



# The Commonwealth of Massachusetts

## DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 09-116

January 28, 2010

Petition of Massachusetts Electric Company and Nantucket Electric Company, d/b/a National Grid, pursuant to G.L. c. 25, § 21 for approval by the Department of Public Utilities of its Three-Year Energy Efficiency Plan for 2010 through 2012.

---

D.P.U. 09-117

Petition of Fitchburg Gas and Electric Light Company, d/b/a Unitil, pursuant to G.L. c. 25, § 21 for approval by the Department of Public Utilities of its Three-Year Energy Efficiency Plan for 2010 through 2012.

---

D.P.U. 09-118

Petition of Western Massachusetts Electric Company, pursuant to G.L. c. 25, § 21 for approval by the Department of Public Utilities of its Three-Year Energy Efficiency Plan for 2010 through 2012.

---

D.P.U. 09-119

Petition of Towns of Aquinnah, Barnstable, Bourne, Brewster, Chatham, Chilmark, Dennis, Eastham, Edgartown, Falmouth, Harwich, Mashpee, Oak Bluffs, Orleans, Provincetown, Sandwich, Tisbury, Truro, Wellfleet, West Tisbury, Yarmouth, and the Counties of Barnstable and Dukes, acting together as the Cape Light Compact, pursuant to G.L. c. 25, § 21 for approval by the Department of Public Utilities of its Three-Year Energy Efficiency Plan for 2010 through 2012.

---

D.P.U. 09-120

Petition of NSTAR Electric Company, pursuant to G.L. c. 25, § 21 for approval by the Department of Public Utilities of its Three-Year Energy Efficiency Plan for 2010 through 2012.

---

APPEARANCES: Patricia Crowe, Esq.  
Brooke E. Skulley, Esq.  
Jennifer Brooks Hutchinson, Esq.  
National Grid  
40 Sylvan Road  
Waltham, Massachusetts 02451-1120

FOR: MASSACHUSETTS ELECTRIC COMPANY  
AND NANTUCKET ELECTRIC COMPANY  
D/B/A NATIONAL GRID  
Petitioner

Gary Epler, Esq.  
Unitil Services Company  
6 Liberty Lane West  
Hampton, New Hampshire 03842-1720

-and-

Kevin F. Penders, Esq.  
Keegan Werlin, LLP  
265 Franklin Street  
Boston, Massachusetts 02110

FOR: FITCHBURG GAS AND ELECTRIC LIGHT  
COMPANY  
Petitioner

Donald H. Wells, Jr., Esq.  
Stephen Klionsky, Esq.  
Western Massachusetts Electric Company  
100 Summer Street, 23<sup>rd</sup> Floor  
Boston, Massachusetts 02110

FOR: WESTERN MASSACHUSETTS ELECTRIC  
COMPANY  
Petitioner

Jeffery M. Bernstein, Esq.  
Jo Ann Bodemer, Esq.  
BCK LAW, P.C.  
One Gateway Center, Suite 851  
Newton, Massachusetts 02458

FOR: CAPE LIGHT COMPACT  
Petitioner

John K. Habib, Esq.  
David S. Rosenzweig, Esq.  
Kevin F. Penders, Esq.  
Keegan Werlin LLP  
265 Franklin Street  
Boston, Massachusetts 02110

FOR: NSTAR ELECTRIC COMPANY  
Petitioner

Martha Coakley, Attorney General  
Commonwealth of Massachusetts  
By: Danielle C. Rathbun  
Ronald J. Ritchie  
Assistant Attorneys General  
Office of Ratepayer Advocacy  
One Ashburton Place  
Boston, Massachusetts 02108  
Intervenor

Steven I. Venezia, Esq.  
Massachusetts Department of Energy Resources  
100 Cambridge Street, Suite 1020  
Boston, Massachusetts 02114

FOR: MASSACHUSETTS DEPARTMENT OF  
PUBLIC UTILITIES  
Intervenor

Jerrold Oppenheim, Esq.  
57 Middle Street  
Gloucester, Massachusetts 01930

FOR: LOW-INCOME WEATHERIZATION AND  
FUEL ASSISTANCE PROGRAM NETWORK,  
MASSACHUSETTS ENERGY DIRECTORS  
ASSOCIATION, AND THE LOW-INCOME  
ENERGY AFFORDABILITY NETWORK  
Intervenor

Jeremy McDiarmid, Esq.  
Danah Tench, Esq.  
Environment Northeast  
101 Tremont Street, Suite 401  
Boston, Massachusetts 02108

FOR: ENVIRONMENT NORTHEAST  
Intervenor in D.P.U. 09-116, D.P.U. 09-118, and  
D.P.U. 09-120

Eugene B. Benson, Esq.  
Sara C. Dana, Esq.  
James Kossuth, Esq.  
Alternatives for Community and Environment  
2181 Washington Street, Suite 301  
Roxbury, Massachusetts 02119

FOR: COMMUNITY LABOR UNITED, INC.  
Intervenor in D.P.U. 09-116, D.P.U. 09-118, and  
D.P.U. 09-120

Robert A. Rio, Esq.  
Associated Industries of Massachusetts  
P.O. Box 763  
222 Berkeley Street  
Boston, Massachusetts 02117

FOR: ASSOCIATED INDUSTRIES OF  
MASSACHUSETTS  
Limited Participant in D.P.U. 09-116,  
D.P.U. 09-118, and D.P.U. 09-120

Karen B. Roach, Esq.  
City of Boston  
City Hall, Room 615  
Boston, Massachusetts 02201

FOR: CITY OF BOSTON  
Limited Participant in D.P.U. 09-120 and  
D.P.U. 09-121

Robert Ruddock, Esq.  
Smith and Ruddock  
50 Congress Street, Suite 500  
Boston, Massachusetts 02109

FOR: THE ENERGY CONSORTIUM AND POWER  
OPTIONS  
Limited Participant in D.P.U. 09-116, and  
D.P.U. 09-120

Robert Ruddock, Esq.  
Smith and Ruddock  
50 Congress Street, Suite 500  
Boston, Massachusetts 02109

FOR: POWER OPTIONS  
Limited Participant D.P.U. 09-116, and  
D.P.U. 09-120

TABLE OF CONTENTS

EXECUTIVE SUMMARY .....xii

I. INTRODUCTION ..... 14

II. GREEN COMMUNITIES ACT ..... 18

    A. Introduction ..... 18

    B. Energy Efficiency Advisory Council ..... 19

    C. Department Of Public Utilities ..... 21

        1. Introduction ..... 21

        2. Program Cost-Effectiveness..... 22

        3. Program Authorization and Delivery..... 22

        4. Program Funding ..... 23

            a. Funding Source ..... 23

            b. Funding Allocation ..... 23

            c. Funding Mechanism ..... 24

III. ENERGY EFFICIENCY ADVISORY COUNCIL RESOLUTIONS ..... 24

    A. Introduction ..... 24

    B. Assessment Resolution ..... 25

    C. Evaluation Resolution ..... 25

    D. Savings and Incentive Resolution ..... 26

    E. Three-Year Plan Resolution..... 26

    F. Pilot Projects Budget Resolution ..... 27

IV. ENERGY EFFICIENCY SAVINGS GOALS ..... 27

    A. Introduction ..... 27

    B. Savings Goals in Statewide Plan ..... 27

    C. Program Administrator Savings Goals ..... 29

    D. Position of the Parties ..... 29

        1. Unutil ..... 29

        2. WMECo ..... 31

    E. Analysis and Findings..... 31

V. ENERGY EFFICIENCY PROGRAMS ..... 34

    A. Program Budgets ..... 34

        1. Statewide Budgets..... 34

        2. Program Administrator Budgets..... 35

            a. Budget Summary..... 35

            b. Program Implementation Costs..... 35

        3. Competitive Procurement ..... 36

        4. Position of the Parties ..... 36

- a. Three-Year Plan Budgets .....36
- b. Program Planning and Administration Costs .....37
- c. Competitive Procurement .....38
- d. Low-Income Program Budgets .....38
- e. Pilot Program Budgets .....38
- B. Program Cost-Effectiveness .....39
  - 1. Introduction .....39
  - 2. Avoided Cost Factors .....41
  - 3. Benefit Cost Ratios .....41
  - 4. Position of the Parties .....42
- C. Analysis and Findings .....44
  - 1. Program Budgets .....44
    - a. Introduction .....44
    - b. Program Planning and Administration Costs .....44
    - c. Low-Income Program Budgets .....46
    - d. Competitive Procurement .....46
    - e. Pilot Programs .....47
  - 2. Cost-Effectiveness .....48
    - a. Introduction .....48
    - b. Method to Determine Cost-Effectiveness .....49
    - c. Non-Electric Benefits .....50
    - d. Avoided Cost Factors .....52
      - i. DRIPE .....52
      - ii. Distribution and Transmission .....53
    - e. Program Cost-Effectiveness .....54
- VI. FUNDING .....55
  - A. Introduction .....55
  - B. System Benefits Charge .....56
  - C. Forward Capacity Market .....56
  - D. Regional Greenhouse Gas Initiative .....57
  - E. Outside Funding .....58
  - F. Energy Efficiency Surcharge .....59
  - G. Positions of the Parties .....59
    - 1. Program Administrators .....59
    - 2. Attorney General .....61
    - 3. DOER .....62
    - 4. TEC .....63
    - 5. ENE .....63
    - 6. AIM .....63
  - H. Analysis and Findings .....64
    - 1. Introduction .....64

- 2. Proceeds from the Forward Capacity Market .....65
- 3. Regional Greenhouse Gas Initiative Proceeds .....66
- 4. Outside Funding Sources .....67
- 5. Energy Efficiency Surcharge .....69
- 6. Energy Efficiency Surcharge Adjustments .....72
- 7. Carryover Funds .....72
- 8. Federal Stimulus Funds .....73
- 9. RCS Funds .....73
  
- VII. BILL IMPACTS .....74
  - A. Introduction .....74
  - B. Bill Impact Model.....75
  - C. Program Administrator Proposals.....76
  - D. Positions of the Parties .....77
    - 1. Program Administrators .....77
    - 2. Attorney General.....79
    - 3. DOER.....80
    - 4. ENE .....81
    - 5. TEC .....82
    - 6. AIM .....82
  - E. Analysis and Findings.....84
    - 1. Green Communities Act .....84
    - 2. Bill Impact Model.....86
    - 3. Bill Impacts .....88
      - a. Introduction .....88
      - b. Findings .....88
    - 4. Other Issues .....91
  
- VIII. PERFORMANCE INCENTIVES .....93
  - A. Introduction .....93
  - B. Statewide Performance Incentive Mechanism.....93
    - 1. Statewide Incentive Pool and Allocation to Program Administrators....93
    - 2. Proposed Incentive Mechanism .....95
      - a. Introduction .....95
      - b. Savings Mechanism .....95
      - c. Value Mechanism .....96
      - d. Performance Metrics .....97
  - C. Program Administrator Performance Incentives.....99
    - 1. Calculation of Incentives by Component .....99
    - 2. Until .....101
    - 3. Modifications as a Result of EM&V Studies.....103
  - D. Position of the Parties .....103



- 1. Program Administrators ..... 103
- 2. Attorney General..... 106
- 3. DOER..... 108
- 4. ENE ..... 108
- E. Analysis and Findings..... 109
  - 1. Introduction ..... 109
  - 2. Proposed Mechanism..... 111
    - a. Statewide Incentive Pool..... 111
    - b. Components..... 112
    - c. Savings and Value Payout Rates ..... 113
    - d. Allocation of Statewide Pool to Program Administrators..... 114
    - e. Unutil ..... 116
  - 3. Performance Metrics ..... 117
    - a. Introduction ..... 117
    - b. Distinct and Clear Role ..... 118
    - c. Verifiable Goals..... 119
    - d. Baseline Information ..... 120
    - e. Other Issues..... 122
    - f. Conclusion ..... 122
  - 4. Incentive Caps ..... 123
  - 5. Conclusion ..... 124
- IX. EVALUATION MEASUREMENT AND VERIFICATION ..... 125
  - A. Introduction ..... 125
  - B. Positions of the Parties ..... 127
    - 1. Program Administrators ..... 127
    - 2. Attorney General..... 128
  - C. Analysis and Findings..... 128
    - 1. Introduction ..... 128
    - 2. Non-Electric Benefits ..... 130
    - 3. Reporting Requirements and Third-Party Audits..... 131
- X. MIDTERM MODIFICATIONS..... 134
  - A. Introduction ..... 134
  - B. Positions of the Parties ..... 135
    - 1. Program Administrators ..... 135
    - 2. Attorney General..... 139
    - 3. DOER..... 140
  - C. Analysis and Findings..... 140
- XI. OTHER ISSUES ..... 144
  - A. Community Labor United ..... 144

- 1. Introduction ..... 144
- 2. On-Bill Financing ..... 145
  - a. Positions of the Parties..... 145
    - i. CLU..... 145
    - ii. Program Administrators and LEAN..... 145
  - b. Analysis and Findings..... 147
- 3. Community-Driven Outreach ..... 148
  - a. Positions of the Parties..... 148
    - i. CLU..... 148
    - ii. Program Administrators and LEAN..... 148
  - b. Analysis and Findings..... 149
- 4. Job Creation ..... 150
  - a. Positions of the Parties..... 150
    - i. CLU..... 150
    - ii. Program Administrators and LEAN..... 151
  - b. Analysis and Findings..... 152
- 5. Equity Metrics..... 153
  - a. Positions of the Parties..... 153
    - i. CLU..... 153
    - ii. Program Administrators and LEAN..... 154
  - b. Analysis and Findings..... 155
- 6. Representation on Working Groups ..... 156
  - a. Positions of the Parties..... 156
    - i. CLU..... 156
    - ii. Program Administrators and LEAN..... 156
  - b. Analysis and Findings..... 157
- B. Cape Light Compact..... 158
  - 1. Municipal Aggregator..... 158
    - a. Establishing a Load Aggregation Program ..... 158
    - b. Consistency with State Energy Efficiency Goals ..... 159
  - 2. Municipal Incentives ..... 161
- XII. SUMMARY AND CONCLUSION ..... 162
- XIII. ORDER..... 166
- XIV. APPENDIX ..... 168
  - A. Table 1: Statewide Energy Savings Goals ..... 168
  - B. Table 2: Program Administrator Energy Savings Goals ..... 169
  - C. Table 3a: Statewide Program Budgets..... 170
  - D. Table 3b: Statewide Pilot Program Budgets..... 171
  - E. Table 3c: Statewide Hard-to-Measure Initiative Budgets ..... 172

- F. Table 4: Program Administrator Budgets..... 173
- G. Table 5: Program Administrator Program Planning & Administration Costs 174
- H. Table 6: Program Administrator Competitive Procurement..... 175
- I. Table 7a: Program Administrator Cost-Effectiveness ..... 176
- J. Table 7b: Program Administrator Cost-Effectiveness ..... 177
- K. Table 8: Statewide Program Cost-Effectiveness ..... 178
- L. Table 9: Program Administrator Funding Sources..... 179

## EXECUTIVE SUMMARY

In today's Order, the Department approves the Three-Year Plans for energy efficiency of the Commonwealth's electric distribution companies and the Cape Light Compact ("Program Administrators"), commencing a new era of prudently managing energy consumption, addressing the challenge of climate change, and fostering growth in jobs and economic output within the state. The Three-Year Plans stem from the requirements of the Green Communities Act, passed by the Legislature and signed into law by Governor Patrick in July 2008. The Three-Year Plans were developed through a comprehensive effort involving our state's energy industry stakeholders and directed by the Department of Energy Resources. The Three-Year Plans detail benefits to Massachusetts residents and businesses including billions of dollars of net energy savings, a significant number of new energy sector jobs, and lower energy bills that flow directly from energy efficiency program implementation.

The Three-Year Plans approved today are consistent with the directives of the Green Communities Act, which enhance in four important ways the Commonwealth's long and successful history (dating back to the 1980s) of delivering energy efficiency services. First, the Act establishes a statewide framework that each Program Administrator will work within to deliver energy efficiency services, improving the effectiveness and efficiency of these services. Second, the Act establishes an Energy Efficiency Advisory Council, comprised of eleven voting members representing the full spectrum of stakeholder perspectives, to work with the Program Administrators in developing a statewide energy efficiency plan. Third, the Act mandates comprehensive three-year energy efficiency plans, rather than the one-year plans that had previously been required. Finally and most importantly, the Act requires that Program Administrators acquire all available cost-effective energy efficiency and demand reduction resources in the Commonwealth.

The Three-Year Plans highlight significant benefits associated with implementation of the proposed energy efficiency programs. On a statewide basis, including the natural gas efficiency programs also approved today, the Three-Year Plans are expected to provide net benefits of approximately \$3.9 billion, resulting in almost three dollars in benefits for every dollar spent, over the lifetime of the efficiency measures installed. Total lifetime energy savings associated with the proposed energy efficiency programs will cost roughly 4.6 cents/kWh for electric efficiency programs, and 31 cents/therm for natural gas efficiency programs, well below the cost of the traditional energy resources that would otherwise need to be purchased by consumers. In addition, the energy efficiency programs in the Three-Year Plans are expected to reduce statewide carbon dioxide emissions by roughly 15 million tons and create nearly 3,900 local jobs throughout the lifetime of the measures installed in Massachusetts.

In this Order, the Department approves each Program Administrator's proposed budget and energy savings target for the years 2010 through 2012, and finds that the proposed energy efficiency programs are cost-effective. Consistent with the Act's mandate that the Program

Administrators acquire all available cost-effective energy efficiency resources, the proposed energy savings represent considerable increases over those energy savings achieved in prior years.

In addition to approving the proposed program budgets and savings targets, the Department makes several other findings and directives:

- We find that each Program Administrator may implement its proposed Energy Efficiency Surcharge, and that the estimated bill impacts associated with these charges are modest and well within the range of what we consider to be reasonable.
- We approve the performance incentive mechanism proposed by the Program Administrators, with several important exceptions. First, we impose additional caps on the incentives. Second, we require the Program Administrators to resubmit their performance metrics to the Department for further review, with modifications to make them consistent with the principles outlined in our Energy Efficiency Guidelines.
- We approve the evaluation, measurement and verification plans proposed by the Program Administrators. However, we direct them to evaluate their assumptions regarding non-electric benefits, avoided transmission and distribution costs, and savings associated with oil heat efficiency measures in order to develop more up-to-date and well-documented estimates for future planning purposes.
- We direct the Program Administrators to submit more complete information on outside funding sources in order for the Department to assess and approve their proposed outside funding sources for 2011 and 2012.
- We will convene a working group to make recommendations with regard to the timing, format and review of Annual Reports, midterm modification filings, and Energy Efficiency Surcharge filings.

The Three-Year Plans that we approve today, along with the additional directives and modifications outlined in this Order, create a solid foundation for Program Administrators to undertake an aggressive and sustained effort to achieve all cost-effective energy efficiency opportunities in the Commonwealth.

## I. INTRODUCTION

On July 2, 2008, An Act Relative to Green Communities, Acts of 2008, chapter 169 (“Green Communities Act” or “Act”) was signed into law. The Green Communities Act mandates significant changes to the energy efficiency programs developed and administered by the Commonwealth’s electric and gas distribution companies and municipal aggregators. Specifically, all electric and gas distribution companies and municipal aggregators are required to develop energy efficiency plans that provide for the acquisition of all available energy efficiency and demand reduction resources that are cost-effective or less expensive than supply. G.L. c. 25, § 21. To accomplish this goal, electric and gas distribution companies and municipal aggregators are required to develop three-year energy efficiency plans and submit such plans to the Department of Public Utilities (“Department”) for review.

Consistent with the Act, on October 30, 2009, Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid (“National Grid”), Fitchburg Gas and Electric Light Company d/b/a Unitil (“Unitil”), Western Massachusetts Electric Company (“WMECo”), the towns of Aquinnah, Barnstable, Bourne, Brewster, Chatham, Chilmark, Dennis, Eastham, Edgartown, Falmouth, Harwich, Mashpee, Oak Bluffs, Orleans, Provincetown, Sandwich, Tisbury, Truro, Wellfleet, West Tisbury, Yarmouth, and the Counties of Barnstable and Dukes, acting together as the Cape Light Compact (“Compact”), and NSTAR Electric Company (“NSTAR Electric”) (together, “Program Administrators”) filed with the Department individual three-year electric energy efficiency plans for calendar

years 2010 through 2012 (“Three-Year Plans”).<sup>1</sup> The Program Administrators filed their Three-Year Plans pursuant to G.L. c. 25, §§ 19-21, G.L. c. 25A § 11G and Investigation by the Department of Public Utilities on its own Motion into Updating its Energy Efficiency Guidelines Consistent with An Act Relative to Green Communities, D.P.U. 08-50 (2008); D.P.U. 08-50-A (2009); D.P.U. 08-50-B (2009) (“Guidelines”). The Program Administrators each seek approval of: (1) their individual Three-Year Plans, including the proposed program budgets and cost-effectiveness; (2) recovery of costs associated with implementing the energy efficiency programs; and (3) a proposed performance incentive mechanism.

Pursuant to notice duly issued, the Department held a joint public hearing<sup>2</sup> on November 30, 2009. Comments were received from the Massachusetts Energy Consumers Alliance; District Council 35 of the International Union of Painters and Allied Trades; Laborers International Union of North America; Boston Climate Action Network; Community Labor United; and Low-Income Weatherization and Fuel Assistance Program Network, the Massachusetts Energy Directors Association, and the Low-Income Energy Affordability Network (together, “LEAN”) (Tr. A at 9-30).

