	Annual Savings (MWh)	% Savings		
\$23,115,804	55%	67,856	75%		
\$6,591,525	16%	3,531	4%		
\$12,316,861	29%	19,461	21%		
\$42,024,190	100%	90,848	100%		

Based on 3/13/09 budget estimate and 4/3/09 savings estimate



# **Cape Light Compact**

Tel: (508) 375-6648 · Fax (508) 362-4136

www.capelightcompact.org

OST OFFICE BOX 427 · BARNSTABLE SUPERIOR COURT HOUSE · BARNSTABLE, MASSACHUSETTS 02630

March 27, 2006

#### RE: New Price Terms Offered Under Cape Light Compact's Competitive Electric Supply Agreement

Dear

The Cape Light Compact (the "Compact") has agreed to amend the Competitive Electric Supply Agreement dated December 1, 2005 pursuant to which Consolidated Edison *Solutions*, Inc. ("Supplier") provides all-requirements power supply to the Compact's member municipalities and to consumers residing within the member municipalities (the "Agreement").

Under the Agreement as amended, the Supplier is offering new price terms to municipal account holders. These price terms are set forth in Exhibit A to this letter agreement which will become an appendix to Exhibit A of the Agreement. If you wish to take advantage of these new price terms, the following conditions apply:

1. The new pricing shall commence for each account on that account's April 2006 meter read date and terminate on each account's January 2007 meter read date.

2. You expressly waive your opt out rights currently available to you under the DTE regulations and the Agreement and commit all of your accounts for the term set forth above. The municipal accounts subject to this commitment are listed on the attached spreadsheet. Please review the spreadsheet. If there are any municipal accounts not listed on the spreadsheet, please add them. If the spreadsheet contains account numbers not under your authorization to contractually commit, please strike the account(s) from the list and return to me with the executed Agreement. Except as provided above, you hereby ratify, confirm and adopt all of the terms and conditions of the Agreement.

If you would like to take advantage of this offer and agree to the terms of service set forth in this letter agreement, please indicate your assent by signing below and returning the signed original of this letter to me no later than Monday, April 3, 2006.

As soon as the amendment to the Agreement is executed, a copy will be sent to you for your records. If you have any questions or would like to discuss this further, please call me at (508) 375-6636.

Sincerely,

Margaret<sup>T</sup>. Downey () Assistant County Administrator

ACCEPTED AND AGREED:

Name/Title:

#### EXHIBIT A TO LETTER AGREEMENT

#### APPENDIX TO EXHIBIT A OF THE AGREEMENT

#### PRICES AND TERMS FOR MUNICIPAL ACCOUNTS WHO AFFIRMATIVELY OPT-IN

- Start Date: All-Requirements Power Supply will commence for each account on that account's meter read date in April 2006.
- Term: The term for All-Requirements Power Supply will continue up to each account's meter read date in January 2007.
- Pricing: As indicated below, Supplier is providing the following price for each of the indicated classes of service for All-Requirements Power Supply:
  - All price offers are stated in dollars per megawatt-hour of metered retail sales. Price per kilowatt-hour of metered retail sales is in parentheses.
  - These prices do not include any applicable taxes
  - Price by Service Class:
    - \$99.90 / MWh (\$0.0999/kWh) for Small Commercial Customers (Rate Codes G-1, G-4, G-5, G-6, G-7, S-1)
    - \$99.90/ MWh (\$0.0999/kWh) for Industrial Customers (Rate Codes G-2 and G-3)

Waiver of Opt-out Rights: Consumers who have affirmatively opted in to the price and terms set forth in this appendix to Exhibit A waive their opt-out rights currently available to them under the DTE regulations and the Agreement and commit all of their accounts for the term above.

# **Disclosure Label**

Electric Power Suppliers are required by the Department of Telecommunications and Energy (DTE) to provide customers with a disclosure label. The label enables consumers to look at the energy sources, air emissions and information about the supplier in order to make a more informed choice of a power supplier. Consumers can compare energy labels to make the best choice based on their energy needs.