On October 30, 2009, the Attorney General of the Commonwealth of Massachusetts (“Attorney General”) filed a notice of intervention pursuant to G.L. c. 12, § 11E in each Three-Year Plan docket. On November 6, 2009, the Department granted intervenor status to

---

<sup>1</sup> The Department docketed these matters as follows: (1) D.P.U. 09-116 for National Grid; (2) D.P.U. 09-117 for Unitil; (3) D.P.U. 09-118 for WMECo; (4) D.P.U. 09-119 for the Compact; and (5) D.P.U. 09-120 for NSTAR Electric.

<sup>2</sup> The Department held one joint public hearing on all of the Program Administrators’ filings. These cases, however, are not consolidated and remain separate proceedings.

the Massachusetts Department of Energy Resources (“DOER”) and LEAN in each Three-Year Plan docket.<sup>3</sup> On November 6, 2009, the Department granted intervenor status to Environment Northeast (“ENE”) and Community Labor United (“CLU”) in D.P.U. 09-116, D.P.U. 09-118, and D.P.U. 09-120.<sup>4</sup> On November 6, 2009, the Department granted limited participant status to Associated Industries of Massachusetts (“AIM”) in D.P.U. 09-116, D.P.U. 09-118, and D.P.U. 09-120.<sup>5</sup> On November 18, 2009, the Department granted limited participant status to PowerOptions and The Energy Consortium (“TEC”) in D.P.U. 09-116, and D.P.U. 09-120. D.P.U. 09-116, Stamp-Approval (November 18, 2009); D.P.U. 09-120, Stamp-Approval (November 18, 2009). On November 18, 2009, the Department granted limited participant status to the City of Boston in D.P.U. 09-120. D.P.U. 09-120, Stamp-Approval (November 18, 2009).

---

<sup>3</sup> Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid, D.P.U. 09-116, Stamp-Approval (November 6, 2009); Fitchburg Gas and Electric Light Company d/b/a Unitil, D.P.U. 09-117, Stamp-Approval (November 6, 2009); Western Massachusetts Electric Company, D.P.U. 09-118, Stamp-Approval (November 6, 2009); Cape Light Compact, D.P.U. 09-119, Stamp-Approval (November 6, 2009); NSTAR Electric Company, D.P.U. 09-120, Stamp-Approval (November 6, 2009).

<sup>4</sup> D.P.U. 09-116, Stamp-Approval (November 6, 2009); D.P.U. 09-118, Stamp-Approval (November 6, 2009); D.P.U. 09-120, Stamp-Approval (November 6, 2009).

<sup>5</sup> D.P.U. 09-116, Stamp-Approval (November 6, 2009); D.P.U. 09-118, Stamp-Approval (November 6, 2009); D.P.U. 09-120, Stamp-Approval (November 6, 2009).



The Department held evidentiary hearings on December 1, 2009, through December 11, 2009.<sup>6</sup> The Attorney General, DOER, and LEAN filed briefs in each Three-Year Plan docket. ENE and CLU filed briefs in D.P.U. 09-116, D.P.U. 09-118, and D.P.U. 09-120. AIM filed a brief in D.P.U. 09-116, D.P.U. 09-118, and D.P.U. 09-120. PowerOptions and TEC filed briefs in D.P.U. 09-116, and D.P.U. 09-120. The City of Boston filed a brief in D.P.U. 09-120. In addition, each Program Administrator filed a brief in their respective docket. The Attorney General, DOER, and LEAN filed reply briefs in each Three-Year Plan docket. ENE and CLU filed reply briefs in D.P.U. 09-116, D.P.U. 09-118, and D.P.U. 09-120. AIM filed a reply brief in D.P.U. 09-116, D.P.U. 09-118, and D.P.U. 09-120. PowerOptions and TEC filed reply briefs in D.P.U. 09-116, and D.P.U. 09-120. The City of Boston filed a reply brief in D.P.U. 09-120. In addition, each Program Administrator filed a reply brief in their respective docket. The evidentiary record for D.P.U. 09-116 consists of 233 exhibits and 22 responses to record requests. The evidentiary record for D.P.U. 09-117 consists of 176 exhibits and 15 responses to record requests. The evidentiary record for D.P.U. 09-118 consists of 207 exhibits and 25 responses to record requests. The evidentiary record for D.P.U. 09-119 consists of 132 exhibits and 38 responses to record requests. The evidentiary record for D.P.U. 09-120 consists of 223 exhibits and 26 responses to record requests.

---

<sup>6</sup> With the agreement of the parties, the Department held joint evidentiary hearings on December 1, 2, 3, and 11, 2009, on common issues related to the statewide three-year gas and electric energy efficiency plans. The Department also held company-specific evidentiary hearings on each Program Administrator's individual filing, on December 4, 2009, through December 10, 2009.

## II. GREEN COMMUNITIES ACT

### A. Introduction

The goal of the Green Communities Act is to significantly enhance the development of energy efficiency and renewable energy in Massachusetts. Green Communities Act, Preamble. As noted above, the Green Communities Act requires all Program Administrators to develop energy efficiency plans that will “provide for the acquisition of all available energy efficiency and demand reduction resources that are cost-effective or less expensive than supply.” G.L. c. 25, § 21(b)(1). To accomplish this goal, the Green Communities Act establishes an Energy Efficiency Advisory Council (“Council”)<sup>7</sup> and directs Program Administrators, in coordination with the Council, to prepare a three-year, statewide energy efficiency plan (“Statewide Plan”). The Statewide Plan is subsequently disaggregated into individual Program Administrator Three-Year Plans before undergoing regulatory review by the Department. G.L. c. 25, §§ 21, 22.<sup>8</sup>

---

<sup>7</sup> The Council’s eleven voting members represent the following interests: residential consumers; the low-income weatherization and fuel assistance program network; the environmental community; businesses, including large commercial and industrial end-users; the manufacturing industry; energy efficiency experts; organized labor; the Commonwealth of Massachusetts Department of Environmental Protection; the Attorney General; the Commonwealth of Massachusetts Executive Office of Housing and Economic Development; and DOER. G.L. c. 25, § 22(a). The Council membership also includes one non-voting member from each Program Administrator, one from the heating and oil industry, and one from energy efficiency businesses. G.L. c. 25, § 22(a).

<sup>8</sup> Given the significant changes related to the delivery of energy efficiency mandated by the Green Communities Act, the Department opened an investigation to update the energy efficiency guidelines that were established in Investigation to Establish Methods and Procedures to Evaluate and Approve Energy Efficiency Programs, D.T.E. 98-100 (2000) (“D.T.E. 98-100 Guidelines”). D.P.U. 08-50; D.P.U. 08-50-A;

The Green Communities Act establishes a coordinated process for the preparation through the review of the Three-Year Plans. The Act creates separate yet complementary responsibilities for the Council and the Department, with the Program Administrators participating throughout the process. The Council process shapes the development of the Statewide Plan and is more fully described below. Ultimately, the Department is charged with ensuring that electric and gas resource needs are first met through all available energy efficiency and demand reduction resources that are cost-effective or less expensive than supply in order to mitigate capacity and energy costs for all customers. G.L. c. 25, § 21(a).

B. Energy Efficiency Advisory Council

Electric Program Administrators, working with the Council, must prepare a three-year electric Statewide Plan designed to achieve the Act's goal of acquiring all available cost-effective energy efficiency and demand reduction resources. G.L. c. 25, § 21(b)(1). To this end, the Green Communities Act prescribes that the Statewide Plan include the following components:

- An assessment of lifetime cost, reliability and magnitude of the resources that are cost-effective or less expensive than supply;
- The amount of resources that are proposed to be acquired under the plan;
- The estimated energy cost savings, including reductions in energy and capacity costs, increases in rate stability, and affordability for low-income consumers that will accrue to energy and gas consumers;
- Program descriptions;

- A proposed mechanism that provides distribution companies with performance incentives based on success in meeting or exceeding the plan's goals;
- The budget needed to support the programs;
- A fully reconciling funding mechanism;
- The estimated peak-load reduction and any estimated economic benefits for such projects, including job retention, job growth, or economic development; and
- Data reflecting the percent of funds collected that will be used for direct consumer benefit (e.g., incentives and technical assistance to carry the plan).

G.L. c. 25, § 21(b)(2). In addition, the Statewide Plan may include, with Council approval, a mechanism to prioritize projects that have substantial benefits in reducing peak load, reducing energy consumption or costs of municipalities or governmental bodies, or that have economic development, job creation or job retention benefits. G.L. c. 25, § 21(b)(2).

As noted above, the Statewide Plan must describe its energy efficiency programs; these programs may include, but are not limited to, the following:

- Efficiency and load management programs;
- Demand response programs;
- Programs for research, development, and commercialization of products or processes which are more energy-efficient than those generally available;
- Programs for the development of markets for such products and processes, including recommendations for new appliance and product efficiency standards;
- Programs providing support for energy use assessment, real time monitoring systems, engineering studies and services related to new construction or major building renovation, including integration of such assessments, systems, studies and services related to new construction or major building renovation, including integration of such assessments, systems, studies and services with building energy codes programs and processes, or those regarding the development of high performance or sustainable buildings that exceed code;

- Programs for the design, manufacture, commercialization and purchase of energy-efficient appliances and heating, air conditioning and lighting devices;
- Programs for planning and evaluation;
- Programs providing commercial, industrial and institutional customers with greater flexibility and control over demand-side investments funded by the programs at their facilities; and
- Programs for public education regarding energy efficiency and demand management.

G.L. c. 25, § 21(b)(2).

The Statewide Plan must be submitted to the Council every three years, by April 30; the Council then has three months to review the Statewide Plan and submit its approval or comments on the Statewide Plan to the Program Administrators. G.L. c. 25, § 21(c). If not approved, Program Administrators may change the Statewide Plan to reflect the Council's input. G.L. c. 25, § 21(c). After the Council process, the Program Administrators must, by October 31, submit their respective Three-Year Plans to the Department together with the Council's approval or comments and a statement of any unresolved issues. G.L. c. 25, § 21(d)(1).

C. Department Of Public Utilities

1. Introduction

Once the Three-Year Plans have been filed with the Department, the Green Communities Act requires the Department to conduct a public hearing to allow interested persons to be heard on the plans. G.L. c. 25, § 21(d)(1). The Department must, within 90-days of the filing date, approve, modify or reject and require the resubmission of the Three-Year Plan. G.L. c. 25, § 21(d)(2).

In approving a Program Administrator's Three-Year Plan, the Department must ensure that the Program Administrator has identified and will capture all energy efficiency and demand reduction resources that are cost-effective or less expensive than supply. G.L. c. 25, § 19(d)(2). To this end, the Department must make the determinations discussed in the sections below.

2. Program Cost-Effectiveness

The Department must screen the energy efficiency programs contained within the Three-Year Plans for cost-effectiveness to ensure that programs are designed to obtain energy savings and system benefits with value greater than program costs. G.L. c. 25, § 21(b)(3). In D.P.U. 08-50-A, the Department reaffirmed that the Total Resource Cost ("TRC") test is the appropriate test for evaluating the cost-effectiveness of energy efficiency programs.<sup>9</sup> D.P.U. 08-50-A at 14.

3. Program Authorization and Delivery

In authorizing energy efficiency programs, the Department is charged with ensuring that: (1) the programs are delivered cost-effectively, capturing all available energy efficiency opportunities; (2) Program Administrators have minimized administrative costs to the fullest extent practicable; and (3) Program Administrators will use competitive procurement processes to the fullest extent practicable. G.L. c. 25, §§ 19(a) and (b).

---

<sup>9</sup> The TRC test includes all benefits and costs associated with the energy system, as well as all benefits and costs associated with the energy efficiency program participants. D.P.U. 08-50, at 15. Because the TRC test includes the avoided cost of supply as one of the most significant program benefits, this test satisfies the Act's requirement that, among other things, energy efficiency programs be less expensive than supply. D.P.U. 08-50-A at 14.

4. Program Funding

a. Funding Source

Consistent with the Green Communities Act, the Department's Guidelines specify that electric Program Administrators fund energy efficiency plan implementation from the following sources: (1) the mandatory 2.5 mills per kilowatt-hour ("kWh") system benefits charge ("SBC"); (2) revenues from the forward capacity market ("FCM") administered by Independent System Operator-New England ("ISO-NE"); (3) revenues from cap and trade pollution control programs; (4) other funding sources; and (5) an energy efficiency surcharge ("EES"). Guidelines § 3.2.1; G.L. c. 25, § 19(a). If sufficient funding to meet the Act's energy efficiency goals is not available from the first four funding sources, the Department may approve the collection of additional funding from consumers after considering the rate and bill impacts on consumers and whether past programs have lowered the cost of electricity. G.L. c. 25, § 19(a). Further, the Guidelines require that a Program Administrator's Three-Year Plan present information regarding rate and average bill impacts consistent with criteria articulated in D.P.U. 08-50-A. Guidelines § 3.2.1.6.3.

b. Funding Allocation

Under the Green Communities Act, the Department must ensure that energy efficiency funds are allocated to all sectors<sup>10</sup> in proportion to each sector's contribution to the funds, provided, however, that the low-income sector is allocated at least ten percent of the funds for

---

<sup>10</sup> For purposes of this Order and implementing energy efficiency programs, we refer to groups of customer classes as "sectors." Energy efficiency program sectors include residential, low-income, and commercial and industrial customer classes.

electric energy efficiency programs and 20 percent of the funds for gas energy efficiency programs. G.L. c. 25, § 19(c).

c. Funding Mechanism

Once the amount of funding and its allocation have been established, the Department must approve a fully reconciling funding mechanism for the Three-Year Plan. G.L. c. 25, § 21(d)(2). This mechanism -- known as EES -- is calculated as prescribed in the Guidelines and collected through the energy efficiency reconciliation factor ("EERF").

Guidelines §§ 2(9) and 3.2.1.6.<sup>11</sup>

III. ENERGY EFFICIENCY ADVISORY COUNCIL RESOLUTIONS

A. Introduction

As required by the Green Communities Act, the Council worked with the Program Administrators in developing demand resource program plans and budgets. G.L. c 25, § 22(b). Throughout the process, the Council issued several resolutions related to the development of the Three-Year Plans, including: (1) All Available Cost-Effective Electric and Gas Savings Assessment Resolution ("Assessment Resolution"); (2) Evaluation, Measurement,

---

<sup>11</sup> Consistent with a proposal made by the Attorney General with support from Program Administrators, to investigate any issues related to the EERF tariffs in separate dockets, and in the interest of administrative efficiency, the Department directed each electric Program Administrator to file, no later than February 1, 2010, a revised EERF tariff with all documentation necessary for the Department to establish revised EERFs. See Investigation by the Department of Public Utilities on its own Motion into Updating its Energy Efficiency Guidelines, D.P.U. 08-50, Attorney General Comments, September 22, 2009, at 3; Program Administrators' Comments, September 29, 2009, at 3; NSTAR Electric Company and NSTAR Gas Company Comments, September 29, 2009; NSTAR Electric Company, D.P.U. 08-117-B at 2-4 (2009); Western Massachusetts Electric Company, D.P.U. 08-118-A at 2-4 (2009); Unitil, D.P.U. 08-126, at 2-4 (2009); National Grid, D.P.U. 08-129-A at 2-4 (2009).



and Verification Resolution (“Evaluation Resolution”); (3) Statewide Savings Targets and Performance Incentive Resolution (“Savings and Incentive Resolution”); (4) Three-Year Plan Resolution; and (5) Pilot Budget Resolution (See Exh. Common 1, at 4-6). Each resolution is discussed below.

B. Assessment Resolution

On July 14, 2009, the Council approved a resolution memorializing its estimate of the savings it expects can be achieved from all available cost-effective energy efficiency and combined heat and power (“CHP”) in Massachusetts, over the course of the Three-Year Plans (Exh. Common 1, at 354-355). The Council agreed that, as a percent of retail sales, (1) approximately 2.5 percent in kWh savings could be achieved over the three-year plan period for electric energy efficiency programs, and (2) CHP could provide 0.3 percent to 0.5 percent in kWh savings (Exh. Common 1, at 354-355). Further, the Council agreed that a detailed potential study or set of targeted studies will be performed in 2011 and that an updated assessment of all available cost-effective energy efficiency will be prepared in connection with the three-year plans for 2013 through 2015 (Exh. Common 1, at 354-355).

C. Evaluation Resolution

On September 8, 2009, the Council approved a resolution establishing statewide principles and policies for evaluating, monitoring, and verifying the costs, savings, and spending associated with the Program Administrators’ energy efficiency programs (Evaluation Resolution at 1). The Evaluation Resolution establishes an oversight role for the Council over evaluation, monitoring, and verification (“EM&V”) activities to ensure that objective,

independent, consistent, and credible information on energy efficiency programs will be presented to the Department (Evaluation Resolution at 1).

D. Savings and Incentive Resolution

On October 6, 2009, the Council approved a resolution establishing statewide:

(1) kWh savings targets; (2) total available performance incentives; (3) program costs per annual kWh saved; and (4) outside funding targets (Savings and Incentive Resolution at 1).

E. Three-Year Plan Resolution

On October 27, 2009, the Council approved a resolution memorializing its position that the Statewide Plan is consistent with all requirements of the Green Communities Act (Three-Year Plan Resolution at 3). Specifically, the Council resolved that: (1) the Statewide Plan has a greater focus on customers and long-term goals than previous Program Administrator energy efficiency plans; (2) it expects to work with the Program Administrators during 2010 on strategies for outreach, education, and marketing of the energy efficiency programs and to incorporate best practices into midterm plan modifications for 2011 and 2012; (3) Program Administrators should be allowed to earn performance incentives; (4) the statewide savings targets previously approved are appropriate; (5) Program Administrators should keep programs costs as low as possible; (6) Program Administrators should minimize bill impacts by minimizing upfront financing barriers; (7) Program Administrators should develop an open, clear, and supportive process for hiring and training workers and contractors in the industry; and (8) there will be a number of midterm adjustments to program design, savings and costs for 2011 and 2012 (Three-Year Plan Resolution at 1-3).

F. Pilot Projects Budget Resolution

On November 10, 2009, the Council approved a resolution with respect to the Program Administrators' proposed energy efficiency pilot program budgets (Pilot Project Budget Resolution at 1). The Council anticipates that one or more pilot programs undertaken during 2010 could continue in 2011 as standalone programs or as integrated elements of existing programs (Pilot Budget Resolution at 1). The Council, therefore, approved the expenditure of funds for the proposed pilots for 2010 only, with the expectation that further information about current and future pilots will be available in 2010 (Pilot Budget Resolution at 1).

IV. ENERGY EFFICIENCY SAVINGS GOALS

A. Introduction

The Green Communities Act requires that each Program Administrator's Three-Year Plan provide for the acquisition of all available cost-effective energy efficiency resources.<sup>12</sup> G.L. c. 25, §§ 19(a), 21(a). The Green Communities Act further requires that the Program Administrators work with the Council to prepare a Statewide Plan that is designed to achieve the Act's all cost-effective energy efficiency mandate. G.L. c. 25, § 21(b)(1). In its Savings and Incentive Resolution, the Council established statewide energy savings goals, expressed both as total annual gigawatt-hours ("GWh") saved and percent of total statewide sales saved.

B. Savings Goals in Statewide Plan

The Statewide Plan submitted by the Program Administrators includes statewide electric energy savings goals for each proposed program over the three-year period, 2010 through 2012

---

<sup>12</sup> In this Order the Department may use the term "energy efficiency" resources to refer to both energy efficiency and demand reduction resources.

(Exh. Common 1, at 19-21). The savings goals included in the Statewide Plan are a compilation of the savings goals included in each Program Administrator's Three-Year Plan, as discussed below. The Program Administrators indicate that these savings goals were developed in consideration of the following factors: (1) the language of the Green Communities Act which calls for a sustained statewide energy efficiency effort, which the Program Administrators interpret as requiring a longer-term, rather than a shorter-term effort;<sup>13</sup> (2) the statewide goals and savings goals set forth in the Council's Savings and Incentives Resolution; (3) the Department's directives in D.P.U. 08-50-A at 56-57, regarding rate and average bill impacts; (4) the assessment of all available cost-effective electric and gas savings presented by the Council's technical consultants at the Council's meeting on June 23, 2009, and approved by the Council in its Assessment Resolution;<sup>14</sup> (5) a number of studies and analyses on the technical, achievable, and economic potential of energy efficiency;<sup>15</sup> and (6) the Program Administrators' own experience implementing energy efficiency programs (Exh. Common 1, at 25-30).

---

<sup>13</sup> G.L. c. 25, § 22(b).

<sup>14</sup> This assessment is included in Appendix E to the Statewide Plan.

<sup>15</sup> A bibliography of these studies is included in Appendix C to the Statewide Plan.

The statewide savings goals are summarized by energy efficiency program in Table 1: Statewide Energy Savings Goals, by Program, in Section XIV, below. The savings goals for program year 2010 represent a 59 percent increase over the savings goals for program year 2008, and an 18 percent increase over the savings goals for program year 2009. In program year 2012, the savings goals represent a 182 percent and 109 percent increase over program years 2008 and 2009, respectively (Exh. Common 1, at 19-20).

C. Program Administrator Savings Goals

The Program Administrators include individual electric energy savings goals over the three-year period, 2010 through 2012. The Program Administrators' individual savings goals are summarized in Table 2: Program Administrator Energy Savings Goals, in Section XIV, below. In program year 2010, Program Administrator savings range from 4,022 megawatt-hours ("MWh") for Unitil to 289,774 MWh for National Grid. In program year 2012, Program Administrator savings range from 9,609 MWh for Unitil to 504,107 MWh for National Grid.<sup>16</sup> WMECo and Unitil have established savings goals that are less than the goals established in the Council's Savings and Incentive Resolution for 2010, 2011, and 2012.

D. Position of the Parties

1. Unitil

Unitil proposes an energy savings goal of 0.9 percent of its retail sales for 2010 whereas the statewide target is 1.4 percent (Exh. Unitil-1, Tab 8, at 3). Unitil argues that its

---

<sup>16</sup> Exhs. NG-6 Supp (December 23, 2009), Table IV.D.3.2.i; NSTAR-3 Supp (December 22, 2009), Table IV.D.3.2.i; Exh. WMECo-2 Supp (December 23, 2009), Table IV.D.3.2.i; Exh. CLC-1, exh. E Supp (December 14, 2009), Table IV.D.3.2.i; Exh. Unitil-1, Tab 6 Supp (December 23, 2009), Table IV.D.3.2.i.

proposed savings goal is appropriate because it represents an aggressive effort to meet the charge of acquiring all cost-effective energy efficiency (Exh. Unitil-1, Tab 8, at 3).

Specifically, Unitil argues that there are a number of circumstances unique to its service territory that affect its ability to reach the statewide goals (Exh. Unitil-1, Tab 8, at 3). First, Unitil states that its inability to reach the statewide target is based, in part, on savings in its 2009 energy efficiency plan. Unitil explains that the statewide targets are based on the aggregate of each Program Administrators 2009 savings level (Exh. Unitil-1, Tab 8, at 3). Unitil argues that, because its 2009 savings are lower than those of other Program Administrators, it will take longer for it to meet the statewide goals anticipated from implementation of the Statewide Plan (Exh. Unitil-1, Tab 8, at 3). Unitil states, however, that even though it starts at a lower savings level than the statewide goals in 2010, it increases program savings at a higher rate of annual increase than the statewide goals by 2012 (Exh. Unitil-1, Tab 8, at 4).

Second, Unitil states that it has a relatively higher percentage of low-income customers and lower percentage of commercial and industrial (“C&I”) customers as compared to the statewide average (Exh. Unitil-1, Tab 8, at 5). Unitil argues that statewide average cost to achieve savings for the low-income sector is the highest whereas the cost to achieve savings for the C&I sector is the lowest (Exh. Unitil-1, Tab 8, at 5). Therefore, Unitil concludes, its costs to achieve savings are higher (Exh. Unitil-1, Tab 8, at 5). In addition, Unitil argues that, due to the small size of its service territory, it has higher fixed costs associated with

- (1) administering the programs from an upper-level, planning and design perspective, and
- (2) implementing the programs from an on-the-ground perspective (Exh. Unitil-1, Tab 8, at 5).

Finally, Unitil states that it proposes a lower savings goal as compared to the statewide target due to current economic conditions in its service territory (Exh. Unitil-1, Tab 8, at 6). Unitil argues that customers experiencing economic hardships tend to have less interest in energy efficiency investments (Exh. Unitil-1, Tab 8, at 6). Unitil claims that it has a higher percentage of low-income customers than the rest of the state and a lower percentage of C&I customers, both of which are in economic distress, which makes it harder to achieve kWh savings (Exh. Unitil-1, Tab 8, at 6).

## 2. WMECo

WMECo proposes an energy savings goal of 1.2 percent of its retail sales for 2010, whereas the statewide target is 1.4 percent for 2010 (Tr. 4 (WMECo) at 676-677). WMECo contends that its proposed savings goal is the most it can reasonably achieve given the economic conditions in its service territory (Tr. 4 (WMECo) at 677-679). WMECo contends that declining energy sales, especially for its C&I customers, due to the troubled economy, prevent it from setting more aggressive goals (Tr. 4 (WMECo) at 677-679). In addition, WMECo argues that the median income in its service territory is lower than the statewide average and, therefore, it has a high percentage of low-income customers. WMECo contends that achieving savings for the low-income sector is generally more difficult than for the other sectors (Tr. 4 (WMECo) at 678-679).

## E. Analysis and Findings

The Green Communities Act requires that the Department ensure that each Program Administrator's Plan provides for the acquisition of all available cost-effective energy efficiency and demand reduction resources; that is, a Program Administrator must meet its

resource needs first through cost-effective energy efficiency and demand reduction resources in order to mitigate capacity and energy costs for all customers. G.L. c. 25, §§ 21(a), 21(b)(1). Pursuant to the Green Communities Act, the Program Administrators must work with the Council to prepare a Statewide Plan that is designed to achieve the Act's goal of acquiring all available cost-effective energy efficiency and demand reduction resources. G.L. c. 25, § 21(b)(1).

In its Savings and Incentive Resolution, the Council established statewide savings goals, expressed both as total annual GWh saved and percent of total statewide sales saved. Table A: Statewide Savings Goals, below, summarizes the Council's statewide goals, as well as the goals included in the Statewide Plan and each Program Administrator's individual Three-Year Plan.

Program Admin.	2010		2011		2012		2010-2012	
	Council	Program Admin.	Council	Program. Admin.	Council	Program Admin.	Council	Program Admin.
National Grid	287,977	289,774	415,967	417,459	506,932	504,107	1,210,876	1,211,340
NSTAR	258,655	258,386	373,613	375,146	455,315	455,167	1,087,583	1,088,699
WMECo	51,586	46,497	74,513	58,951	90,808	85,944	216,907	191,392
Unitil	6,387	4,022	9,225	6,375	11,243	9,609	26,855	20,006
Compact	25,395	25,747	36,681	39,139	44,703	48,597	106,779	113,483
<b>Statewide Total</b>	<b>630,000</b>	<b>624,427</b>	<b>910,000</b>	<b>897,069</b>	<b>1,109,000</b>	<b>1,103,423</b>	<b>2,649,000</b>	<b>2,624,919</b>

In evaluating the savings goals proposed by the Program Administrators, the Department gives appropriate deference to the decisions of the Council, in light of its statutory

<sup>17</sup> Source: Exh. Common 27, Supp. at 25-27 (December 21, 2009).



mandate to work with the Program Administrators to develop plans that achieve the goal of acquiring all available cost-effective energy efficiency and demand reduction resources.

G.L. c. 25, § 21(b)(1).

Over the three-year period, 2010 through 2012, National Grid, NSTAR Electric, and the Compact have established individual savings goals that meet or exceed the statewide savings goals set by the Council. Accordingly, we find that such goals are reasonable.

WMECo and Unitil have established savings goals for 2010, 2011, and 2012, that fall short of the goals established in the Council's Savings and Incentive Resolution. In its Savings and Incentive Resolution and its Three-Year Plan Resolution, the Council acknowledged that flexibility is important for individual Program Administrators that face particular and documented challenges in achieving energy efficiency savings, and stated that a Program Administrator may propose a target that departs from the statewide target, provided that it provides detailed justification for the deviation. Consistent with this, the Council approved the adjusted savings goals of WMECo and Unitil in its Three-Year Plan Resolution.

Although WMECo and Unitil have proposed savings goals that are less than the statewide goal, we find that each has adequately demonstrated that the economic conditions and median income in its service territory prevent it from establishing savings goals consistent with those of other Program Administrators (Unitil Brief at 79-80; WMECo Brief at 82-84). No party objected to WMECo and Unitil's proposed savings goals and the Council approved WMECo's and Unitil's proposed savings goals (Three-Year Plan Resolution at 2). Accordingly, we find that such goals are reasonable.

V. ENERGY EFFICIENCY PROGRAMS

A. Program Budgets

1. Statewide Budgets

The Statewide Plan includes statewide budgets for the energy efficiency activities the Program Administrators will undertake during the years 2010 through 2012. These activities can be characterized as (1) programs, (2) pilot programs, and (3) hard-to-measure initiatives.<sup>18</sup>

Table 3a: Statewide Program Budgets; Table 3b: Statewide Pilot Program Budgets; and Table 3c: Statewide Hard-to-Measure Initiative Budgets, in Section XIV, summarizes the activities and associated budgets.

Most activities shown in Table 3a: Statewide Program Budgets, Table 3b: Statewide Pilot Program Budgets, and Table 3c: Statewide Hard-to-Measure Initiative Budgets, in Section XIV, will be undertaken on a statewide basis by all Program Administrators. However, some activities are only offered by Program Administrators in their individual service territories and not on a statewide basis.<sup>19</sup>

---

<sup>18</sup> Hard-to-measure initiatives are programs with energy savings that are not immediate or difficult to quantify, including, but not limited to: (1) programs for research, development and commercialization of efficiency products; (2) programs to support new appliance and product efficiency standards; (3) programs to integrate efficiency products with building energy codes or high performance sustainable buildings that exceed code; and (4) programs for public education regarding energy efficiency. Guidelines § 2(11).

<sup>19</sup> For the programs listed in Table 3a, the OPower program is offered only by National Grid (Exh. NG-2, at 2a). For the programs listed in Table 3b, the Residential Power Monitor Program is offered only by the Compact, while the Residential Heat Pump Water Heater pilot program is offered by both the Compact and National Grid (Exhs. CLC 1, exh. D at 6-8; Exh. NG-2 at 2b). For the programs listed in Table 3c, the Workforce Development Initiative is offered only by National Grid, while the Residential Education program is offered by both National Grid and NSTAR Electric,

2. Program Administrator Budgets

a. Budget Summary

Each Program Administrator's budget is comprised of program implementation costs and a before-tax performance incentive.<sup>20</sup> Table 4: Program Administrator Budgets, in Section XIV, identifies each Program Administrator's total budget for the period 2010 through 2012.<sup>21</sup>

b. Program Implementation Costs

Program implementation costs include costs associated with: (1) program planning and administration ("PP&A"); (2) marketing and advertising; (3) participant incentives; (4) sales, technical assistance and training; and (5) evaluation and market research (Exh. Common 1, at 69-70). Guidelines § 3.3.3. PP&A costs are identified by the Program Administrators as cost associated with developing program plans, daily program administration, and regulatory activities (Exh. Common 1, at 314). Pursuant to the Green Communities Act, the Department

---

and the Residential Automation Program is offered only by the Compact (Exhs. NSTAR-6 (B); NG-2 at 2c, 2d).

<sup>20</sup> Exhs. NG-6 (December 23, 2009); NSTAR-3 (December 22, 2009); WMECo-2 (December 23, 2009); CLC-1, exh. E (December 14, 2009); Unutil-1, Tab 6 (January 21, 2010).

<sup>21</sup> The proposed budgets do not include any amounts for lost base revenues ("LBR"). The Department has stated that it will adjudicate issues related to LBR recovery for electric Program Administrators in separate proceedings following the review of the three-year energy efficiency plans. Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid, D.P.U. 08-129-B at 3-4 (October 26, 2009); NSTAR Electric Company, D.P.U. 08-117-B at 3-4 (October 26, 2009); Fitchburg Gas and Electric Light Company d/b/a Unutil, D.P.U. 08-126-B at 3-4 (October 26, 2009); Western Massachusetts Electric Company, D.P.U. 08-118-B at 3-4 (October 26, 2009).

must ensure that Program Administrators have minimized administrative costs (i.e., PP&A costs) to the fullest extent practicable. G.L. c. 25, §§ 19(a) and (b).

Table 5: Program Administrator Program Planning & Administration Costs, in Section XIV, summarizes the percentage of each Program Administrator's total program costs that is comprised of PP&A costs for the period 2010 through 2012.

### 3. Competitive Procurement

Pursuant to the Green Communities Act, the Department must ensure that Program Administrators use competitive procurement processes to the fullest extent practicable.

G.L. c. 25, §§ 19(a) and (b). Table 6: Program Administrator Competitive Procurement, in Section XIV, summarizes for each Program Administrator the percentage of its costs that it projects to incur through competitive procurement process for the period 2010 through 2012.

### 4. Position of the Parties

#### a. Three-Year Plan Budgets

The Program Administrators, DOER, ENE, and LEAN argue that the Three-Year Plan budgets meet all requirements of the Guidelines and the Green Communities Act and, therefore, should be approved by the Department.<sup>22</sup> The Program Administrators contend that the Three-Year Plan program budgets appropriately incorporate a graduated ramp-up of spending in order to ensure that (1) a delivery infrastructure is in place so that high quality

---

<sup>22</sup> National Grid Brief at 27-28; NSTAR Electric Brief at 28-29; WMECo Brief at 27; Compact Brief at 30; Unitil Brief at 27; ENE Brief at 8-9; see LEAN Brief at 5-6, DOER Brief at 4-5, 16, 30.

services can be provided to customers on a sustainable basis, and (2) to provide for smoother bill impacts.<sup>23</sup>

The Attorney General also recommends that the Department approve the Program Administrators' Three-Year Plan budgets (Attorney General Brief at 33). The Attorney General states, however, that the Department should require rigorous tracking and monitoring of budgets (Attorney General Brief at 33).

b. Program Planning and Administration Costs

The Program Administrators argue that they have minimized PP&A costs while recognizing the need to maximize program quality and maintain adequate oversight.<sup>24</sup> Accordingly, the Program Administrators contend that they have minimized administrative costs to the fullest extent practicable, consistent with the requirements of G.L. c. 25, § 19(a).<sup>25</sup> In addition, the Program Administrators state that they intend to work with the Attorney General, DOER, and other interested parties in developing consistent PP&A cost categories (Exh. Common 1, at 315).

---

<sup>23</sup> National Grid Brief at 24; NSTAR Electric Brief at 24; WMECo Brief at 23; Compact Brief at 26; Unitil Brief at 23.

<sup>24</sup> National Grid Brief at 25-26 citing Exh. Common 1, at 315; NSTAR Electric Brief at 26-27 citing Exh. Common 1, at 315; WMECo Brief at 25-26 citing Exh. Common 1, at 315; Compact Brief at 28-29 citing Exh. Common 1, at 315; Unitil Brief at 25-26; citing Exh. Common 1, at 315.

<sup>25</sup> National Grid Brief at 25-26; NSTAR Electric Brief at 26-27; WMECo Brief at 25; Compact Brief at 28; Unitil Brief at 25.

c. Competitive Procurement

The Program Administrators argue that they will use competitive procurement processes to the fullest extent possible and in a manner that minimizes costs to the ratepayers while maximizing the associated return on investment in the competitive procurement contracts.<sup>26</sup> The Program Administrators state that their procurement practices are appropriate and, therefore, consistent with the Act (National Grid Brief at 26-27, citing Exh. Common 1, at 316; NSTAR Electric Brief at 27-28, citing Exh. Common 1, at 316; WMECo Brief at 26-27, citing Exh. Common 1, at 316; Compact Brief at 29, citing Exh. Common 1, at 316; Unitil Brief at 26-27, citing Exh. Common 1, at 316).

d. Low-Income Program Budgets

Each Program Administrator argues that it has complied with the requirement in G.L. c. 25, § 19(c) that at least ten percent of the amount expended on electric energy efficiency programs be spent on low-income programs (National Grid Brief at 41; NSTAR Electric Brief at 42-43; WMECo Brief at 42; Compact Brief at 44-45; Unitil Brief at 40).

e. Pilot Program Budgets

The Program Administrators argue that the proposed statewide pilot program budget of 1.29 percent of the Statewide Plan budget in 2010 is consistent with the Green Communities Act.<sup>27</sup> The Program Administrators explain that, pursuant to the Green Communities Act, if

---

<sup>26</sup> National Grid Brief at 26-27; NSTAR Electric Brief at 27-28; WMECo Brief at 26-27; Compact Brief at 29; Unitil Brief at 26-27; citing Exh. Common 1, at 316.

<sup>27</sup> National Grid Brief at 51-52 & n.18; WMECo Brief at 52-53 & n.19; NSTAR Electric Brief at 53 & n.21; Compact Brief at 55-56 & n.22; G.L. c. 25, § 21(b)(2); see Unitil Brief at 50.

more than one percent of the Statewide Plan budget is expended on “programs for research, development and commercialization of products or processes which are more energy-efficient than those generally available” and “programs for development of markets for such products and processes, including recommendations for new appliance and product efficiency standards” the Council must explicitly authorize the pilot budget (National Grid Brief at 51-52 & n.18; WMECo Brief at 52-53 & n.19; NSTAR Electric Brief at 53 n.21 citing G.L. c. 25, § 21(b)(2); see Unitil Brief at 50). The Program Administrators state that the Council approved the statewide and individual Program Administrator pilot program budgets in its, Pilot Projects Budget Resolution (National Grid Brief at 51-52 & n.18; WMECo Brief at 52-53 & n.19; NSTAR Electric Brief at 53 & n.21; Compact Brief at 55-56 & n.22; see Unitil Brief at 50).

B. Program Cost-Effectiveness

1. Introduction

The Department is required to determine whether the energy efficiency programs contained within the Three-Year Plans are cost-effective. G.L. c. 25, § 21(b)(3). Program cost-effectiveness ensures that programs are designed to obtain energy savings and system benefits with value greater than program costs. For each energy efficiency program, each Program Administrator submitted a projected benefit-cost ratio for 2010 through 2012 using the TRC test (Exh. Common 1, at 23-25). Total resource costs are comprised of the following: (1) program implementation costs;<sup>28</sup> (2) before-tax performance incentives;<sup>29</sup> and

---

<sup>28</sup> Program implementation costs are discussed in Section V.A.2., above.

<sup>29</sup> The Compact does not collect a performance incentive (Exh. Common 1, at 23).

(3) participant costs (Exh. Common 1, at 23). The Program Administrators allocated costs associated with pilot programs and hard-to-measure initiatives to the appropriate residential, low-income, or C&I sector for the purpose of evaluating the cost-effectiveness of those programs (Exh. Common 1, at 10).

The Program Administrators include the following benefits in the TRC test:

- avoided electric energy benefits, calculated as the product of the program's energy savings (as measured in kWh) and an avoided energy cost factor;<sup>30</sup>
- avoided generation capacity benefits, calculated as the product of the program's reduction in peak demand (as measured in kilowatts ("kW")) and an avoided capacity cost factor;<sup>31</sup>
- avoided transmission and distribution capacity benefits, calculated as the product of the program's reduction in peak demand and avoided transmission and distribution cost factors, respectively;
- non-electric resource benefits, calculated as the product of the program's savings in natural gas, oil, propane, water and sewerage, and other fuels, and avoided cost factors for each of these resources;<sup>32</sup>
- non-electric non-resource benefits; and
- benefits associated with the demand-reduction-induced price effect of capacity and energy ("DRIPE").<sup>33</sup>

---

<sup>30</sup> Energy savings and the avoided energy cost factor were each divided into four time periods - winter peak, winter off-peak, summer peak, and summer off-peak (Exh. Common 1, at 106).

<sup>31</sup> Capacity savings and the avoided capacity factor were each divided into summer and winter periods (Exh. Common 1, at 106-107).

<sup>32</sup> The calculation of some non-electric benefits vary for each Program Administrator (Tr. 3, at 420-422). To address such variances, the Program Administrators state that they intend to conduct evaluation studies on non-electric benefits (Tr. 3, at 420-422)

<sup>33</sup> DRIPE is the reduction of wholesale energy and capacity market prices that results from reductions in demand due to energy efficiency efforts (Exh. Common 1, at 108).



(Exh. Common 1, 106-108).

## 2. Avoided Cost Factors

Avoided cost factors, excluding transmission and distribution, were developed in the Avoided Energy Supply Cost in New England: 2009 Report August 21, 2009 (revised October 23, 2009) (“Avoided Cost Study”) (Exh. Common 1, at 102). The Avoided Cost Study provides projections of marginal energy supply costs that will be avoided due to savings in electricity, natural gas, and other fuels that result from the implementation of energy efficiency programs offered to customers in Massachusetts (and throughout New England) (Exh. Common 20, at 1-1).

The avoided transmission and distribution cost values used to calculate program cost-effectiveness are Program Administrator-specific (Exh. Common 1, at 105). All Program Administrators, with the exception of Unitil, relied on a common model, the ICF tool, to calculate these values (Exh. Common 20, at 6-66; Tr. 3, at 425-426).<sup>34</sup>

## 3. Benefit Cost Ratios

Table 7a: Program Administrator Cost-Effectiveness; and Table 7b: Program Administrator Cost-Effectiveness, in Section XIV, summarizes each Program Administrator’s projected annual benefit-cost ratios. Each Program Administrator relied on the TRC test to calculate its benefit-cost ratios (Exh. Common 1, at 23-24). Table 8: Statewide Program

---

Consistent with the Department’s directives in D.P.U. 08-50-A at 39, only DRIPE benefits that accrue to customers within Massachusetts are used in each Program Administrator’s cost-benefit analyses (Exh. Common 1, at 103-104, 108).

<sup>34</sup> Unitil states that it generally reviews avoided transmission and distribution calculations after marginal cost studies are completed within the context of a base rate case (Exh. DPU-Unitil 1-32).

Cost-Effectiveness in Section XIV, summarizes on a statewide basis each program's cost-effectiveness for the three-year period, 2010 through 2012.

4. Position of the Parties

The Program Administrators, DOER, ENE, and LEAN argue that the proposed energy efficiency programs are cost-effective, and meet the requirements of the TRC test and Green Communities Act (National Grid Brief at 19-22; WMECo Brief at 19-21; Compact Brief at 21-24, NSTAR Electric Brief at 20-22; Unitil Brief at 19-21; DOER Brief at 5-7; ENE Brief at 7; LEAN Brief at 4).

The Attorney General agrees that the programs proposed in the Statewide Plan, in total, are cost-effective, but makes several recommendations to ensure the accuracy of program benefits used in the TRC test (Attorney General Brief at 11). Specifically, the Attorney General recommends that the Program Administrators provide support for non-resource benefits with actual claimed results, recent studies, actual field validations, and independent third party audits (Attorney General Brief at 30). In addition, the Attorney General recommends that the Program Administrators be required to file progress reports on these activities whenever energy efficiency reports are filed (Attorney General Brief at 30).