## Electricity Facts Cape Light Compact Cape Light Compact Green 50%<sup>SM</sup>



<b>Generation Price</b> Prices do not include regulated charges for customer service and delivery.	<i>Cape Light Compact Green 50%<sup>SM</sup></i> is 13.600 cents per kWh for residential customers, 14.180 cents per kWh for small commercial and industrial customers, and 12.900 cents per kWh for medium and large commercial and industrial customers (January 2009-April 2009).					
Contract	You may opt out of <i>Cape Light Compact Green 50%<sup>SM</sup></i> with no fee at any time by calling the Cape Light Compact at 1-800-381-9192.					
	Power Source	Known Resources	System Power	Total		
Power Sources	Hydro: Run of River	35%	0.5%	35%		
The information	Gas	0%	15.25%	15.25%		
contained in this label	Landfill Gas/Wind <sup>1</sup>	14%	0%	14%		
is based on the	Nuclear	0%	13.3%	13.3%		
projected performance	Coal	0%	5.95%	5.95%		
for the first 6 months of	Oil/Gas	0%	5.05%	5.05%		
Cape Light Compact	Oil	0%	2.8%	2.8%		
Green 50% <sup>SM</sup> . Actual	Wood/Refuse	0%	1.8%	1.8%		
performance data will	Hydro: Pump Storage	0%	1.65%	1.65%		
be reported once such	Other: System Mix	0%	1.4%	1.4%		
data is available.	Solar	1%	0%	1%		
1 The Compact reserves the	Hydro: Pondage	0%	0.75%	0.75%		
right to substitute all or some	Coal/Oil	0%	0.65%	0.65%		
landfill gas certificates with	Refuse	0%	0.6%	0.6%		
based wind projects expected	Small Generation	0%	0.3%	0.3%		
to come online in 2009.	TOTAL	50%	50%	100%		
<b>Air Emissions</b> Carbon Dioxide (CO <sub>2</sub> ), Nitrogen Oxide (NO <sub>x</sub> ) And Sulfur dioxide (SO <sub>2</sub> ) emission rates from these sources, relative to the regional average and to the emission rates of a new generating unit.	$\mathbf{CO}_{2}$ $\mathbf{NO}_{x}$ $\mathbf{SO}_{2}$ $\mathbf{NO}_{x}$ $\mathbf{V}$			Average Region Emission Rate	al	
Labor Information NOTES 1. Electricity customers in	n New England are served by an inte	grated power grid, not	particular generati	ng units. Howeve	r. vou can	

choose the types of electricity generating sources that will be associated with the electricity you use by selecting *Cape Light Compact Green*<sup>SM</sup>. The above information is based on information from contracted renewable energy generators. 2. You may call the Cape Light Compact at 1-800-381-9192 or the Massachusetts Department of Energy Resources at 1-617-626-7300.

#### Cape Light Compact Green 50%<sup>™</sup>

*Cape Light Compact Green 50%<sup>SM</sup>* matches half of your electricity use with cleaner, renewable resources. The information contained in this label is based on the projected performance for the first 6 months of *Cape Light Compact Green 50%<sup>SM</sup>*. Actual performance data will be reported once such data is available.

#### Definitions

#### **GENERATION PRICE AND CONTRACT:**

*Cape Light Compact Green 50%* <sup>SM</sup> costs are listed on page 1 of the Disclosure Label under "Generation Price." Customers may opt out of *Cape Light Compact Green 50%* <sup>SM</sup> at any time by calling 1-800-381-9192. There will be no fee to opt out.

#### POWER SOURCES:

The electricity you consume comes from the New England Power Grid, which receives power from a variety of power plants and transmits the power throughout the region as needed to meet the requirements of all customers in New England. The Cape Light Compact is responsible for purchasing power attributes in an amount equivalent to your electricity use. Known Resources include resources that are owned by, or under contract to the Cape Light Compact. System Power represents power purchased in the regional electricity market. Landfill Gas refers to gas generated by decomposition of organic material at landfill disposal sites. Hydro resources of less than 30 megawatts in size are deemed "small hydro". Solar refers to photovoltaic panels and wind refers to wind turbines.

#### EMISSIONS:

Emissions for each of the following pollutants are presented as a percent of the regional average emission rate. Arrows represent, for each pollutant, the emission rate from a hypothetical new generation facility.

**Carbon Dioxide** ( $CO_2$ ) is released when fossil fuels are burned. Carbon dioxide, a greenhouse gas, is a major contributor to global warming. Landfill gas generators release  $CO_2$ , but do not contribute to a net increase in atmospheric greenhouse gases.