In response to the Attorney General's recommendations, the Program Administrators argue that they have already committed to review of non-resource benefits in the course of EM&V activities (National Grid Reply Brief at 17, citing Exh. Common 1, at 290-291; NSTAR Electric Reply Brief at 13, citing Exh. Common 1, at 290-291; WMECo Reply Brief at 14, citing Exh. Common 1, at 290-291; Compact Reply Brief, citing Exh. Common 1, at 290-291; Unitil Reply Brief, citing Exh. Common 1, at 290-291). The Program

Administrators argue that the Council is a part of the EM&V process and, therefore, there is an adequate forum for peer review of future non-resource benefits research (National Grid Reply Brief at 17; NSTAR Electric Reply Brief at 13; WMECO Reply Brief at 14; Compact Reply Brief at 13; Unitil Reply Brief at 12-13).

The Attorney General questions the assumptions used to determine the dissipation effects of DRIPE in the 2009 Avoided Cost Study (Attorney General Brief at 27-28). The Attorney General states that DRIPE values are subject to uncertainty and cannot be verified yet they represent a significant portion of overall benefits associated with the Three-Year Plans (Attorney General Brief at 27-28). As such, the Attorney General recommends that the Department require the Program Administrators to conduct an assessment of the accuracy of the forecasting models relied upon and to verify the DRIPE dissipation rate (Attorney General Brief at 28-29).

The Program Administrators argue there is no accurate way to retrospectively calculate the effects of DRIPE (National Grid Reply Brief at 16; NSTAR Electric Reply Brief at 12; WMECo Reply Brief at 13; Compact Reply Brief at 12; Unitil Reply Brief at 11-12). The Program Administrators argue that such an analysis would be inaccurate because it would require the use of several additional assumptions to isolate the impacts of external factors on market prices (National Grid Reply Brief at 16; NSTAR Electric Reply Brief at 12; WMECO Reply Brief at 13; Compact Reply Brief at 12; Unitil Reply Brief at 11-12). The Program Administrators contend that biennial updates to energy and capacity DRIPE benefits, as required by D.P.U. 08-50-B at 50, provide a sufficient and efficient means for monitoring the value of DRIPE (National Grid Reply Brief at 17, citing Guidelines § 3.4.4.1; NSTAR Electric

Reply Brief at 12, citing Guidelines § 3.4.4.1; citing Guidelines § 3.4.4.1; Unitil Reply Brief at 12, citing Guidelines § 3.4.4.1.; WMECo Reply Brief at 13-14, citing Guidelines § 3.4.4.1; Compact Reply Brief at 13, citing Guidelines § 3.4.4.1).

C. Analysis and Findings

1. Program Budgets

a. Introduction

A Program Administrator's budget is comprised of energy efficiency program implementation costs, performance incentives and, where applicable, recovery of lost base revenues as approved by the Department. Guidelines at § 3.3.1. In authorizing energy efficiency program budgets the Department is charged with ensuring that (1) Program Administrators have minimized administrative costs to the fullest extent practicable; (2) sufficient funding is allocated to low-income programs; and (3) competitive procurement processes are used to the fullest extent practicable. G.L. c. 25, §§ 19(a) – (c). Performance incentives are discuss below in Section VIII.

b. Program Planning and Administration Costs

The Green Communities Act requires the Department to ensure that Program Administrators minimize administrative costs to the fullest extent practicable. G.L. c. 25, § 19(a). Program Administrators are required to include in their Three-Year Plans a detailed description and supporting documentation of the steps taken to minimize administrative costs. Guidelines § 3.3.6. The Program Administrators argue that, in setting program costs, they sought to balance the need to minimize PP&A costs with the need to maximize program quality

and oversight (National Grid Brief at 26; NSTAR Electric Brief at 27; WMECo Brief at 25-26; Compact Brief at 28-29; Unitil Brief at 25-26).

As shown in Table 5: Program Administrator Program Planning & Administration Costs, in Section XIV, each Program Administrator's PP&A costs decrease as a percentage of its total budget over the three year period, 2010 through 2012. With increasing EM&V activities as discussed in Section IX, below, we fully expect that program quality and oversight will increase although PP&A costs as a percentage of total budgets will decline. We find that each Program Administrator's Three-Year Plan is designed to minimize administrative costs to the fullest extent practicable, without sacrificing program performance (Exhs. NSTAR Electric-3, Table V.D.1; NG-6, Table V.D.1; WMECo-2, Table V.D.1; Unitil-1, Table V.D.1.).

During the Department's review of the Program Administrators' future energy efficiency Annual Reports we will determine whether actual administrative costs were minimized to the fullest extent practicable. As discussed above, the Program Administrators state that they intend to develop consistent PP&A cost categories (Exh. Common 1, at 315). Consistent cost categories will enable the Department to more effectively compare administrative costs on a statewide level. Accordingly, the Department directs the Program Administrators to develop consistent statewide PP&A cost categories. The Program Administrators must report on their progress towards meeting this requirement and, if necessary, identify any unresolved issues in their next Annual Reports.

c. Low-Income Program Budgets

The Green Communities Act requires at least ten percent of the amount expended on electric energy efficiency programs to be spent on comprehensive low-income residential demand side management and education programs. G.L. c. 25, § 19(c). As shown in Table 4: Program Administrator Budgets in Section XIV, each Program Administrator proposes a low-income program budget that exceeds the statutory minimum of ten percent. Accordingly, we find that each Program Administrator has met the requirements of G.L. c. 25, § 19(c).

d. Competitive Procurement

The Department must ensure that energy efficiency programs use competitive procurement processes to the fullest extent practicable. As describe in Table 6: Program Administrator Competitive Procurement, in Section XIV, based on the percentage of costs that the Program Administrators projects they will incur, the Program Administrators contend that they are using competitive procurement processes to the fullest extent practicable, in a manner that minimizes costs to the ratepayers while maximizing the associated return on investment in the competitive procurement contracts (National Grid Brief at 26-27; NSTAR Electric Brief at 27-28; WMECo Brief at 26-27; Compact Brief at 29; Unitil Brief at 26-27; citing Exh. Common 1, at 316). Each Program Administrator has competitively procured a high percentage of program activities (Exhs. NSTAR Electric-3, Table V.D.3; NG-6, Table V.D.3; WMECo-2, TableV.D.3; Unitil-1, Table V.D.3.). Accordingly, the Department finds that each Three-Year Plan uses competitive procurement processes to the fullest extent practicable, consistent with the requirements of G.L. c. 25, § 19(a).

e. Pilot Programs

As described in Table 3a: Statewide Program Budgets and Table 3b: Statewide Pilot Program Budgets, in Section XIV, the Program Administrators' total pilot budget equals 1.29 percent of the total Statewide Plan budget. Where the Program Administrators' combined pilot program budgets exceed one percent of the Statewide Plan budget for programs relating to research, development, and commercialization of products or processes which are more energy-efficient than those generally available, and programs for development of markets for such products and processes, including recommendations for new appliance and product efficiency standards, the Program Administrators must obtain Council approval of pilot budgets. G.L. c. 25, § 21(b)(2).

On November 10, 2009, the Council approved budgets for the pilot programs proposed by each electric Program Administrators for 2010, noting that these pilot projects will provide information and insight that will inform future program opportunities (Pilot Projects Budget Resolution at 1). The Council will address the proposed pilot program budgets for 2011 and 2012 at a later date as it anticipates that further information about current and future pilots will be provided later in 2010 that will inform the pilot budgets for 2011 and 2012 (Pilot Projects Budget Resolution at 1).

The Green Communities Act states that the Three-Year Plans shall include programs for research and market development and commercialization. G.L. c. 25, §21(b)(2). As the Program Administrators reach the goal of acquiring all cost-effective energy efficiency resources, pilot programs will play an important role in developing innovative cost-effective programs. At a combined 1.29 percent of the Statewide Plan budget, the Department finds that

the Program Administrators' 2010 pilot program budgets are of a sufficient size to carry out energy efficiency research and development activities. Accordingly, the Department approves each Program Administrator's proposed budget for pilot activities related to research and development for 2010.

The Department agrees with the Council that pilot performance in 2010 will help determine the appropriate budget levels for 2011 and 2012. Accordingly, the Department directs the Program Administrators to provide further information regarding proposed 2011 and 2012 pilot budgets at the time the Program Administrators file their 2010 Annual Reports.

2. Cost-Effectiveness

a. Introduction

The Department is required to review the energy efficiency programs proposed in the Three-Year Plans for cost-effectiveness. G.L. c. 25, § 21(b)(3). Such review ensures that programs are designed to capture energy savings and system benefits with values greater than program costs. G.L. c. 25, § 21(b)(3).

In D.P.U. 08-50-A, the Department reaffirmed that the TRC test is the appropriate test for evaluating the cost-effectiveness of energy efficiency programs. D.P.U. 08-50-A at 14. Specifically, because the TRC test includes the avoided cost of supply as one of the most significant program benefits, this test satisfies the Act's requirement that, among other things, energy efficiency programs be less expensive than supply. G.L. c. 25, § 21(a); D.P.U. 08-50-A at 14.

Under the TRC test, screening for cost-effectiveness should be performed at the program level, with the exception of hard-to-measure and pilot programs. D.P.U. 08-50-A



at 20; Guidelines § 3.4. An energy efficiency program will be found cost-effective if its program benefits are equal to or greater than its program costs, as expressed in present value terms. Guidelines § 3.4.<sup>35</sup>

Hard-to-measure and pilot programs are not screened individually for cost-effectiveness. Guidelines §§ 3.4.3.1, 3.4.4.2. Instead, the costs and benefits of hard-to-measure and pilot programs are included in the total program costs and benefits of the relevant customer sector. Guidelines § 3.4.3.2. If a hard-to-measure or pilot program causes the sector's benefit-cost ratio to fall below one, the hard-to-measure or pilot program will be deemed not cost-effective. D.P.U. 08-50-A at 30; Guidelines § 3.4.3.2.

b. Method to Determine Cost-Effectiveness

Each Program Administrator included in its cost-effectiveness analyses all program benefits and costs identified in the Guidelines §§ 3.4.4.1, 3.4.5. In addition, each Program Administrator included its performance incentive, before tax, as a program cost consistent with the Department's previous directives on this matter.<sup>36, 37</sup> Accordingly, the Department finds that the manner in which each Program Administrator performed the cost-effectiveness

---

<sup>35</sup> The Department directed Program Administrators to use a discount rate equal to the twelve-month average of the historical yields from the ten-year Treasury note, using the previous calendar year to determine the twelve-month average Treasury note yield. D.P.U. 08-50-A at 20-23.

<sup>36</sup> Exhs. NG-6, Supp. Table IV.D.2.i (December 23, 2009); NSTAR-3, Supp. Table IV.D.2.i (December 22, 2009); WMECo-2, Supp. Table IV.D.2.i (December 23, 2009); Unitil-1, Tab 6, Supp. Table IV.D.2.i (December 23, 2009); CLC-1, exh. E Supp. Table IV.D.2.i (December 14, 2009).

<sup>37</sup> See National Grid, D.P.U. 08-129, at 37 (2009); NSTAR Electric Company, D.P.U. 08-117, at 36 (2009); Western Massachusetts Electric Company, D.P.U. 08-118, at 34 (2009); Fitchburg Gas and Electric Light Company, d/b/a Unitil, D.P.U. 08-126, at 33 (2009).

analyses of the proposed programs included in its Three-Year Plans is consistent with the Guidelines. Guidelines § 3.4.

c. Non-Electric Benefits

Non-electric benefits account for those benefits that are specific to program participants. They consist of both non-electric resource<sup>38</sup> and non-electric non-resource benefits.<sup>39</sup> Guidelines § 3.4.4.1(b). As shown in Table 8, Statewide Program Cost-Effectiveness, on a statewide basis, a significant portion of the benefits that result from the energy efficiency programs are associated with non-electric benefits.<sup>40</sup> For residential programs, non-electric resource benefits represent approximately 53 percent of total benefits.<sup>41</sup>

---

<sup>38</sup> Non-electric resource benefits take into account the avoided costs of natural gas, oil, propane, wood, kerosene, water, and other resources for which consumption is reduced as a result of the implementation of an energy efficiency program. Guidelines § 3.4.4.1(b)(i).

<sup>39</sup> Non-electric non-resource benefits include, among other things: (1) reduced costs associated with efficient equipment and practices; (2) reduced environmental and safety costs; and (3) all benefits associated with providing energy efficiency service to low-income customers. Guidelines § 3.4.4.1(b)(ii).

<sup>40</sup> Exhs. NG-6, Supp. Table IV.D.3.i (December 23, 2009); NSTAR-3, Supp. Table IV.D.3.i (December 22, 2009); WMECo-2 Supp. Table IV.D.3.i (December 23, 2009); Unitil-1, Tab 6 Supp. Table IV.D.3.i (December 23, 2009); CLC-1, exh. E Supp. Table IV.D.3.i (December 14, 2009).

<sup>41</sup> In particular, for the MassSAVE Program, non-electric resource benefits represent approximately 76 percent of total benefits. For residential programs in total, and the MassSAVE Program in particular, the large majority of non-electric resource benefits are derived from avoided oil costs (Exhs. NG-6, Supp. Table IV.D.3.iii (December 23, 2009); NSTAR-3, Supp. Table IV.D.3.iii (December 22, 2009); WMECo-2, Supp. Table IV.D.3.iii (December 23, 2009); Unitil-1, Tab 6, Supp. Table IV.D.3.iii (December 23, 2009); CLC-1, exh. E Supp. Table IV.D.3.iii (December 14, 2009)).

For low-income programs, non-electric benefits represent approximately 63 percent of total benefits.<sup>42</sup>

The Green Communities Act requires Program Administrators to acquire all available cost-effective energy efficiency resources throughout the course of these and future three-year plans. In the future, as the Program Administrators pursue the goal of acquiring all available cost-effective energy efficiency resources, benefit-cost ratios for some programs will likely be considerably lower than those presented here. This potential trend heightens the importance of ensuring the reliability of the benefits included in the TRC test. In particular, Program Administrators should seek to continue to improve the evaluation of non-electric benefits, especially those attributed to the residential and low-income sectors, because: (1) non-electric benefits in the Three-Year Plans represent a growing proportion of overall benefits as compared to previous years; and (2) the manner in which the Program Administrators ascribe values to non-electric non-resource benefits could be significantly improved.<sup>43</sup>

In its evaluation of cost-effectiveness for electric energy efficiency programs, the Department has accepted the inclusion of non-resource benefits for many years. In developing their Three-Year Plans, the Program Administrators have confirmed that all efforts were made

---

<sup>42</sup> For low-income programs, approximately 65 percent of non-electric benefits are derived from non-resource benefits, and 35 percent are derived from resource benefits (Exhs. NG-6, Supp. Table IV.D.3.iii (December 23, 2009); NSTAR-3, Supp. Table IV.D.3.iii (December 22, 2009); WMECo-2, Supp. Table IV.D.3.iii (December 23, 2009); Unitil-1, Tab 6, Supp. Table IV.D.3.iii (December 23, 2009); CLC-1, exh. E Supp. Table IV.D.3.iii (December 14, 2009)).

<sup>43</sup> Tr. 3, at 420-423, 459-462; Exhs. NG-6, Supp. Table IV.D.3.iii (December 23, 2009); NSTAR-3, Supp. Table IV.D.3.iii (December 22, 2009); WMECo-2, Supp. Table IV.D.3.iii (December 23, 2009); Unitil-1, Tab 6, Supp. Table IV.D.3.iii (January 21, 2010); CLC-1, exh. E Supp. Table IV.D.3.iii (December 14, 2009)

to ensure that non-resource benefits were calculated using common assumptions (Tr. 3, at 420-421). Accordingly, the Department accepts the values for non-electric benefits included in each Program Administrator's Three-Year Plan for the purpose of determining program cost-effectiveness for the years 2010 through 2012. Consistent with the discussion above, however, we direct the Program Administrators to evaluate the assumptions underlying the non-electric benefits estimates and, as necessary, adopt assumptions that improve the reliability of these estimates. The electric Program Administrators should work in coordination with the gas Program Administrators to develop non-electric benefit estimates that are consistent, appropriate, and well-documented. This issue is addressed further in Section IX, below.

d. Avoided Cost Factors

i. DRIPE

Energy and capacity DRIPE factors used in the cost-effectiveness analyses were developed in the 2009 Avoided Cost Study. The Attorney General recommends that the Program Administrators conduct additional reporting and verification of the DRIPE factors, including the assumptions used to calculate energy DRIPE dissipation levels. (Attorney General Brief at 28-29). Such a study would require a counterfactual analysis in which actual energy prices are normalized to remove the effects of all external factors other than energy efficiency (Tr. 3, at 500-502).

As shown in Table 8: Statewide Program Cost-Effectiveness, in Section XIV, benefits associated with DRIPE comprise, on a statewide basis, approximately 15 percent of total

benefits.<sup>44</sup> As discussed above, the requirement that Program Administrators acquire all available cost-effective energy efficiency resources heightens the importance of ensuring the reliability of benefits included in the cost-effectiveness analyses. As such, it is important to ensure the reasonableness of the assumptions that underlie the DRIPE factors.

The next update to the Avoided Cost Study will be completed during 2011, in time for the results to be used in the cost-effectiveness analyses included in the Program Administrators' next three-year plans. The appropriate venue to explore methods to improve the validity of the DRIPE factors is the working group, comprised of Program Administrators and other interested parties, that oversees the construction of the biennial updates to the Avoided Cost Study.

ii. Distribution and Transmission

Avoided costs for distribution and transmission are among the benefits associated with program cost-effectiveness. Program Administrators, with the exception of Unitil, determine avoided distribution and transmission cost factors on a company-specific basis, using the ICF tool, as discussed above in Section V.B.2. In the 2009 Avoided Cost Study, it was reported that the ICF tool had limitations (Exh. Common 20, at 6-66, 6-67).

As shown in Table 8: Statewide Program Cost-Effectiveness, benefits associated with avoided transmission and distribution costs comprise, on a statewide basis, approximately

---

<sup>44</sup> Energy DRIPE benefits represent approximately 87 percent of total DRIPE benefits; capacity DRIPE benefits represent the remaining 13 percent (Exhs. NG-6, Supp. Table IV.D.3.iii (December 23, 2009); NSTAR-3, Supp. Table IV.D.3.iii (December 22, 2009); WMECo-2, Supp. Table IV.D.3.iii (December 23, 2009); Unitil-1, Tab 6, Supp. Table IV.D.3.iii (December 23, 2009); CLC-1, exh. E Supp. Table IV.D.3.iii (December 14, 2009)).

nine percent of total benefits. The requirement that Program Administrators acquire all available cost-effective energy efficiency resources heightens the importance of ensuring the reliability of benefits included in the cost-effectiveness analyses. The errors contained in the ICF tool and assumptions used by the Program Administrators in calculating avoided distribution and transmission cost factors raises concern over the reliability of these factors.

The Department accepts the avoided transmission and distribution cost factors included in each Program Administrator's Three-Year Plan for the purpose of determining program cost-effectiveness for the years 2010 through 2012. Consistent with the discussion above, however, we direct the Program Administrators to work collaboratively with interested parties to address the issues raised in the 2009 Avoided Cost Study, and to develop avoided cost factors that improve the reliability of transmission and distribution benefits in time for inclusion in their cost-effectiveness analyses for the next three-year plans. To the extent possible, Program Administrators should use consistent methods and assumptions when determining their individual transmission and distribution avoided cost factors. Any differences in the models and underlying assumptions used by the Program Administrators should be thoroughly documented and explained. The Department directs the Program Administrators to report on their progress on this matter in their next Annual Reports.

e. Program Cost-Effectiveness

Each Program Administrator has demonstrated that, based on the projected benefits and costs included in its Three-Year Plan,<sup>45</sup> all proposed energy efficiency programs have a

---

<sup>45</sup> As discussed in Section IX, below, the cost-effectiveness of energy efficiency programs is reevaluated after the program year, based on each Program Administrator's

benefit-cost ratio greater than one.<sup>46</sup> Therefore, consistent with G.L. c. 25, § 21(b)(3), the Department finds that each proposed program included in the Three-Year Plans is cost-effective.

Each Program Administrator has included hard-to-measure and pilot program costs and benefits in the cost-effectiveness analyses of the relevant customer sectors as required by the Guidelines § 3.4.3.2.<sup>47</sup> With these inclusions, the benefit/cost ratios remain greater than one for each customer sector. The Department, therefore, approves the implementation of each proposed hard-to-measure and pilot program.

## VI. FUNDING

### A. Introduction

Each Program Administrator proposes to fund the budget for its Three-Year Plan through five sources: (1) SBC of \$0.0025 per kWh collected from ratepayers; (2) proceeds from the Program Administrators' participation in the FCM administered by ISO-NE; (3) proceeds from the Regional Greenhouse Gas Initiative ("RGGI"), a multi-state carbon cap and trade system; (4) outside funding; and (5) an EES, collected through the EERF tariff, to be

---

performance during the year, and the results of evaluation studies conducted for that year.

<sup>46</sup> Exhs. NG-6, Supp. Table IV.D.1 (December 22, 2009); NSTAR-3, Supp. Table IV.D.1 (December 22, 2009); WMECo-2, Supp. Table IV.D.1 (December 23, 2009); Unitil-1, Tab 6, Supp. Table IV.D.1 (January 21, 2010); CLC-1, exh. E Supp. IV.D.1 (December 14, 2009).

<sup>47</sup> Exhs. NG-6, Supp. Table IV.B.1 (December 22, 2009); NSTAR-3, Supp. Table IV.B.1 (December 22, 2009); WMECo-2, Supp. Table IV.B.1 (December 23, 2009); Unitil-1, Tab 6, Supp. Table IV.B.1 (January 21, 2010); CLC-1, exh. E Supp. Table IV.B.1 (December 14, 2009).

recovered from ratepayers through distribution rates (Exh. Common 1, at 53-54).<sup>48</sup> The Program Administrators propose to allocate the SBC, FCM, and RGGI revenue to each customer class in proportion to each classes' kWh consumption, consistent with G.L. c. 25, § 19(a) (Exh. Common 1, at 55-61). Table 9: Program Administrator Funding Sources, in Section XIV, lists the proposed program funding levels for each Program Administrator.

B. System Benefits Charge

The Program Administrators project to recover \$364,972,804 through the SBC from 2010 through 2012.<sup>49</sup> The Program Administrators calculated projected SBC revenue as the product of (1) the \$0.0025 per kWh SBC rate specified by statute and (2) its projected 2010 through 2012 sales (145,988,704,709 kWh) (Exh. Common 1, at 53-56, citing G.L. c 25, § 19(a); Exhs. NG-6 Supp. (January 14, 2010); NSTAR Electric-3 Supp. (January 14, 2010); WMECo-2 Supp. (January 15, 2010); Unitil-1, Tab 6 Supp. (January 21, 2010); Table IV.B.3.1)). SBC funds are collected and allocated to each customer sector in proportion to the sectors contribution to SBC funds (Exh. Common 1, at 55-56).

C. Forward Capacity Market

The Program Administrators anticipate receiving a statewide total of \$34,660,844 in FCM revenues from 2010 through 2012, based on energy efficiency measures projected to be

---

<sup>48</sup> The Program Administrators also consider funds carried over from the previous year's program implementation, whether positive or negative, as a factor in the amount of funds available in each program year (Exh. Common 1, at 53-54).

<sup>49</sup> Exhs. Common 1, at 54, 56; NG-6 Supp. (January 14, 2010); NSTAR-3 Supp. (January 14, 2010); WMECo-2 Supp. (January 15, 2010); Unitil-1, Tab 6 Supp. (January 21, 2010); CLC-1, exh. E Supp.



installed through their programs.<sup>50</sup> Each Program Administrator's projection of individual FCM revenues is based on its bidding strategy (Exhs. DPU-National Grid 1-2; DPU-NSTAR Electric 1-1; DPU-WMECo 1-1; DPU-Compact 1-2; DPU-Unitil 1-1). The Program Administrators propose to apply all proceeds from the FCM to energy efficiency programs, as they did in their 2008 and 2009 energy efficiency plans (Exhs. DPU-National Grid 1-3; DPU-NSTAR Electric 1-2; DPU-WMECo 1-2; DPU-Compact 1-3; DPU-Unitil 1-2). The Program Administrators propose to allocate these funds across customer sectors according to each sector's percentage of contribution to SBC funds (Exh. Common 1, at 58 n.1).

D. Regional Greenhouse Gas Initiative

The Program Administrators project that for 2010 through 2012, \$145,907,860 in proceeds from Massachusetts' participation in RGGI will be available to fund energy efficiency programs.<sup>51</sup> The Program Administrators determined this amount using the following assumptions: (1) proceeds from four RGGI auctions will be received in a given year; (2) the number of allowances offered in each auction is based on the amount of allowances to be sold in Massachusetts as derived from 310 C.M.R. § 7.70; (3) the clearing price is estimated from New York Mercantile Exchange quotes dated October 14, 2009; (4) 80 percent of the Massachusetts proceeds from RGGI will go to Program Administrators; and (5) each Program Administrator will receive RGGI proceeds in accordance with the Program Administrator's percentage of statewide sales (Tr. 5, at 22-25; Exhs. Common 1 at 59-60; DPU-National

---

<sup>50</sup> Exhs. NG-6 Supp. (January 14, 2010); NSTAR-3 Supp. (January 14, 2010); WMECo-2 Supp. (January 15, 2010); Unitil-1, Tab 6 Supp. (January 21, 2010).

<sup>51</sup> Exhs. NG-6 Supp. (January 14, 2010); NSTAR-3 Supp. (January 14, 2010); WMECo-2 Supp. (January 15, 2010); Unitil-1, Tab 6 Supp. (January 21, 2010).

Grid 1-5; DPU-NSTAR Electric 1-4; DPU-WMECo 1-4; DPU-Compact 1-5; DPU-Unitil 1-4). The Program Administrators propose to allocate these funds across customer sectors according to each sector's percentage of contribution to SBC funds (Exh. Common 1, at 61 n.5).

E. Outside Funding

The Compact is the only Program Administrator that will receive outside funding for its energy efficiency programs in 2010. All Program Administrators anticipate that they will obtain program funding through outside sources in 2011 and 2012 (Exh. Common 1, at 62-67).<sup>52</sup> The Program Administrators have set statewide target levels of outside funding for energy efficiency programs at \$100 million in 2011 and \$200 million in 2012 (Exh. Common 1, at 66). The Program Administrators propose to use 60 percent of any outside funding to directly offset program costs, while the remaining 40 percent will be used to provide capital to customers, which customers will repay through on-bill financing or other mechanisms (Exh. Common 1, at 66).

The Compact has been awarded two grants, both of which will be used to reduce the customer bill impacts in 2010 (Exh. CLC 1, exhs. F, G). The first grant, from the United States Department of Energy, is for \$736,700 (Exh. CLC 1, exh. F). The second grant, from the United States Department of Agriculture, is for \$100,000 (Exh. CLC 1, exh. G).

---

<sup>52</sup> The Program Administrators explain that outside funding could include traditional lending sources, such as banks, or non-traditional sources, such as retailers and other private entities, with the Program Administrators acting to bring customers together with lenders in order to affect a loan for an energy efficiency project. Outside capital might also be raised through the sale of tax-exempt bonds or other government initiatives (Exh. Common 1, at 64).

F. Energy Efficiency Surcharge

Each Program Administrators proposes to implement an EES to supply all additional funds required beyond the SBC, funds from FCM and RGGI, and outside funding sources (Exh. Common 1, at 68-69). The Program Administrators state that they intend to collect the funds through a separate surcharge from each customer class in the following manner, in accordance with the Guidelines § 3.2.1.6:

- The surcharge to be charged to low-income customers will be calculated by dividing (1) the amount of additional revenue required to fund the low income programs, by (2) total Program Administrator-wide (i.e., the sum of all customer sectors) kWh sales;
- the surcharge to be charged to residential customers will be calculated as the sum of (1) the amount of additional revenue required to fund residential programs divided by total residential kWh sales and (2) the low-income surcharge, as described above; and
- the surcharge to be charged to C&I customers will be calculated as the sum of (1) the amount of additional revenue required to fund C&I programs divided by total C&I kWh sales and (2) the low-income surcharge, as described above

(Exh. Common 1, at 68-69).

G. Positions of the Parties

1. Program Administrators

The Program Administrators contend that the cost recovery structure proposed in the Three-Year Plans complies with the Green Communities Act, D.P.U. 08-50-B, and established Department practice (National Grid Brief at 37; NSTAR Electric Brief at 38; WMECo Brief at 37; Compact Brief at 40; Unitil Brief at 36). In addition to using the SBC and proceeds from the FCM and RGGI as funding sources, the Program Administrators state that they are committed to accessing other sources of funding, such as on-bill financing and outside funding,

prior to collecting funds from customers through an EES (National Grid Brief at 38; NSTAR Electric Brief at 39; WMECo Brief at 38; Compact Brief at 41; Unitil Brief at 37).

The Program Administrators argue that the anticipated levels of outside funding proposed in the Three-Year Plan is ambitious but realistic (National Grid Brief at 38-39; NSTAR Electric Brief at 39-40; WMECo Brief at 38-39; Compact Brief at 41-42; Unitil Brief at 37-38). The Program Administrators state that they have formed a working group to help them reach outside funding targets and address barriers to securing outside funding (Exh. Common 1, at 64). If these targets are not reached by September 1, 2010, the Program Administrators propose to re-file their 2011 and 2012 goals and budgets on or about September 30, 2010 (Exh. Common 1, at 66). As part of a September 30, 2010 filing, the Program Administrators state that they will adjust savings goals and bill impacts based on the actual levels of outside funding.<sup>53</sup> The Program Administrators state that all reporting related to outside funding will be addressed through the existing quarterly and annual reporting required under the Green Communities Act and/or in midterm modification filings as allowed by D.P.U. 08-50-A (National Grid Reply Brief at 18; WMECo Reply Brief at 15; Compact Reply Brief at 15-16).

National Grid asserts that neither the Program Administrators nor the Department is responsible for the allocation or spending of American Recovery and Reinvestment Act (“ARRA”) stimulus funds and, accordingly, AIM’s request that the Department identify, analyze, and report on all ARRA funding for efficiency programs is not feasible (National Grid

---

<sup>53</sup> National Grid Brief at 39; NSTAR Brief at 40; WMECo Brief at 40; Compact Brief at 42; Unitil Brief at 38; Exh. Common 1, at 66.

Reply Brief at 27). In response to concerns raised by the Attorney General regarding on-bill financing for C&I customers, National Grid contends that it will review the program design with the Council and keep the Council and the Department apprised of any material updates through quarterly reports (National Grid Reply Brief at 19).

In response to the Attorney General's argument that the Program Administrators should report the use of Residential Energy Conservation Services ("RCS/MassSAVE")<sup>54</sup> funds, NSTAR Electric, the Compact, and Unitil state that this reporting requirement is unnecessary because the Green Communities Act establishes a sufficient reporting process for the use of energy efficiency funds.<sup>55</sup> National Grid and WMECo state that the Attorney General's request is satisfied because they track and report costs separately, by program, including RCS (National Grid Reply Brief at 18; WMECo Reply Brief at 15).

In response to TECs recommendation that National Grid and NSTAR Electric implement an accelerated application process for C&I customers, National Grid states that the Council is a more appropriate forum for discussing program design (National Grid Reply Brief at 29).

## 2. Attorney General

The Attorney General recommends that the Department require the Program Administrators to track and report on RCS funds separate and apart from the energy efficiency

---

<sup>54</sup> RCS/MassSAVE is a program that provides residential customers with information and recommendations on making their home more energy efficient (Exh. Common 2, at 116-117). See G.L. c. 164 App., § 2-7 et seq. The Program also helps customers initiate the process of installing the energy upgrades (Exh. Common 2, at 116-120).

<sup>55</sup> NSTAR Reply Brief at 4, n.2; Compact Reply Brief at 14; Unitil Reply Brief at 4, n.2.

funds collected through the SBC and the EERF (Attorney General Brief, App. A, B, C, D, E).

The Attorney General explains that this will ensure that RCS funds are used solely to fund MassSave audits and not other energy efficiency programs (Attorney General Brief, App. A, B, C, D, E).

The Attorney General recommends that the Department require the Program Administrators to document and report on their ability to obtain outside funding for 2011 and 2012 (Attorney General Brief, App. A, B, C, D, E). According to the Attorney General, the Program Administrators should identify the method for seeking and pursuing particular sources of outside funding (Attorney General Brief, App. A, B, C, D, E). In addition, the Attorney General argues that the Program Administrators should provide data, including traditional bill impact analyses, to document how the acquisition of outside funding will affect cost recovery through the EERF (Attorney General Brief, App. A, B, C, D, E). Finally, the Attorney General recommends that the Department require National Grid to identify whether it intends to continue to fund its C&I on-bill financing program with internal funding (Attorney General Brief, App. A at pt. 8).

### 3. DOER

DOER states that, despite the current economic downturn, it is cautiously optimistic that the Program Administrators will succeed in securing access to outside funds for energy efficiency programs (DOER Brief at 13). DOER contends that, regardless of the source, the level of outside funding will have an impact on the EERF (DOER Brief at 13). If the Program Administrators are unable to access sufficient additional outside funding, program budgets may change by greater than 20 percent, thereby initiating petition for midterm modifications with

the Department (DOER Brief at 13-14). DOER supports the use of midterm modifications as a Department approved mechanism for the Program Administrators to amend budget levels (DOER Reply Brief at 14).

4. TEC

TEC states that National Grid and NSTAR Electric's budget should include funding for an accelerated application process<sup>56</sup> as a financing option for C&I customers (TEC Brief at 3). TEC states that the accelerated application process will integrate Program Administrators' statewide efforts thereby ensuring that program funding is available for C&I customers throughout the course of the Three-Year Plans (TEC Brief at 3).

5. ENE

ENE contends that the Program Administrators have committed to working with the Council to identify and secure outside funding sources (ENE Brief at 13). ENE, therefore, recommends that the Department acknowledge and support the Program Administrators' efforts to procure outside funding (ENE Brief at 13).

6. AIM

AIM contends that it is unclear whether the Department has sufficient data to analyze the availability of outside funding (AIM Brief at 7). In addition, AIM argues that the availability of ARRA stimulus funds could inhibit the ability of Program Administrators to obtain outside funding (AIM Brief at 7-8). AIM states that ARRA stimulus funds are granted directly to community organizations, cities, and towns for energy efficiency programs, outside of Program Administrators' coordinated energy efficiency plans (AIM Brief at 7-8). AIM

---

<sup>56</sup> TEC does not define the accelerated application process.

states that, compared to a Program Administrator-sponsored program, the current ARRA funding disbursements result in a less robust and coordinated approach, with less oversight, measurement, and verification (AIM Brief at 7-8). AIM suggests that the Department identify, analyze, and report on all other efficiency programs to ensure that proposed utility programs are not duplicative (AIM Brief at 8).

#### H. Analysis and Findings

##### 1. Introduction

Pursuant to the Green Communities Act, energy efficiency programs can be funded by: (1) the SBC of \$0.0025 per kWh, collected from ratepayers; (2) proceeds from the FCM; (3) proceeds from cap and trade pollution control programs including, but not limited to, not less than 80 percent of amounts generated by the carbon dioxide allowance trading mechanism established under the RGGI Memorandum of Understanding, and the NOx Allowance Trading Program; and (4) other funding as approved by the Department. G.L. c. 25, § 19(a). The Green Communities Act requires that Program Administrators allocate dollars from these funding sources to customer classes in proportion to their contributions to those funds. G.L. c. 25, § 19(c). In its review of other funding sources, the Department must consider: (1) the effect of any rate increases on consumers; (2) the availability of other private or public funds; and (3) whether past programs have lowered the cost of electricity to consumers G.L. c. 25, § 19(a).

AIM notes that the Program Administrators may experience funding shortfalls due to decreases in the SBC, which is based on kWh usage, and RGGI (AIM Brief at 9). AIM recommends that the Department not permit recovery of any such shortfall via the EERF to



ensure that the Program Administrators closely monitor program spending and budgets (AIM Brief at 10). Finally, AIM argues that the EERF should be shown as a separate charge on the bill to increase transparency and allow customers to better manage their energy usage (AIM Brief at 12).

## 2. Proceeds from the Forward Capacity Market

Each Program Administrator explains that it has chosen an FCM bidding strategy based on company specific-characteristics. This bidding strategy determines the amount of funding a Program Administrator receives from participation in the FCM.<sup>57</sup> Each Program Administrator proposes (1) to apply all proceeds received in 2010 through 2012 from the participation of its energy efficiency programs in the FCM to its energy efficiency budget, and (2) to allocate those proceeds to each customer class in proportion to each class' kWh consumption, consistent with the Department-approved treatment of FCM proceeds during 2008 and 2009.<sup>58</sup> The Department finds that the manner in which each Program Administrator calculated its FCM revenue and allocated that revenue to its customer classes is consistent with the Green Communities Act and the Guidelines. G.L. c. 25, § 19(a); Guidelines § 3.2.1.3.

---

<sup>57</sup> Exhs. DPU-National Grid 1-2; DPU-NSTAR Electric 1-1; DPU-WMECo 1-1; DPU-Compact 1-2; DPU-Unitil 1-1.

<sup>58</sup> Exhs. DPU-National Grid 1-3; DPU-NSTAR Electric 1-2; DPU-WMECo 1-2; DPU-Compact 1-3; DPU-Unitil 1-2; Common 1, at 57-58; D.P.U. 08-8, at 26-29; D.P.U. 08-129, at 40-41; D.P.U. 08-10, at 25-27; D.P.U. 08-117, at 40; D.P.U. 08-47, at 26-28; D.P.U. 08-118, at 38-39; D.P.U. 08-30, at 21; D.P.U. 08-126, at 37-38.

### 3. Regional Greenhouse Gas Initiative Proceeds

In the Department's Orders approving the Program Administrators' 2009 energy efficiency plans, the Department directed the Program Administrators to determine RGGI proceeds using assumptions regarding (1) the number of RGGI auctions from which they will receive proceeds during the program year, (2) the number of allowances to be offered in each auction, (3) the applicable clearing price for each auction; and (4) the RGGI auction dollars to be allocated to the Program Administrators during the program year. D.P.U. 08-129, at 41-44; D.P.U. 08-117, at 41-43; D.P.U. 08-118, at 39-42; D.P.U. 08-126, at 38-41. The Program Administrators relied on a number of assumptions when determining the amount to be received from RGGI, including: (1) Program Administrators will receive proceeds from four auctions in a given year; and (2) each Program Administrator will receive RGGI proceeds in accordance with the Program Administrator's percentage of statewide sales.<sup>59</sup> The Program Administrators propose to allocate RGGI proceeds to each customer class in proportion to each class' kWh consumption, consistent with the Department-approved treatment of FCM revenues.<sup>60</sup> The Department finds that the manner in which each Program Administrator calculated its RGGI revenue and allocated that revenue to its customer classes is consistent with the Green Communities Act and the Guidelines. G.L. c. 25, § 19(a); Guidelines § 3.2.1.4.

---

<sup>59</sup> Tr. 5, at 22-25; Exhs. Common 1 at 59-60; DPU-National Grid 1-5; DPU-NSTAR Electric 1-4; DPU-WMECo 1-4; DPU-Compact 1-5; DPU-Unitil 1-4.

<sup>60</sup> Tr. 5, at 22; Exhs. Common 1 at 59-60; DPU-National Grid 1-5; DPU-NSTAR Electric 1-4; DPU-WMECo 1-4; DPU-Compact 1-5; DPU-Unitil 1-4.

#### 4. Outside Funding Sources

Section 3.2.1.5 of the Guidelines requires Program Administrators to allocate other funding revenue to their residential, low-income, and C&I customer sectors in proportion to the sector's kWh consumption. The Guidelines further provide that each Program Administrator's Three-Year Plan must include a detailed description of all other funding revenue sources that it considered, including, but not limited to: (1) other funding sources identified by the electric Program Administrator; (2) whether or not the electric Program Administrator attempted to access those other funding revenue sources; (3) if the electric Program Administrator chose not to access those other funding revenues, the reason behind that decision; (4) a statement of the amount of the other funding revenues available; (5) whether the other funding revenue source is a recurring source; (6) any conditions placed on the use of the other funding revenue sources; and (7) whether receiving other funding revenue allowed the electric Program Administrator to seek less money from ratepayers. Guidelines § 3.2.1.5.

No Program Administrator except the Compact proposed new sources of outside funding for 2010 (Tr 1, at 253-254). Instead, the Program Administrators' 2010 savings goals are based on existing levels of outside funding in the form of the HEAT Loan program, (Exh. Common 1, at 65-66). Although these Program Administrators did not identify new sources of outside funding for 2010, the Department notes that the Program Administrators have been pursuing private investment sources for 2010 (See Exh. Common 1, at 65-67). Accordingly, the Department concludes that the Program Administrators took sufficient action regarding the identification of outside funding for program year 2010.

For 2010, the Compact identified two sources of outside funding that it intends to apply to its energy efficiency budget, thus reducing the dollars required to be collected from customers through its EERF. The Department concludes that the Compact took sufficient action regarding the identification of outside funding for program year 2010. Further, the Department finds that the manner in which the Compact calculated its outside revenue and allocated that revenue to its customer classes is consistent with the Green Communities Act and the Guidelines. G.L. c. 25, § 19(a); Guidelines § 3.2.1.5.

On a statewide basis, the Program Administrators include funding equal to \$60 million in 2011, and \$120 million in 2012 to offset their EES (Exh. Common 1, at 62-67). The Program Administrators identify several potential sources from which they could secure such funding and state that they have convened a working group to explore this issue (Exh. Common 1, at 64).

Specifically, for 2011 and 2012, the Program Administrators have: (1) identified a targeted amount of outside funding; (2) described potential outside funding sources being considered; (3) detailed, in theory, the conditions that could be placed on the use of the funding sources; and (4) presented an assumption that 60 percent of outside funding is planned to directly offset program costs so they could seek less money to fund energy efficiency from ratepayers (Tr. 2, at 227-228, 230, 240, 250-251; Exh. Common 1, at 63-67). The Department recognizes that the 2011 and 2012 outside funding targets are projections. As such the Program Administrators were unable to provide detailed information on the funding sources. See Guidelines § 3.2.1.5.

The Department recognizes that the Program Administrators have not yet had the opportunity to fully explore all sources of outside funding and that DOER has convened informal working sessions to discuss possible outside funding approaches and initiatives (Exh. Common 1, at 64). The Program Administrators have indicated that they plan to continue to participate actively in these multi-party efforts (Exh. Common 1, at 64). Once funding sources are more adequately identified, the Program Administrators state they will file the updated savings goals and program budgets with the Council by September 30, 2010 (Tr. 2, at 257; Exh. Common 1, at 66-67). As discussed in Section X, below, to provide the Department with sufficient information to assess proposed outside funding levels for 2011 and 2012, the Department directs the Program Administrators to submit documentation regarding their efforts to secure such funding for these years, as required by Section 3.2.1.5 of the Guidelines, at the time of the filing of their next Annual Reports. The Department fully expects that the electric Program Administrators will aggressively pursue all potential sources of outside funding for 2011 and 2012 before proposing to collect costs from ratepayers and report to the Department on their efforts as required by Guidelines.<sup>61</sup>

#### 5. Energy Efficiency Surcharge

Each Program Administrator proposes to collect any additional funding required beyond the amount provided by the SBC, FCM, RGGI, and outside funding sources through an EES. The Green Communities Act allows Program Administrators to recover EES revenue through a fully reconciling funding mechanism. G.L. c. 25, § 21(b)(2)(vii). The Department has

---

<sup>61</sup> In addition, as discussed in Section VIII, below, the Department directs the Program Administrators to propose a performance metric designed to incent them to aggressively pursue all potential sources of outside funding.

established the manner by which Program Administrators should calculate the EES.