**Nitrogen Oxides (NO<sub>x</sub>)** form when fossil fuels and biomass are burned at high temperatures. They contribute to acid rain and ground-level ozone (or smog), and may cause respiratory illness in children with frequent high level exposure. NO<sub>x</sub> also contribute to oxygen deprivation of lakes and coastal waters which is destructive to fish and other animal life.

**Sulfur Dioxide (SO<sub>2</sub>)** is formed when fuels containing sulfur are burned, primarily coal and oil. Major health effects associated with SO<sub>2</sub> include asthma, respiratory illness and aggravation of existing cardiovascular disease. SO<sub>2</sub> combines with water and oxygen in the atmosphere to form acid rain, which raises the acid level of lakes and streams, and accelerates the decay of buildings and monuments.

#### LABOR INFORMATION:

The information on this label regarding whether generators of suppliers operate under collective bargaining agreements is provided to inform you about whether the energy was produced in plants where employee wages and working conditions are mutually determined by employees and management, and protected by union contracts.

For more information Cape Light Compact: 1-800-381-9192
Department of Energy Resources (Executive Office of Energy and Environmental Affairs) 1-617-626-7300 Website:
http://www.mass.gov/?pageID=eoeeahomepage&L=1&L0=Ho me&sid=Eoeea
Department of Public Utilities (Executive Office of Energy and Environmental Affairs): 1-617-305-3500 Website:
http://www.mass.gov/?pageID=eoeeahomepage&L=1&L0=Ho me&sid=Eoeea



## cape light compact

powering cape cod & martha's vineyard

HOME :: Cape Light Compact Green June 12, 2009

## Cape Light Compact Green SM Pricing

This enrollment form is currently under construction. Please call 1-800-381-9192 to sign up for Cape Light Compact Green in the interim.

Please sign up for Cape Light Compact Green.

(1) Please check one:

Option (Please only check one of the following)	Price in cents per kWh
Residential 100%	14.300
Residential 50%	13.600
Small Commercial 100%	14.880
Small Commercial 50%	14.180
Large Commercial 100%	13.600
Large Commercial 50%	12.900

Name	(as it appears on your current NSTAR utility bill)
Company Name	(only include if applicable)
Check here if tax exempt	
Address	
City	
Zip Code	
Email Address	(for updates and notifications only)
Phone Number	
11 Digit NSTAR Account Number	To find your account numb

Check here if you are authorized as the account holder

How did you hear about us?

May we use your name to acknowledge your participation? Yes ‡

Submit



## cape light compact

powering cape cod & martha's vineyard

## Home Energy Audit

Our Home Energy Audit is an opportunity for residential customers to see the potential for energy saving measures and to commit to install energy saving improvements with the help of generous program incentives. The phone call and initial visit by our trained technician is free to you. An auditor will cover all the topics below and more, including: program education, evaluation of all energy end-users, and a comprehensive report tailored to each customer's needs. All Standard and Additional incentives (listed below) are offered ONLY in conjunction with an audit. To learn more about ways to save at home and to schedule an audit, call 1-800-797-6699.

#### STANDARD PROGRAM INCENTIVES (updated October, 2008)

Measure	Incentive
Domestic Hot Water (Electric and Non-Electric)	Free at time of initial audit
Electric Space Heat	Rebate of 75%
Non-Electric Space Heat *	Rebate of 75%, up to \$2,000
Halogen Torchiere Replacement	Replaced with a safer, more efficient lamp for FREE
Light Bulbs	Bulbs replaced throughout home
Refrigerators	\$150 replacement incentive, based on eligibility
Appliance Timers	Installed free for all eligible
Bill Disaggregation	Learn more about how much energy for the different portions of your home

\*Non-electric heat measures are not provided to customers with gas space heating. Gas heat customers are instead offered incentives through the National Grid gas energy efficiency program available by calling 800-292-2032.