Guidelines § 3.2.1.6. The Department approved fully reconciling funding mechanism tariffs<sup>62</sup> (i.e., EERF tariffs) as part of each Program Administrator's 2009 energy efficiency plan.<sup>63</sup> If a Program Administrator intends to seek LBR recovery, the Department instructed each Program Administrator to refile its EERF tariff on or before February 1, 2010 to allow for further investigation.<sup>64</sup> The Department will review each Program Administrator's<sup>65</sup> EERF tariff and factor in these separate proceedings.<sup>66</sup>

In determining whether Program Administrators are allowed to implement an EES, the Department must consider: (1) the effect of any rate increases on consumers; (2) the

---

<sup>62</sup> The Program Administrators refer to the tariff describing the fully reconciling funding mechanism tariff as the EERF tariff. This mechanism is referred to as the EES in the Guidelines. Guidelines § 3.1.2.6.

<sup>63</sup> Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid, D.P.U. 08-129 (2009); NSTAR Electric Company, D.P.U. 08-117 (2009); Fitchburg Gas and Electric Light Company d/b/a Unitil, D.P.U. 08-126 (2009); Western Massachusetts Electric Company, D.P.U. 08-118 (2009).

<sup>64</sup> Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid, D.P.U. 08-129-B at 3-4 (October 26, 2009); NSTAR Electric Company, D.P.U. 08-117-B at 3-4 (October 26, 2009); Fitchburg Gas and Electric Light Company d/b/a Unitil, D.P.U. 08-126-B at 3-4 (October 26, 2009); Western Massachusetts Electric Company, D.P.U. 08-118-B at 3-4 (October 26, 2009).

<sup>65</sup> The Compact proposes that NSTAR Electric be permitted to collect an EES on its behalf (Exh. CLC-1, at 16). The Compact's EES factor will be reviewed in the context of the petition expected to be filed by NSTAR Electric pursuant to D.P.U. 08-117-B at 3-4 (Tr. 4 (Compact) at 721-722; Exh. CLC-1, at 16).

<sup>66</sup> The Attorney General with support from electric Program Administrators proposed to investigate any issues related to the EES in a separate docket. See Investigation by the Department of Public Utilities on its own Motion into Updating its Energy Efficiency Guidelines, D.P.U. 08-50, Attorney General Comments, September 22, 2009, at 3; Program Administrators' Comments, September 29, 2009, at 3.

availability of other private or public funds; and (3) whether past programs have lowered the cost of electricity to consumers. G.L. c. 25, § 19(a). First, regarding the effect of any rate increases on consumers, as discussed in Section VII below, the Department finds that the rate increases that result from individual Program Administrator's proposed EES are acceptable. Second, regarding the availability of outside funding, as discussed above, the Department concludes that the Program Administrators took sufficient action regarding the identification of outside funding for program year 2010. The Department, however, has directed the Program Administrators to file updated information regarding outside funding levels for 2011 and 2012.

Lastly, with respect to whether past programs have lowered the cost of electricity to consumers, the extent to which the implementation of energy efficiency programs may lower electricity costs is explicitly taken into account in determining cost-effectiveness. Program participants will experience lower electricity costs as a result of the avoided generation costs that are accounted for in the cost-effectiveness analysis. Furthermore, all customers will experience lower electricity costs as a result of the DRIPE benefits and the avoided transmission and distribution costs that are projected to result from these programs.

Accordingly, we find that customer costs have decreased as a result of past energy efficiency programs. After the consideration of (1) the effect of any rate increases on consumers; (2) the availability of other private or public funds; and (3) whether past programs have lowered the cost of electricity to consumers, the Department finds that each Program Administrator may recover the funds necessary to implement the proposed budgets included herein through an

EES.<sup>67</sup> As noted above, each Program Administrators' EES factor and tariff will be addressed in separate proceedings. D.P.U. 08-129-B at 3-4; D.P.U. 08-117-B at 3-4; D.P.U. 08-126-B at 3-4; D.P.U. 08-118-B at 3-4; Tr. 4 (Compact) at 721-722; Exh. CLC-1, at 16.

#### 6. Energy Efficiency Surcharge Adjustments

AIM notes that funds from the SBC and RGGI may not materialize as proposed in the Individual Three-Year Plans. AIM requests that the Department explicitly instruct the Program Administrators to closely monitor program budgets and ensure that the EES is not increased to make up for reductions in other funding sources (AIM Brief at 9-10).

The Green Communities Act allows for a fully reconciling funding mechanism which may include, but shall not be limited to, the charge authorized by G.L. c. 25, § 19. G.L. c. 25, § 21(b)(2)(vii). By authorizing a "fully reconciling" funding mechanism, the Green Communities Act clearly allows the Program Administrators to make up for shortfalls in other funding sources through the EES. Accordingly, we direct the Program Administrators to utilize the EES to make up for any shortfalls that may occur in the other funding sources included in the Three-Year Plan energy efficiency program budgets.

#### 7. Carryover Funds

In determining its EES, a Program Administrator takes into account funds carried over from the previous year's program, whether positive or negative (Exh. Common 1, at 53-54). The Department directs each Program Administrator to include a full explanation of any carryover costs in its annual EES filing.

---

<sup>67</sup> As noted above, the Department directs the Program Administrators to submit documentation regarding their efforts to secure outside funding for 2011 and 2012, consistent with the requirements of the Green Communities Act and Guidelines.



Additionally, all Program Administrators, with the exception of National Grid, have indicated that any deficit or balance remaining at the end of a program year will be assessed as carryover to the same sector from which it was derived at the start of the following program year (Tr. 5, at 28-30). National Grid, however, states that it subsidizes the carryover originating from the low-income sector by the residential and C&I sectors, based on proportion of sales, at the beginning of the following program year (Tr. 4 (National Grid) at 798-802). This practice is not consistent with the Green Communities Act, which requires that funds shall be collected and allocated in accordance with each class contribution. G.L. c. 25, §19(c). The Department directs National Grid to discontinue this practice beginning in program year 2010.

#### 8. Federal Stimulus Funds

AIM is critical of the use of ARRA funding that has been given to community organizations, cities, and towns, and suggests that the Department identify, analyze, and report on other efficiency programs that are underway at the same time as the Three-Year Plans to ensure that the proposed utility programs are not duplicative (AIM Brief at 8). The Department has no oversight role in the awarding or use of ARRA funds. We recommend, however, that AIM and the Program Administrators collaborate with the cities and towns that have been granted stimulus funds to ensure energy efficiency savings are maximized.

#### 9. RCS Funds

Regarding the Attorney General's recommendation that the Program Administrators track and report RCS/MassSave funds separately from energy efficiency funds, as stated in D.P.U. 08-50-A, competing statutory and regulatory requirements mean that RCS proposals must continue to be filed and reviewed on an annual basis in separate dockets.

D.P.U. 08-50-A at 66, citing G.L. c. 164, App. § 2-7(b). As part of our investigation of the RCS filings, the Department is required to annually review and reconcile the RCS income and expenses incurred by the distribution companies during the preceding year in carrying out the RCS program. D.P.U. 08-50-A at 66, citing G.L. c. 164, App. § 2-7(f), ¶ 4, 220 C.M.R. § 7.09. The RCS filings contain information on the amounts collected and expended on the RCS program during the prior year. G.L. c. 164, App. § 2-7(f), ¶ 4. During the RCS proceedings, the Department and parties review the funds collected and spent on the RCS program. In addition, the Department and parties will be able to review spending on all other energy efficiency programs each year through the Annual Reports. We find that these review processes adequately addresses the Attorney General's concerns, as they will ensure that funds collected through the RCS surcharge are spent only on the RCS program.

## VII. BILL IMPACTS

### A. Introduction

In Section VI, above, the Department found that the manner in which each Program Administrator calculated its EES (which will provide funding for its energy efficiency budget beyond that provided by the SBC, FCM, RGGI, and outside funding sources) is consistent with the requirements of the Green Communities Act and the Department's Guidelines. G.L. c. 25, § 21(b)(2)(vii); Guidelines § 3.2.1.6. The Green Communities Act requires the Department, in our review of funding sources such as the EES, to consider the effect of any resulting rate increases on consumers. G.L. c. 25, § 19(a).

In D.P.U. 08-50-A, the Department set forth the considerations that would guide its review of rate and bill impacts arising from the funding of electric efficiency programs through

a mechanism such as an EES. D.P.U. 08-50-A at 56-60. To fulfill the goals stated in D.P.U. 08-50-A and to provide a consistent method by which each Program Administrator would determine and present the rate and bill impacts, the Department convened a bill impact working group (“Bill Impact Working Group”) to develop the appropriate models and templates (“Bill Impact Model”). On September 29, 2009, the Bill Impact Working Group submitted its report to the Department. In D.P.U. 08-50-B, the Department approved the Bill Impact Model developed by the working group. D.P.U. 08-50-B at 18-19.

B. Bill Impact Model

The Bill Impact Model compares the rate and bill impacts that result from two scenarios: (1) energy efficiency programs that are funded through “current” funding levels (SBC, FCM, and RGGI) and (2) energy efficiency programs that are funded through current funding levels plus “incremental” funding through the EES.<sup>68</sup> The difference between the incremental and current scenarios represents the rate and bill impact associated with implementation of the EES.

The Bill Impact Model calculates rate and bill impacts for three categories in each of its residential, low-income and C&I customer classes: (1) a non-participant, who is a customer that does not participate in an energy efficiency program; (2) a participant, who is a customer that participates in an energy efficiency program; and (3) a “rate class total,” that indicates the

---

<sup>68</sup> Tr. 1, at 31; Exhs. NG-7 (November 13, 2009); NSTAR-3 (November 13, 2009); WMECO-3 (December 8, 2009); CLC 1, exh. H (December 14, 2009); Unitil-6 (November 18, 2009).

effects of efficiency savings across the customer class as a whole.<sup>69</sup> Under the Bill Impact Model, both program participants and non-participants experience the same rate impacts that result from implementation of the EES: (1) an increase in rates equal to the value of the surcharge; and (2) a decrease in rates due to reduced transmission and distribution costs, and reduced supply costs,<sup>70</sup> both of which result from the additional savings achieved by the incremental funding provided by the EES (Tr. 1, at 45-55).

Program participants, however, experience an additional bill reduction through savings that result from the energy efficiency measures installed through a program (Tr. 1, at 45-55). The bill impacts for program participants are primarily dependent on the participant savings assumptions in the Bill Impact Model. The rate class total incorporates the cumulative effect across all customers of the savings experienced by participants (Tr. 1, at 94-99). The Bill Impact Model calculates rate and bill impacts for each customer category during the three-year period, 2010 through 2012, based on the costs and savings that occur during the period.

### C. Program Administrator Proposals

The Program Administrators state that they have prepared and filed their respective bill impacts in accordance with the D.P.U. 08-50-B and the Bill Impact Model.<sup>71</sup> Each Program

---

<sup>69</sup> Tr. 1, at 54; 94-99; Exhs. NG-7 (November 13, 2009); NSTAR-3 (November 13, 2009); WMECo-3 (December 8, 2009); CLC 1, exh. H (December 14, 2009); Unitil-6 (November 18, 2009).

<sup>70</sup> These reduced supply costs are referred to as DRIPE benefits, as described more fully in Section V.B, above.

<sup>71</sup> Exhs. NG-7 (November 13, 2009); NSTAR-3 (November 13, 2009); WMECo-3 (December 8, 2009); CLC 1, exh. H (December 14, 2009); Unitil-6 (November 18, 2009).

Administrator has presented bill impacts based on its EES calculated (1) with and without outside funding as a funding source during the three-year period; and (2) with and without LBR recovery as a budget item during the three-year period.<sup>72</sup> Under all scenarios, each Program Administrator determined its EES based on the level of SBC, FCM, and RGGI revenue (and allocation of that revenue to customer classes) included in its Three-Year Plan.

D. Positions of the Parties

1. Program Administrators

The Program Administrators contend that the model used to develop bill impacts is the result of a collaborative effort of the Bill Impact Working Group and complies with all Department directives in D.P.U. 08-50-A.<sup>73</sup> The Program Administrators argue that the bill impacts resulting from the Three-Year Plans are acceptable and should be approved by the Department (National Grid Brief at 35; NSTAR Electric Brief at 36; WMECo Brief at 35; Compact Brief at 37-38; Unitil Brief at 34).

The Program Administrators state that they have submitted multiple iterations of the Bill Impact Model using different assumptions in order to provide the Department with a diverse and comprehensive data set for analysis and consideration (National Grid Reply Brief at 14-15; NSTAR Electric Reply Brief at 9-10; WMECo Reply Brief at 12-13; Compact Reply Brief at 11; Unitil Reply Brief at 9-10). The Program Administrators contend, however, that

---

<sup>72</sup> Exhs. NG-7 (November 13, 2009); NSTAR-3 (November 13, 2009); WMECo-3 (December 8, 2009); CLC 1, exh. H (December 14, 2009); Exh. Unitil-6 (November 18, 2009).

<sup>73</sup> Exh. Common 1, at 36; National Grid Reply Brief at 15; NSTAR Reply Brief at 9-10; WMECo Reply Brief at 6, 12; Compact Reply Brief at 11; Unitil Reply Brief at 9-11.

bill impacts for each rate class as a whole are most appropriate to determine whether the Three-Year Plans result in reasonable bill impacts for customers (National Grid Brief at 35; NSTAR Electric Brief at 36; WMECo Brief at 35; Compact Brief at 37-38; Unitil Brief at 34).

Regarding the Attorney General's request that Program Administrators also submit a traditional bill impact analysis, the Program Administrators argue that the Bill Impact Model approved in D.P.U. 08-50-B (which does not include a traditional bill impact analysis) provides a reasonable estimate of bill impacts.<sup>74</sup> The Program administrators contend that the Bill Impact Model complies with all Department directives in D.P.U. 08-50-A and it would be unnecessarily costly and burdensome to present multiple bill impact analyses.<sup>75</sup> Further, the Program Administrators argue that a traditional bill impact analysis alone is not appropriate because it may not include elements that the Department required in D.P.U. 08-50-A (National Grid Reply Brief at 15; NSTAR Electric Reply Brief at 10; WMECo Reply Brief at 12; Compact Reply Brief at 11; Unitil Reply Brief at 10).

The Program Administrators state that they intend to update bill impacts only if there are significant changes proposed to the Three-Year Plans.<sup>76</sup> The Program Administrators state, however, that they likely will file updated bill impacts as part of their annual EERF filings, thereby satisfying the Attorney General's request for midterm bill impact updates (National

---

<sup>74</sup> National Grid Reply Brief at 14-15; NSTAR Reply Brief at 9-10; WMECo Reply Brief at 12-13; Compact Reply Brief at 11; Unitil Reply Brief at 9-10.

<sup>75</sup> National Grid Reply Brief at 14-15; NSTAR Reply Brief at 9-10; WMECo Reply Brief at 12-13; Compact Reply Brief at 11; Unitil Reply Brief at 9-10.

<sup>76</sup> National Grid Reply Brief at 15-16; NSTAR Reply Brief at 10-11; WMECo Reply Brief at 12-13; Compact Reply Brief at 11; Unitil Reply Brief at 10-11.

Grid Reply Brief at 15-16; NSTAR Electric Reply Brief at 10-11; WMECo Reply Brief at 7, 12-13, 15; Compact Reply Brief at 11; Unitil Reply Brief at 9-11).

In response to AIM's recommendation that the EERFs be a separate line item on customer bills, WMECo and National Grid contend that the specific EERF requirements for each Program Administrator will be subject to additional review by the Department in separate proceedings and, as such, these proceedings are not the proper forum for the Department to consider AIM's arguments regarding bill presentation of the EERF (WMECo Reply Brief at 6; National Grid Reply Brief at 27).

## 2. Attorney General

The Attorney General states that as a member of the Bill Impact Working Group, she endorsed the Bill Impact Model the group developed (Attorney General Brief at 21-23). She argues, however, that certain issues became apparent only when the model was applied using each Program Administrator's data (Attorney General Brief at 21, 23 n.8). The Attorney General states that there have been many iterations of the Bill Impact Model submitted in the Three-Year Plan proceedings and that each iteration raises issues with respect to the model's design and application (Attorney General Brief at 22). Specifically, the Attorney General argues that the Bill Impact Model produces inaccurate results due to the method used to determine energy efficiency spending levels (Attorney General Brief at 23 n.9). Additionally, she argues that assuming energy savings to a point where a participant's bill impact is zero produces results that provide little value to the Department, intervenors, or customers (Attorney General Brief at 23).

The Attorney General requests that the Department reconvene the Bill Impact Working Group and require the Program Administrators to further refine the Bill Impact Model in order to provide a revised bill impact analysis (Attorney General Brief at 23-26). Specifically, the Attorney General requests that Program Administrators be required to conduct a “traditional” bill impact analysis and file annual bill impact updates.

The Attorney General states that the Bill Impact Model is very different from the traditional bill impact analysis that is generally required for companies to secure a rate adjustment (Attorney General Brief at 21). The Attorney argues that a traditional bill impact analysis will be informative because it will capture changes in rates solely due to the implementation of the Three-Year Plans (Attorney General Brief at 24).

In addition, the Attorney General argues that the bill impact analysis should be expanded to show customers the effects that specific energy efficiency measures have on a typical customer’s bill (Attorney General Brief at 23 n.8). Finally, the Attorney General states that each Program Administrator should be required to file an annual report which documents the manner in which it informed its customers about the impact their Three-Year Plan would have on their bills and the manner in which participation could eliminate or mitigate those bill impacts (Attorney General Brief at 23-26, Appendices A-G).

### 3. DOER

DOER contends that the model developed by the Bill Impact Working Group provides the Council and the Department with the proper tools to consider customer bill impacts (DOER Reply Brief at 5). DOER argues that the role of the Department is not to determine whether a precise bill impact is acceptable but rather to determine whether potential bill impacts are



adequately balanced by the benefits realized through energy savings (DOER Brief at 16; DOER Reply Brief at 3-4).

DOER contends that bill impacts for participants will be mitigated by the level of savings participants can achieve (DOER Brief at 15). DOER argues that the Council and other stakeholders are committed to keeping energy efficiency program cost drivers in check and that these entities have demonstrated collective efforts to keep potential bill impacts under control (DOER Reply Brief at 5).

DOER argues the traditional bill impact analysis suggested by the Attorney General should not be required because it is overly burdensome and will provide no new insight with respect to bill impacts for customers (DOER Brief at 15; DOER Reply Brief at 3). DOER reports that the common understanding of the Bill Impact Working Group was that the Bill Impact Model was for the Department's use and was not intended as a tool for customers (DOER Reply Brief at 2). Similarly, DOER argues that annual bill impact analyses, traditional or otherwise, need not be conducted unless the Department determines that such information is required to assess the need for a midterm plan modification (DOER Reply Brief at 4).

#### 4. ENE

ENE asserts that increase of expenditures on energy efficiency as a result of the electric Three-Year Plans will have a small impact on customer bills and produce substantial customer benefits (ENE Brief at 9). ENE argues that although customers will see an increase in bills due to higher energy efficiency budgets, they will also see direct benefits (ENE Brief at 9). ENE urges the Department to also consider other benefits not included in the bill impact

analysis, such as the creation of local energy jobs over the period of the Three-Year Plans (ENE Brief at 9).

5. TEC

In addition to energy efficiency, TEC contends that customers will experience bill increases from other mandates of the Green Communities Act and reconciling charges that are already imbedded in rates (TEC Briefs at 5-6). As such, TEC recommends that the Program Administrators be required to prepare a comprehensive summary of rate adjustments that will allow customers to budget energy costs (TEC Brief at 5). In addition, TEC argues that the EERF should be shown as a separate charge on the bill to increase conservation interest among all rate classes (TEC Brief at 5-6).

6. AIM

AIM argues that not every customer in Massachusetts will benefit from the expanded energy efficiency programs but the majority of customers will see overall bill increases as a result of the Three-Year Plans (AIM Brief at 3). AIM contends that high electricity costs inhibit the ability of Massachusetts businesses to remain competitive and that any increases will economically harm the commercial, industrial, municipal and institutional sectors of the economy (AIM Brief at 4). AIM recommends that the Department fully analyze the economic effects of the Three-Year Plans to carefully balance higher electric rates with the promotion of societal goals (AIM Brief at 4).

AIM argues that the Bill Impact Model used by the Program Administrators relies on assumptions and, as such, should only be used by the Department as a guide for reviewing bill impacts (AIM Brief at 5). In particular, AIM argues that the Program Administrators' bill

impact analysis understates actual impacts on customers (AIM Brief at 5). AIM states that the bill impact analysis fails to recognize economic and other factors that drive participation in energy efficiency programs (AIM Brief at 5). AIM explains that some C&I customers will be unable to participate because there are no applicable programs or they have previously invested in energy efficiency measures (AIM Brief at 5).

In addition, AIM notes that the bill impact analysis does not consider the EERF after 2012 (AIM Brief at 6). AIM argues that the Bill Impact Model's assumption that the EERF will be eliminated in the final year of the Three-Year Plans is inappropriate because it is impossible to install all energy efficiency projects within three years (AIM Brief at 6). AIM, therefore, recommends that the Department consider how funding sources beyond 2012 are considered in the Bill Impact Model (AIM Brief at 7).

AIM urges the Department to look at the cumulative costs to ratepayers as a result of all mandates of the Green Communities Act and not to analyze these costs in an isolated or segmented fashion (AIM Brief at 9). AIM contends that the cumulative impact of the EERF and other energy charges will have a significant impact on customers (AIM Brief at 9). AIM argues that as energy efficiency decreases demand, the cost for all customers will increase as the utilities must recover the costs associated with other provisions of the Green Communities Act (AIM Brief at 9).

AIM notes that the Program Administrators may experience funding shortfalls due to decreases in the SBC, which is based on kWh usage, and RGGI (AIM Brief at 9). AIM recommends that the Department not permit recovery of any such shortfall via the EERF to ensure that the Program Administrators closely monitor program spending and budgets (AIM

Brief at 10). Finally, AIM argues that the EERF should be shown as a separate charge on the bill to increase transparency and allow customers to better manage their energy usage (AIM Brief at 12).

E. Analysis and Findings

1. Green Communities Act

The Green Communities Act requires the Program Administrators to jointly develop, in coordination with the Council, a Statewide Plan that provides for the acquisition of all available energy efficiency and demand reduction resources that are cost-effective. G.L. c. 25, § 21(b). Similarly, the Green Communities Act requires the Department to ensure that each Program Administrator's Three-Year Plan provides for the acquisition of all cost-effective energy efficiency and demand reduction resources that are available. G.L. c. 25, §§ 19(a), 21(a), 21(d)(2). In recognition of the fact that the acquisition of all cost-effective energy efficiency could require funding above that provided through existing funding sources (i.e., the SBC, FCM, and RGGI), the Green Communities Act provides that Program Administrators may collect additional revenue from ratepayers through a mechanism such as the EES. G.L. c. 25, § 19(a). The Green Communities Act requires the Department to consider, among other things, "the effect of rate increases on residential and commercial customers" when reviewing proposals for increased funding of energy efficiency activities through the EES. G.L. 25, § 19(a).<sup>77</sup>

---

<sup>77</sup> General Laws c. 25, § 19(a) requires the Department, in our review of funding sources such as the EES, to consider the effect of any resulting *rate* increases on consumers. Yet the effect on consumers is a function not only of the rate or tariff change approved by the Department but also of the quantity of electricity consumed. The product of the rate and the quantity of electricity consumed provides the *bill* impact to consumers,

The requirement to provide for the acquisition of all available cost-effective energy efficiency resources is not discretionary.<sup>78</sup> Program Administrators must take all reasonable steps to acquire all cost-effective energy efficiency resources and the Department must ensure that they take these steps. The Green Communities Act does, however, provide some discretion regarding the rate at which Program Administrators will acquire these resources, stating that such acquisition should be achieved through a sustained effort. G.L. c. 25, § 22(b). Determining a reasonable pace for a sustained acquisition requires the Program Administrators and the Council (in developing the Three-Year Plans) and the Department (in reviewing the Three-Year Plans) to strike an appropriate balance between several factors, including: (1) identifying the potential level of cost-effective resource currently available;<sup>79</sup> (2) exploring ways in which this level can be increased;<sup>80</sup> (3) assessing the capability of the energy efficiency vendor and contractor industry to support increased program activity; and (4) assessing the capacity of the Program Administrators to administer increases in program activity efficiently and effectively. The Department must take into consideration an additional

---

which is the best measure of the ultimate effect on consumers of a change in rates. Consequently, while the Department notes rate changes in decisions related to changes in distribution company tariffs, we typically estimate changes in average customer bills to more accurately assess the effect of tariff changes on consumers.

<sup>78</sup> The requirement that Program Administrators acquire all available cost-effective energy efficiency resources appears in four separate sections of the Green Communities Act -- G.L. c. 25, §§ 19(a), 21(a), 21(b)(1), 21(b)(2).

<sup>79</sup> See Assessment Resolution.

<sup>80</sup> Pilot programs play an important role in developing innovative cost-effective programs, leading to increased levels of available cost-effective energy efficiency. See G.L. c. 25, § 21(b)(2).

factor: the rate and bill impacts that result from increased program activity. G.L. c. 25, § 19(a).

The Program Administrators have submitted rate and bill impact analyses in a manner consistent with the Bill Impact Model developed by the Bill Impact Working Group and approved by the Department in D.P.U. 08-50-B at 57-60 (Exhs. NG-7; NSTAR Electric-4; WMECo-3; CLC 1, exh. H; Unitil-6). In the sections below, the Department first addresses several concerns related to the Bill Impact Model and then considers the bill impacts resulting from the model.

## 2. Bill Impact Model

The Bill Impact Model provides a useful starting point for understanding the impacts that energy efficiency programs are likely to have on customers' bills. However, the bill impact analyses provided by the Program Administrators for the first time in these proceedings suffer from two very important limitations. First, they do not properly account for bill impacts over the long-term. The analyses include only the costs, savings, and bill impacts associated with program years 2010 through 2012. In D.P.U. 08-50-A at 57, the Department found that the bill impact estimates should account for the impacts over the long-term (e.g., for the average life of efficiency measures) in order to capture the full effect of energy efficiency savings and costs. D.P.U. 08-50-A at 57. Subsequently, in D.P.U. 08-50-B at 18, the Department accepted the Bill Impact Model proposed by the Bill Impact Working Group but noted that it did not account for long-term savings and, therefore, "will understate the benefits of energy efficiency and, thereby, understate the effect that energy efficiency will have on lowering customer bills over the long-term." As noted below, given these limitations, our

review of the bill impacts in the current dockets focuses on the short-term bill impacts but we acknowledge the fact that they understate the long-term benefits of energy efficiency.

Second, the bill impact analyses provided by the Program Administrators do not provide a clear indication of the impact on program participants. One of the challenges of such an analysis is finding ways to indicate the bill impacts associated with programs that achieve deeper savings per participant versus those that serve more participants but with fewer savings per participant. In their initial filings and in response to several Department record requests, the Program Administrators have presented several analytical approaches for how to indicate the bill impacts on program participants. Each of the approaches suffers from some limitation in terms of fully understanding the bill impacts on program participants. Consequently, we do not limit our review of bill impacts to any one of the analytical approaches provided by the Program Administrators. Instead, as noted below, our review of bill impacts focuses on the impacts to participants and to the rate class as a whole.

In order to ensure that future bill impact analyses provide the most meaningful depiction of rate and bill impacts, the Department will reconvene the Bill Impact Working Group to refine the Bill Impact Model to address the two issues discussed above. We encourage all interested stakeholders to actively participate in the working group in order to address any concerns they may have with the Bill Impact Model. We direct the Bill Impact Working Group to submit a revised Bill Impact Model to the Department for review by June 1, 2010.<sup>81</sup>

---

<sup>81</sup> The Department will issue a procedural notice to schedule the next meeting of the Bill Impact Working Group.

3. Bill Impacts

a. Introduction

We focus our evaluation on bill impacts which, as noted above, provide a more meaningful indication of the effects of energy efficiency than rate impacts alone. This is because an analysis of bill impacts captures the effects of energy efficiency program savings as well as their costs. In D.P.U. 08-50-A at 58, we noted that, while energy efficiency programs will typically increase rates, average bills should be lower than they would otherwise be without energy efficiency programs. In addition, customers are typically more concerned about their total bill than their individual rates, because it is the total bill that represents their ultimate cost.

b. Findings

In considering the net impact of energy efficiency investments on consumers, the Department must take into account both the bill impacts and the benefits that the accompanying increase in energy efficiency activity will bring to ratepayers. On a statewide basis, the Three-Year Plans are expected to provide net benefits (over the lifetime of the measures installed) of approximately \$3.2 billion, resulting in almost \$3.00 in benefits for Massachusetts electricity customers for every \$1.00 spent (Exhs. NG-6, Supp. Table IV.D.1 (January 14, 2010); NSTAR Electric-3, Supp. Table IV.D.1 (January 14, 2010); WMECo-2, Supp. Table IV.D.1 (January 15, 2010); Unitil-1, Tab 6 Supp. Table IV.D.1 (January 21, 2010).)<sup>82</sup> We estimate that the total lifetime energy savings associated with the proposed energy efficiency programs will cost roughly 4.6 cents per kWh for electric programs

---

<sup>82</sup> In other words, the projected benefit-cost ratio for the programs is approximately 2.9.



– well below the cost of energy supply resources that would otherwise need to be purchased by consumers. While we do not rely on these points to make our findings here, the Department recognizes the significant additional benefits that flow to Massachusetts residents from energy efficiency program investments. For example, the energy efficiency programs in the Three-Year Plans are expected to reduce statewide carbon dioxide emissions by 9,759,000 short tons and create 3,100 local jobs in Massachusetts over the three-year period (Exh. Common 1, at 12, 22). These programs clearly achieve several of the goals embodied in the Green Communities Act and will create a solid foundation for future energy efficiency activities as the Program Administrators undertake a sustained effort to achieve all cost-effective energy efficiency over time.

Based on our review, and in consideration of the significant benefits provided by energy efficiency resources, the Department concludes that the bill impacts associated with the Three-Year Plan are well within the range of what we consider to be reasonable (Exhs. NG-7; NSTAR Electric-4; WMECo-3 (December 8, 2009); CLC-1, exh. H (December 14, 2009); Unitil-6 (November 18, 2009)).

In addition, if the bill impact analyses were to properly account for the long-term savings of the energy efficiency programs, then the bill impacts would be significantly more modest than those provided by the Program Administrators. Unlike many other activities that cause increases in rates, energy efficiency will result in customer benefits in terms of reduced consumption and reduced costs. These benefits will persist for the operating lives of the energy efficiency measures installed. The energy efficiency measures installed by the electric Program Administrators have an average measure life of 11.8 years (Exh. Common 1, App. D

at 335). Consequently, the Program Administrators' three-year bill impact analyses ignore 8.8 years worth of customer benefits, on average. Accounting for these benefits would indicate that the bill impacts are even more modest than those presented by the Program Administrators in these dockets. As noted above, given the significant deficiency in bill impact analyses, we direct the Program Administrators to resolve this issue through the Bill Impact Working Group.

Furthermore, in D.P.U. 08-50-A at 59-60, we noted that one of the primary concerns regarding energy efficiency program impacts is that they might create an inequity between program participants and non-participants. Here, however, we find that equity concerns between program participants and non-participants are likely to be mitigated by several factors. The proposed energy efficiency programs are designed to be available to all customer classes and all customer types, offering ample opportunities for any customer who wants to reduce his or her bill to participate in an energy efficiency program. Over the course of the Three-Year Plans, a significant number of customers are expected to participate in the proposed energy efficiency programs.<sup>83</sup> Customers that do not participate during these three years may have participated in past years, or may participate in future years. If Program Administrators are successful in their pursuit of all cost-effective energy efficiency, then they should eventually

---

<sup>83</sup> The Program Administrators expect to serve nearly 2.4 million customers across the Commonwealth during the term of the Three-Year Plans (Exhs. NG-6 (December 23, 2009); NSTAR-3 (December 22, 2009); WMECo-2 (December 23, 2009); CLC-1, exh. E (December 14, 2009); Unitil-1, Tab 6 (December 11, 2009)). While this estimate of program participants may include some customers that are counted more than once, as well as some participants that may experience only relatively small levels of energy savings, it indicates the extent to which programs are expected to reach a large number of customers in Massachusetts (Tr. 1, at 65-66; Tr. 3, at 46).

provide some form of efficiency savings to the vast majority of customers – leaving a very small subset of customers that could be considered non-participants. Nevertheless, even those customers who do not participate directly in the energy efficiency programs over time will experience benefits from energy efficiency programs related to long-term reductions in wholesale electricity prices (i.e., from DRIPE) and reduced costs for transmission and distribution maintenance and expansion.

Finally, we note that the Global Warming Solutions Act (“GWSA”) requires the creation of enforceable limits on greenhouse gas emissions in Massachusetts for the years 2020, 2030, 2040 and 2050. G.L. c. 21N § 3. The GWSA also calls for interim greenhouse gas emission targets before 2020. G.L. c. 21N § 6C. Energy efficiency is widely accepted as one of the lowest-cost options for reducing greenhouse gas emissions and, in fact, typically mitigates consumer energy costs while reducing greenhouse gases. Consequently, the Department recognizes that accelerated energy efficiency investment is likely to help minimize costs associated with meeting the greenhouse gas reduction targets contained in the GWSA, thereby mitigating any bill impacts that might result from meeting such targets.

#### 4. Other Issues

The Attorney General requests that the Department expand the Bill Impact Model to accommodate additional bill impact analyses that are designed to capture changes in rates solely due to the implementation of programs contained in the Three-Year Plans (Attorney General Brief at 21-24). The Department will consider whether such bill impact analyses may provide results that are useful in supporting the Department’s review of bill impacts as part of the Bill Impact Working Group.

Further, the Attorney General requests (1) that the bill impact analyses be expanded to show customers the effects that specific energy efficiency measures have on a typical customer's bill, and (2) that Program Administrators be required to file an annual report that documents the manner in which it informed its customers about the impact of its Three-Year Plan (Attorney General Brief at 23 n. 8, 23-26, App. A-G).

The Bill Impact Model is primarily for the Department's use in assessing rate and bill impacts from the Three-Year Plans. The Bill Impact Model should also provide value to the Council in understanding the overall impact of the Three-Year Plans. While customer education is an important component of any successful energy efficiency strategy, the Bill Impact Working Group is not the appropriate forum to develop tools for the purposes of customer education. Instead, the Attorney General may propose to develop such tools within the Council process.

The Attorney General also requests that Program Administrators be required to file with the Department annual bill impact updates (Attorney General Initial Brief at 24-26). Program Administrators are required to file updated rate and bill impacts with each Three-Year Plan, as well as any proposed midterm modifications to the Three-Year Plans. These two filing requirements should be sufficient to provide the Department with the information needed to review and approve energy efficiency program funding requests. Accordingly, we will not require the Program Administrators to file additional annual bill impact updates.

## VIII. PERFORMANCE INCENTIVES<sup>84</sup>

### A. Introduction

The Green Communities Act states that the Three-Year Plans shall include a proposed mechanism that provides performance incentives to the distribution companies based on their success in meeting or exceeding the goals in the plan. G.L. c. 25, § 21(b)(2)(v). The Program Administrators jointly proposed a statewide performance incentive mechanism for each year of their Three-Year Plans.<sup>85</sup>

### B. Statewide Performance Incentive Mechanism

#### 1. Statewide Incentive Pool and Allocation to Program Administrators

The Program Administrators propose statewide incentive pool goals equal to \$17.5 million in 2010, \$22 million in 2011, and \$25.5 million in 2012,<sup>86</sup> based on the assumption that the savings goals included in the Program Administrators' Three-Year Plans would, on a statewide basis, be equal to the goals established by the Council<sup>87</sup> (Exh. Common 27, Supp. at 5 (December 21, 2009)). The actual statewide incentive pool is dependent on the actual savings goals included in the Three-Year Plans; if, on a statewide

---

<sup>84</sup> Consistent with the Department's finding in D.P.U. 08-50-A at 51, the Compact does not receive a performance incentive and, therefore, did not propose one in its Three-Year Plan.

<sup>85</sup> The Program Administrators filed draft performance incentive proposals on October 31, 2009, November 13, 2009, and December 15, 2009. The Program Administrators did not file a final performance incentive proposal until December 21, 2009.

<sup>86</sup> The target incentive pool for each program year is equal to approximately five percent, before taxes, of the statewide budgets for that year (Exh. Common 27, Supp. at 6 (December 21, 2009)).

<sup>87</sup> See Section IV, above, for a discussion of the savings goals established by the Council.

basis, the Program Administrators' savings goals are greater or less than the savings goals established by the Council, the actual incentive pool will be correspondingly adjusted (Exh. Common 27, Supp. at 5-6 (December 21, 2009)). The actual statewide pool is allocated to each Program Administrator based on its contribution to the actual statewide savings goals (Exh. Common 27, Supp. at 6 (December 21, 2009)). The Council endorsed the statewide incentive pool and allocation method in the Savings and Incentive Resolution and in the Three-Year Plan Resolution (Exh. Common 27, Supp. at App. C (December 21, 2009)).

Based on the savings goals included in the Program Administrators' Three-Year Plans, the actual statewide incentive pool was reduced to approximately \$17.3 million in 2010, \$21.6 million in 2011, and \$25.3 million in 2012 (Exh. Common 27, Supp. at 25-27 (December 21, 2009)). Table B: below summarizes the actual statewide pool and the amount allocated to each Program Administrator.

Table B: Actual Incentive Levels				
Program Administrator	2010	2011	2012	2010-2012
National Grid	\$8,387,376	\$10,516,310	\$12,078,138	\$30,981,824
NSTAR Electric	\$7,478,855	\$9,450,399	\$10,905,553	\$27,834,807
WMECo	\$1,345,833	\$1,485,050	\$2,059,173	\$4,890,056
Unitil	\$116,416	\$160,603	\$230,225	\$507,244
Total Statewide	\$17,328,480	\$21,612,362	\$25,273,089	\$64,213,931

The Program Administrators propose a cap on the total performance incentive a Program Administrator can earn for program year 2010, set at 125 percent of the design incentive listed in Table B (Exh. Common 27, Supp. at 5 (December 21, 2009)). The Program Administrators state that they have not yet determined whether a cap on performance incentives will be proposed for program years 2011 and 2012 (Exh. Common 27, Supp. at 5 (December 21, 2009)). In addition, for each year of the Three-Year Plans, each Program

Administrator must achieve at least 75 percent of its design incentive level before it can earn a performance incentive (Exh. Common 27, Supp. at 8 (December 21, 2009)).

2. Proposed Incentive Mechanism

a. Introduction

The proposed performance incentive mechanism has three components: (1) a savings mechanism, which is based on the total benefits a Program Administrator can achieve through implementation of its energy efficiency programs; (2) a value mechanism, which is based on the net benefits a Program Administrator can achieve through implementation of its programs; and (3) performance metrics (Exh. Common 27, Supp. at 8 (December 21, 2009)). The proposed allocation of the statewide incentive pool to these components is shown in Table C: Statewide Allocation to Components, below.

Component	2010	2011	2012
Savings Mechanism	45 %	50 %	52 %
Value Mechanism	35 %	35 %	35 %
Performance Metrics	20 %	15 %	13 %
Total	100 %	100 %	100 %

b. Savings Mechanism

The savings mechanism provides an incentive for Program Administrators to pursue energy efficiency programs that maximize total benefits (Exh. Common 27, Supp. at 11 (December 21, 2009)). The savings mechanism includes a payout rate, to be applied uniformly across all Program Administrators, which determines the incentive amount a Program Administrator can receive for each dollar of benefit achieved from implementation of

<sup>88</sup> Source: Exh. Common 27, Supp. at 9 (December 21, 2009).

its programs. The Program Administrators calculated the savings payout rate for each program year by dividing (1) the percentage of the statewide incentive pool allocated to the savings mechanism by (2) the projected statewide benefits (excluding the Compact's benefits) (Exh. Common 27, Supp. at 12 (December 21, 2009)). The savings mechanism payout rates for each year of the Three-Year Plans are listed in Table D: Statewide Payout Rates below.<sup>89</sup>

Year	Savings Mechanism Payout Rate (\$/dollar value of benefits)	Value Mechanism Payout Rate (\$/dollar value of net benefits)
2010	0.0071578	0.0080598
2011	0.0065996	0.0068961
2012	0.0064788	0.0066685

In order for a Program Administrator to earn an incentive under the savings mechanism, the Program Administrator must achieve a threshold performance of at least 75 percent of the design level of total benefits (Exh. Common 27, Supp. at 11 (December 21, 2009)). The saving mechanism does not have a cap (Tr. 5, at 144).<sup>91</sup>

c. Value Mechanism

The value mechanism provides an incentive for Program Administrators to pursue energy efficiency programs that maximize net benefits (i.e., programs that are most

<sup>89</sup> If the results of an evaluation study lead to changes in the value of projected benefits at the planned level of savings goals, the Program Administrators state that they may seek to modify the savings payout rate (Exh. Common 27, Supp. at 12 (December 21, 2009)).

<sup>90</sup> Source: Exh. Common 27, Supp. at 12, 14-15 (December 21, 2009).

<sup>91</sup> The only restriction that applies to the dollars a Program Administrator can earn through the savings mechanism is a cap on the total incentive amount it can earn, set at 125 percent of the design incentive level for program year 2010 (see Section VIII.B.1, above).



cost-effective) (Exh. Common 27, Supp. at 14 (December 21, 2009)). The value mechanism is similar to the savings mechanism in that it has a statewide payout rate. The payout rate for the value mechanism, however, is based on the lifetime value of the net benefits that result from implementing the Three-Year Plans, rather than total benefits (Exh. Common 27, Supp. at 14 (December 21, 2009)).<sup>92</sup> The Program Administrators calculated the value mechanism payout rate by dividing (1) the percentage of the statewide incentive pool allocated to the value mechanism by (2) the sum of each Program Administrator's dollar values of net benefits (excluding performance incentives from costs and excluding the Compact's net benefits) (Exh. Common 27, Supp. at 14 (December 21, 2009)). Table D: Statewide Payout Rates, above, summarizes the statewide value mechanism payout rates for each year of the Three-Year Plan.

To earn an incentive under the value mechanism, the Program Administrator must achieve at least 75 percent of the design level net benefits (Exh. Common 27, Supp. at 11 (December 21, 2009)). The value mechanism does not have a cap (Tr. 5, at 144).<sup>93</sup>

d. Performance Metrics

The performance metrics provide an incentive for the Program Administrators to undertake specific efforts that are expected to provide benefits beyond those captured in the calculation of total benefits or net benefits (Exh. Common 27, Supp. at 16

---

<sup>92</sup> Because recovery of performance incentives is included in a Program Administrator's budget, it is an input in the calculation of net benefits. Performance incentives are excluded from the calculation of the value mechanism payout rate in order to avoid circular references (Exh. Common 27, Supp. at 14 (December 21, 2009)).