ADDITIONAL INCENTIVES (as detailed below) revised as of October, 2008:

NEW:	Cape Light	Compact high	efficiency	oil/propane	heating system	rebate form	<b>Download</b>
------	------------	--------------	------------	-------------	----------------	-------------	-----------------

Measure	Gas Rebate through <mark>GasNetworks</mark> ** and Cape Light Compact	Oil/Propane Rebate	A.F.U.E.1
lf you install a new	And you heat with <i>Natural Gas</i> , your Rebate would be	Or if you heat with <i>Oil or Propane</i> your Rebate would be	But only if according to the Manufacturer the new system's Annual Efficiency (A.F.U.E.) is at least
High Efficiency Warm Air Furnace	\$100	\$100	92% for Gas 83% for Oil 90% for Propane
High Efficiency Warm Air Furnace with an Electronically Commutated Blower Motor (ECM)	\$400	\$400	92% for Gas 83% for Oil 92% for Propane
High Efficiency Steam Boiler	\$200	\$200	82% for Gas 82% for Oil 82% for Propane
High Efficiency Hot Water Boiler	\$500 rebate or \$1,000 for AFUE of 90% or greater.	\$500	85% for Gas 85% for Oil 85% for Propane
On-Demand or Indirect Water Heater	\$300	\$300	.82 EF for On-Demand N/A for Indirect
Heating System Controls	Please click here for info.	\$100 <u>Please click here for</u> <u>rebate form.</u>	N/A
ENERGY STAR® Windows (inc. Skylights)	\$10 with a cap of \$200	\$10 with a cap of \$200 <u>Please click here for</u> <u>rebate.</u>	N/A
ENERGY STAR® Sliders		\$10 included in \$200 window cap	N/A
ENERGY STAR®	\$150	\$150	
Refrigerators (based on eligibility by audit) Replacement Incentive			N/A
---------------------------------------------------------------------------	-----------------------------	-----------------------------------------------------------------------------------	-----
ENERGY STAR® Thermostats	\$25 (limit 2 per customer)	\$25 (limit 2 per customer) <u>Please click here for</u> <u>rebate form</u>	N/A

\*\* Please note the GasNetworks rebates are subject to change by the gas utility sponsors. Please visit

www.gasnetworks.com for further information including updated rebate levels.

1 A.F.U.E is a measure of how efficiently a heating system converts fuel into useful heat. The A.F.U.E. is the Annual Fuel Utilization Efficiency and takes into account the start-up and shut-down operating losses to reflect more realistic operating conditions. AFUE of model must be equal or greater than this value to be eligible for rebate.



## Cape Light Compact Energy News

Volume 1:Issue 1

June 2009

# twitter

Cape Light Compact is on Twitter! Follow us for energy related news and tips, plus share your ideas with us.



**NEW!** Cape Light Compact is offering a <u>\$50 ENERGY STAR Refrigerator Mail-</u> in <u>Rebate</u> for ENERGY STAR qualified refrigerators purchased between January 23 – December 31, 2009.

**NEW!** Cape Light Compact is also offering rebates for ENERGY STAR qualified Ductless Mini-Split and Central Air Conditioning equipment installed through December 31, 2009. Please contact Margaret Song at (508) 375-6843 or <u>msong@capelightcompact.org</u>. You can also visit our website for updates.



Cape Light Compact's 2009 Energy Efficiency Plan Approved

Cape Light Compact's comprehensive 2009 Energy Efficient Plan was approved by the MA Department of Public Utilities on Friday, May 29, 2009. The plan will dramatically expand our existing energy savings programs and introduce new and innovative programs for residential, business, and municipal customers across Cape Cod and Martha's Vineyard, including the popular residential home energy audits, new pilot programs like the Smart Home Energy Monitoring Project, new rebates and other financial incentives for energy efficient upgrades, green affordable homes, and energy education programs in our schools, just to name a few.

It also addresses the need to increase program funding to respond to the immediate summer season cooling demands (read about new REBATES in this newsletter). The Compact wants to know which programs are most valuable and beneficial to our customers, so we encourage all Cape Cod and Martha's Vineyard residents and businesses to let us know so we can incorporate your needs in future Energy Efficient plans. Please send us an email at info@capelightcompact.org or call 1-800-797-6699 with your suggestions.

#### Cape Light Compact's Smart Home Energy Monitoring Pilot Kicks Off

Cape Light Compact is committed to offering our community innovative solutions to saving energy, money and the environment. That is why we partnered with Grounded Power to launch the Smart Home Energy Monitoring Pilot Project – a breakthrough technology (and the first program of its kind being

### up your business - be a leader and save!

The GCEC provides the tools to help your business reduce greenhouse gas emissions by 10% over the next three years and gain statewide recognition for your efforts. Click on the GCEC logo above for more information.



#### Tune in to 92.1 WOMR's FOCUS ON ENERGY

Cape Light Compact brings you the latest news and insights on energy issues that affect the Cape and Vineyard. Listen the first Sunday of every month at 12:30 PM or listen to new and past programs anytime at http://www.capelightcompact.org/.

#### CAPE LIGHT COMPACT **MYTHBUSTERS:**

#### Why does Cape Light Compact purchase my power supply?

Cape Light Compact was formed in 1997 after the Massachusetts Restructuring Law authorized towns and cities to supply. Through the Compact, over 200,000 Cape Cod and Martha's Vineyard energy users have been able to band together to seek out the most competitive power supply price available, while representing regional interests as energy advocates for consumers. The

JUNE 12 is the last chance to sign offered in Massachusetts) that empowers you to make intelligent and meaningful energy choices that directly benefit you and ultimately our community.

> We would like to thank the 100 volunteers who signed up to participate in the pilot program. They are fully engaged in the process and excited to help shape the future of energy on Cape Cod and Martha's Vineyard. Over the course of the pilot, we hope to share some of their experiences and energy-saving tips with you. Check our website often for news and updates at http://www.capelightcompact.org/.

#### Program Changes to Cape Light Compact Green<sup>sm</sup>

The Green Communities Act has created many new and exciting green energy investment opportunities in Massachusetts through the newly formed Green Communities Division at the Department of Energy Resources. As a result of this transition, the Massachusetts Technology Collaborative (MTC) will discontinue their Clean Energy Choice Program, including the tax deduction and matching grants to cities and towns under Cape Light Compact Green<sup>sm</sup> effective July 1, 2009 in order to develop new green energy investment programs to benefit our local communities.

Although the MTC Clean Energy Choice program will end, Cape Light Compact will continue to provide Cape Light Compact Green<sup>sm</sup> as a Renewable Energy Certificate program. We are also pleased to announce that effective July 1, 2009, Cape Light Compact Green<sup>sm</sup> payments will be 100% tax deductible!

We hope your support for our program will continue during this transitional period as we make important changes to the Cape Light aggregate consumers to purchase power Compact Green<sup>sm</sup> program. Thanks to your support, we have increased demand for renewable energy resources located right here in Massachusetts and throughout New England.

#### Cape Light Compact and Local Schools Honored for **Energy Education Programs**

On June 9, 2009, Cape Light Compact along with state and local

Compact is a public entity and its mission is to serve the public interests.

In addition to bringing competitive market prices for electricity to the Cape and Vineyard, the Compact offers a variety of activities and programs to support regional energy efficiency and renewable power development and offer energy education to Cape and Vineyard students.

To date, Cape Light Compact has allowed us as a community to return over \$35 million in energy efficiency services to the residents and business of Cape Cod and Martha's Vineyard. These funds, with certainty, have been reinvested in our local economy instead of supporting energy efficiency projects in other utility service areas outside of our region.

officials will honor several Cape Cod and Martha's Vineyard students, teachers, and local schools for their outstanding energy education programs and outreach to their communities:

- Cindy McCann and Laura Perry Bourne Middle School Energy Savers
- Maggie Brown and the Eastham Elementary School's Green Energy Army
- Charles Bresnahan Cape Cod Regional Technical High School
- Sherry Greene-Starr and the Barnstable/West Barnstable Elementary School's Recycling Club
- Maureen Dwyer and Teaticket Elementary School's Energy Education Outreach Students
- S.P.I.T Forestdale School
- Cassandra Kloumann Chatham Middle School
- Students from Mr. Gil Newton's Environmental Science Class - Sandwich High School: Melissa Morrissey, Kendra Noll, Hira Rafiq, Michelle Sadeck, Carly Spink, Collin Sykes, Michael Watt
- Kara Gelinas Vineyard Energy Project
- Ryan Delgado, Senior Upper Cape Regional Technical High School

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Our telephone: 1-800-797-6699

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cribe <<Email Address>> from this list.

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