<sup>93</sup> As with the savings mechanism, the only restriction that applies to the dollars a Program Administrator can earn through the value mechanism is a cap on the total incentive amount it can earn, set at 125 percent of the design incentive level for program year 2010 (see Section VIII.B.1, above).

(December 21, 2009)). For 2010, six performance metrics are associated with residential energy efficiency programs; three performance metrics are associated with low-income programs; five performance metrics are associated with C&I programs; and one performance metric is associated with EM&V (Exh. Common 27, Supp. App. B (December 21, 2009)).

Table E: Performance Metrics, below, summarizes each of the performance metrics. Each performance metric has a design level (100 percent of the performance incentive for the metric), an exemplary level (125 percent of the performance incentive for the metric), and most have a threshold level (75 percent of the performance incentive for the metric) (Exh. Common 27, Supp. at App. B (December 21, 2009)).

Table E: Performance Metrics <sup>94</sup>	
Sector/Performance Metric	Description
Residential	
MassSAVE/Weatherization: Deeper Savings	Achieve an increase in the number of customers installing major measures, and an overall increase in savings per customer installing major measures.
MassSAVE: Increase Direct Install Bulb Penetration	Facilitate direct install lighting efforts across Program Administrators, availability of specialty bulbs, and the number of direct install bulbs per customer.
CoolSmart: Increase Percent of Correct Installations	Increase the percentage of "quality installs" and properly sized installs in homes that receive a CoolSmart rebate.
Products: Set Top Boxes	Assess the opportunity for energy savings in the set top box market, and facilitate the advancement of energy efficient set top boxes.
Community Initiatives	Develop, implement, and report on at least three community-based initiatives.
MassSAVE: Explore Inclusion of Energy Professionals	Explore/implement opportunities to increase the number of energy professionals providing vendor services throughout the Commonwealth.

<sup>94</sup> Source: Exh. Common 27, Supp. App. B (December 21, 2009).

Table E: Performance Metrics (cont.)	
Sector/Performance Metric	Description
Low-income	
Low-income Best Practices Working Group	Implement 2009 best practices in coordination with LEAN, and explore the adoption/implementation of new cost-effective measures.
Low-income Auditor Training & Contractor Recruitment/Support	Assist LEAN with funding and logistical support for auditor training, and contractor recruitment and training.
Low-Income 1-4 Retrofit: Deep Energy Retrofit	Advance low-income deep energy retrofit opportunities in the Commonwealth. Formulate best practices, identify opportunities, and try to implement a deep energy retrofit.
Commercial & Industrial	
Small Business Electric and Gas Integration	Identify and add electric and gas measures to the Direct Install Program, and install the new measures through the Direct Install Program.
Targeted Customer Segments	Complete, and increase the number commitments through, technical assessment studies.
Combined Heat & Power	Complete technical assessment studies for CHP.
Retrofit: Depth of Savings	Implement efforts to capture deep savings through both gas and electric measures, including assessments and commitments.
New Construction: Comprehensiveness and Depth of Savings	Achieve deep gas and electric savings in new construction or substantial renovation projects.
Evaluation, Measurement, & Verification	
Omnibus Metric	Conduct studies with contractors in major research areas identified in the EM&V section of the statewide efficiency plan.

C. Program Administrator Performance Incentives

1. Calculation of Incentives by Component

The performance incentive dollars derived from the savings mechanism at the design level for each Program Administrator are calculated as the product of the statewide savings mechanism payout rate and the Program Administrator's expected benefits (Exh. Common 27,

Supp. at 12-13 (December 21, 2009)). Similarly, the performance incentive dollars derived from the value mechanism at the design level for each Program Administrator are calculated as the product of the statewide value mechanism payout rate; and the Program Administrator's expected net benefits (Exh. Common 27, Supp. at 15 (December 21, 2009)). After each Program Administrator's available performance incentive dollars are allocated to the savings and value mechanisms, the remaining performance incentive dollars are allocated to the performance metric category (Tr. 5, 122-123). As shown in Table F: Weighting of Each Component by Program Administrator, below, this leads to a variation across Program Administrators regarding the percent of the design incentive to be earned through each of the three components (Exh. Common 27, Supp. at 10 (December 21, 2009)).

Table F: Weighting of Each Component by Program Administrator <sup>95</sup>			
Program Administrator/ Component	2010	2011	2012
<b>Statewide</b>			
Savings Mechanism	45%	50%	52%
Value Mechanism	35%	35%	35%
Performance Metrics	20%	15%	13%
<b>National Grid</b>			
Savings Mechanism	43%	51%	53%
Value Mechanism	33%	35%	35%
Performance Metrics	24%	14%	12%
<b>NSTAR Electric</b>			
Savings Mechanism	46%	49%	51%
Value Mechanism	37%	35%	35%
Performance Metrics	17%	16%	15%
<b>WMECo</b>			
Savings Mechanism	47%	48%	51%
Value Mechanism	38%	36%	37%
Performance Metrics	15%	15%	12%
<b>Unitil</b>			
Savings Mechanism	62%	66%	66%
Value Mechanism	47%	46%	46%
Performance Metrics	(8%)	(12%)	(12%)

## 2. Unitil

As shown in Table F: Weighting of Each Component by Program Administrator, Unitil's application of the statewide savings and value payout rates leads to a negative incentive amount for the performance metric component. To cure this anomaly, Unitil proposes to apply a value payout rate that differs from the statewide rate and which would keep its percent allocation to the performance metric component at eight percent, consistent with its

<sup>95</sup> Sources: Exhs. DPU-NSTAR 1-32, Att. Supp. (December 21, 2009); DPU-National Grid-1-34 Att. A Supp. (December 21, 2009); DPU-WMECo 1-33 Att. Supp. (December 21, 2009); DPU-Unitil 1-33 Att. Supp. (December 21, 2009).

November 13, 2009 filing (Exh. Common 27 Cover Letter at 1).<sup>96</sup> The value mechanism payout rates after the proposed Unitil adjustment in each year are listed in Table G: Adjusted Value Mechanism Payout Rates, below, and the adjusted weighting of each component for Unitil can be found in Table H: Adjusted Weighting of Each Component by Unitil, below.

Year	National Grid, NSTAR Electric, and WMECo Payout Rate (\$/dollar value of net benefits)	Unitil Payout Rate (\$/dollar value of net benefits)
2010	0.0080598	0.0051548
2011	0.0068961	0.0048049
2012	0.0066685	0.0048843

Component	2010	2011	2012
Savings Mechanism	62 %	66 %	66 %
Value Mechanism	30 %	32 %	34 %
Performance Metrics	8 %	2 %	0.50 %

<sup>96</sup> Unitil did not have negative performance incentive metrics in its November 13, 2009 filing. However, when costs and benefits were updated on December 21, 2009, to reflect corrected discount rates and other modifications made during the course of the evidentiary hearings, Unitil's performance metric component produced a negative incentive. The Program Administrators chose to maintain Unitil's allocation as originally proposed on November 13, 2009, which is based on outdated values (Exh. Common 27, Supp. at 8, 19-20 (December 21, 2009)).

<sup>97</sup> Source: Exh. Common 27, Supp. at 14-15 (December 21, 2009).

<sup>98</sup> Sources: Exh. Common 27, Supp. at 22 (December 21, 2009).

### 3. Modifications as a Result of EM&V Studies

As proposed, the actual incentive earned by each Program Administrator would be based on its performance during each year and the results of EM&V studies, as approved by the Department in each Program Administrator's Annual Report (Exh. Common 27, Supp. at 18 (December 21, 2009)). The Program Administrators propose that the impact of EM&V results on actual performance incentives earned be limited (1) to plus or minus 25 percent of planned savings at the sector level, and (2) plus or minus 15 percent for the Residential Lighting Program (Exh. Common 27, at 16-18).

#### D. Position of the Parties

##### 1. Program Administrators

The Program Administrators argue that the Department should approve the performance incentive proposal as filed because it is consistent with the Department's directives on energy efficiency performance incentives (National Grid Brief at 62-63, citing D.P.U. 08-50-A at 49-50, Guidelines § 3.6.2; NSTAR Electric Reply Brief at 6, citing D.P.U. 08-50-A at 49-50, Guidelines § 3.6.2; Unitil Reply Brief at 6, citing D.P.U. 08-50-A at 49-50, Guidelines § 3.6.2; WMECo Reply Brief at 8, citing D.P.U. 08-50-A at 49-50, Guidelines § 3.6.2). In response to the Attorney General's arguments in opposition to the statewide performance metric structure, the Program Administrators note generally that the statewide metrics were developed collaboratively after extensive negotiations with the Council's consultants (National Grid Reply Brief at 12-13; NSTAR Electric Reply Brief at 6; Unitil Reply Brief at 6; WMECo Reply Brief at 8, 11). The Program Administrators further argue that there are core benefits and objectives to having statewide metrics such as

cross-Program Administrator cooperation and integration and the advancement of key statewide initiatives (National Grid Reply Brief at 12-13; NSTAR Electric Reply Brief at 6; Unitil Reply Brief at 6; WMECo Reply Brief at 11).

As to the Attorney General's concern that the statewide performance metrics create the possibility that a Program Administrator may earn performance incentives based on another Program Administrator's work, the Program Administrators contend that each of the metrics are " 'based on clearly defined goals and activities that can be sufficiently monitored, quantified and verified after the fact' " (National Grid Reply Brief at 11 n.11, quoting D.P.U. 08-50-A at 49; NSTAR Electric Reply Brief at 6-7, quoting D.P.U. 08-50-A at 49; Unitil Reply Brief at 6-7, quoting D.P.U. 08-50-A at 49; WMECo Reply Brief at 8, quoting D.P.U. 08-50-A at 49). The Program Administrators contend that their eligibility to earn a metric is contingent upon filing with the Council and the Department sufficient information documenting their individual role in achieving a particular incentive component (National Grid Reply Brief at 11-12; NSTAR Electric Reply Brief at 8-9; Unitil Reply Brief at 8-9; WMECo Reply Brief at 10). Further, the Program Administrators maintain that they are required to provide quarterly reports to the Council regarding the progress of their Three-Year Plans, which will allow the Council to monitor the contributions of individual Program Administrators toward achieving statewide performance metrics (National Grid Reply Brief at 12, citing G.L. c. 25, § 22; NSTAR Electric Reply Brief at 9, citing G.L. c. 25, § 22; Unitil Reply Brief at 8-9, citing G.L. c. 25, § 22; WMECo Reply Brief at 10, citing G.L. c. 25, § 22). The Program Administrators also note that the Department has ultimate authority to allow or deny a performance incentive and that each Program



Administrator will submit to the Department an Annual Report that will document its individual role in the achievement of all metrics (National Grid Reply Brief at 11-12, citing Tr. 5, at 199, 202; NSTAR Electric Reply Brief at 8-9 n.5, citing Tr. 5, at 184, 199, 202; Unitil Reply Brief at 8 n.5, citing Tr. 5, at 184, 199, 202; WMECo Reply Brief at 8 n.5, citing Tr. 5, at 184, 199, 202). Finally, NSTAR Electric, Unitil, and WMECo argue that the magnitude of the proposed programs requires the direct involvement of all Program Administrators to oversee the programs, company employees, and third-party vendors (NSTAR Electric Reply Brief at 8, citing Exh. AG 4-1; Unitil Reply Brief at 8, citing Exh. AG 4-1; WMECo Reply Brief at 9-10, citing Exh. AG 4-1).

National Grid asserts that documentation of each Program Administrator's individual contribution will be required regardless of whether the metric is residential, low-income, or C&I (National Grid Reply Brief at 11 n.10). National Grid contends that the Attorney General's argument that the Program Administrators will not need to document their individual roles to receive incentives for C&I metrics is misplaced because she fails to recognize that the C&I metrics have company-specific thresholds to attain (National Grid Reply Brief at 11 n.10).

In response to the Attorney General's opposition to the specific EM&V metric, National Grid asserts that this performance metric is not designed to encourage Program Administrators to perform activities that they are already required to perform or reward them for doing so (National Grid Reply Brief at 13). Rather, National Grid claims that this metric provides an incentive to achieve exemplary performance in areas that might otherwise not receive the same focus as achieving savings and value, particularly where the benefits associated with those efforts may not be realized in the short term (National Grid Reply Brief

at 13, citing Exhs. AG 4-2; Common 27 Supp. at 8-10; see also NSTAR Gas Reply Brief at 7, citing Exhs. AG 3-7; Common 29 Supp. at 16; Unitil Reply Brief at 7, citing Exhs. AG 4-7; Common-29 Supp. at 16). National Grid maintains that the fact that EM&V efforts are already in progress in no way negates the value of the metric; rather, these efforts demonstrate the Program Administrators' commitment to EM&V (National Grid Reply Brief at 13).

## 2. Attorney General

Consistent with her vote at the Council, the Attorney General states that she supports the overall pool of performance incentive dollars available for 2010 through 2012, the threshold earning level, and performance incentive cap for 2010 (Attorney General Brief at 17-18). The Attorney General recommends, however, that the Department not approve the performance metrics as filed and instead require the Program Administrators to further refine the metrics (Attorney General Brief at 20). Given that the performance metrics were being developed while evidentiary hearings were taking place and were not finalized until after the close of evidentiary hearings, the Attorney General notes that the Department and intervenors were put in the position of having to analyze incomplete metrics (Attorney General Brief at 18).

The Attorney General argues that the performance metrics do not conform to the Department's directives on performance incentives in D.P.U. 08-50-A or to the principles that the Program Administrators developed to support the performance incentive mechanism (Attorney General Brief at 18-20, citing Exh. Common 1, at 294). Specifically, the Attorney General states that in D.P.U. 08-50-A at 49-50, the Department emphasized the importance of performance incentives that require action on the part of Program Administrators towards

meeting the goals of the Green Communities Act (Attorney General Brief at 18). The Attorney General claims that many of the performance metrics require little or no affirmative action by individual Program Administrators (Attorney General Brief at 18-19, citing Exh. Common 27, at 34-35; Tr. 5, at 193-197). As an example, the Attorney General notes that some metrics do not require energy efficiency installations in order for a Program Administrator to earn an incentive (Attorney General Brief at 19). The Attorney General also contends that, because the performance metrics are statewide, it is possible for a Program Administrator to earn a performance incentive based on the work of another Program Administrator without doing any work itself towards achieving that objective (Attorney General Brief at 19-20). In addition, the Attorney General notes that Program Administrators are not required to document their individual roles in the achievement of the statewide C&I metrics (Attorney General Brief at 19).

With regard to the proposed EM&V metric, the Attorney General argues that this metric rewards the Program Administrators for undertaking activities they have previously committed to undertake in the Statewide Plan (Attorney General Brief at 20). Given that the Program Administrators are already implementing the new EM&V process, the Attorney General contends that it is unnecessary to spend ratepayer money to incent them to carry out their required EM&V obligations (Attorney General Brief at 20, citing Tr. 1, at 161-162). Before ratepayer money is spent on such metrics, the Attorney General argues that further refinement is necessary (Attorney General Brief at 20).

### 3. DOER

DOER recommends that the Department approve the performance incentive mechanism and total pool of incentive dollars (DOER Brief at 12). DOER notes that the Council and Program Administrators negotiated at length the performance incentive mechanism and incentive amount (DOER Brief at 10). Although the Council did not adopt a formal resolution approving the final performance incentive mechanism that was submitted to the Department, DOER argues that the Council's adoption of the incentive levels and savings goals is strong evidence that the Council viewed the incentives as sufficient to incent Program Administrators to devote the effort and resources necessary to attain energy savings goals of the Three-Year Plans (DOER Brief at 10-11). In addition, DOER argues that the performance incentive proposal is in line with the Council-approved goals and incentives, regardless of whether the Council has approved the performance mechanism or the specific formulas used to determine the incentives (DOER Brief at 11, citing Tr. 3, at 527-530). Therefore, in accordance with the Council's adoption of the incentive levels and savings goals, DOER recommends that the Department approve the performance incentive mechanism (DOER Brief at 12).

### 4. ENE

ENE recommends that the Department approve the performance incentive mechanism because it is consistent with the Department's principles set forth in D.P.U. 08-50-A and with the Council's recommendations (D.P.U. 09-116 ENE Brief at 11-12; D.P.U. 09-118 ENE Brief at 11; D.P.U. 09-120 ENE Brief at 11). Specifically, ENE supports the proposed performance incentive structure because it establishes an economic incentive that focuses on the ultimate result of the Three-Year Plans -- savings and benefits -- rather than on dollars

spent (D.P.U. 09-116 ENE Brief at 11, quoting D.P.U. 08-50-A at 49; D.P.U. 09-118 ENE Brief at 11, quoting D.P.U. 08-50-A at 49; D.P.U. 09-120 ENE Brief at 11, quoting D.P.U. 08-50-A at 49).

Further, to ensure that Program Administrators receive performance incentives for activities only where they “ ‘play[] a distinct and clear role’ ” in delivering savings and other defined benefits, ENE recommends that the Department ensure that the Program Administrators collect incentives after goals have been met and verified through EM&V (D.P.U. 09-116 ENE Brief at 11, quoting D.P.U. 08-50-A at 49; D.P.U. 09-118 ENE Brief at 11, quoting D.P.U. 08-50-A at 49; D.P.U. 09-120 ENE Brief at 11, quoting D.P.U. 08-50-A at 49).

E. Analysis and Findings

1. Introduction

The Green Communities Act provides that the Statewide Plan shall include a proposed mechanism that provides incentives to Program Administrators based on their success in meeting or exceeding the goals in the plan. G.L. c. 25, § 21(b)(2). The Program Administrators’ proposed performance incentive mechanism includes the following: (1) a statewide incentive pool; (2) three components (savings, value, and performance metrics) and an allocation of the statewide incentive pool to these components; (3) statewide payout rates for the savings and value components; (4) an allocation of the statewide incentive pool to the individual Program Administrators; and (5) incentive thresholds and caps.

The Council endorsed, in concept, a performance incentive as well as the following aspects of the Program Administrators’ proposed incentive mechanism: (1) the statewide

incentive pool; (2) the division of the incentive mechanism into the savings, value and performance metrics components; (3) the allocation of the statewide pool to each component; (4) the uniform payout rates calculated for the savings and value components; and (5) the allocation of the statewide pool to each Program Administrator based on energy savings.

(Exh. Common 27, Supp. App. C (December 21, 2009)). The final performance incentive mechanism proposal was submitted on December 21, 2009. As this filing was made after the Council's last resolution on performance incentives, the Council did not have an opportunity to review or approve this proposal.

Section 3.6.2 of the Guidelines sets forth the principles by which the Department will review a proposed performance incentive mechanism. Pursuant to the Guidelines, such mechanisms must: (1) be designed to encourage Program Administrators to pursue all available cost-effective energy efficiency; (2) be designed to encourage energy efficiency programs that will best achieve the Commonwealth's energy goals; (3) be based on clearly-defined goals and activities that can be sufficiently monitored, quantified, and verified after the fact; (4) be available only for activities where the Program Administrator plays a distinct and clear role in bringing about the desired outcome; (5) be as consistent as possible across all electric and gas Program Administrators; and (6) avoid any perverse incentives. Guidelines § 3.6.2. Further, the amount of funds available for performance incentives should be kept as low as possible (in consideration of the Department's other principles) in order to minimize the costs to electricity and gas customers. Guidelines § 3.6.3.

2. Proposed Mechanism

a. Statewide Incentive Pool

As noted above, the Department's Guidelines require that the amount of funds available for a performance incentive mechanism be kept as low as possible in order to minimize the cost to electric and gas customers. Guidelines § 3.6.3. In previous years, the Department has approved design performance incentive levels that equaled, on a before-tax basis, approximately 8.5 percent of each Program Administrator's energy efficiency budget. See, e.g., D.P.U. 08-126; D.P.U. 08-129; D.P.U. 08-117; D.P.U. 08-118.<sup>99</sup> The Program Administrators propose a target statewide incentive pool equal to \$17.5 million in 2010, \$22 million in 2011, and \$25.5 million in 2012. These amounts are equal to approximately five percent, before taxes, of the statewide budgets for each year (Exh. Common 27, Supp. at 5-6 (December 21, 2009)).<sup>100</sup>

In light of the fact that (1) the proposed statewide incentive pool, as a percentage of Program Administrators' budgets, is less than the design performance incentive levels that the Department previously has approved, and (2) the Council has endorsed the statewide incentive pool, the Department finds that the Program Administrators have kept the amount of performance incentive funds as low as possible (in consideration of the Department's other

---

<sup>99</sup> On an after-tax basis, the incentives equaled approximately five percent of each Program Administrator's budget.

<sup>100</sup> These amounts are based on the assumption that the savings goals included in the Program Administrators' Three-Year Plans would, on a statewide basis, be equal to the goals established by the Council (Exh. Common 27, Supp. at 5-6 (December 21, 2009)). The actual statewide pool may deviate from the target level if, on a statewide basis, the Program Administrators' savings goals are greater or less than the savings goals established by the Council (Exh. Common 27, Supp. at 5-6 (December 21, 2009)).

principles), consistent with the Green Communities Act and Department Guidelines.

Accordingly, the Department approves the Program Administrators' proposed statewide incentive pool.

b. Components

The proposed performance incentive mechanism contains three components by which Program Administrators can earn incentive payments: (1) a savings mechanism, which provides an incentive for Program Administrators to pursue energy efficiency programs that maximize total benefits; (2) a value mechanism, which provides an incentive for Program Administrators to pursue energy efficiency programs that maximize net benefits; and (3) performance metrics, which provide an incentive for Program Administrators to undertake specific efforts that are expected to provide benefits beyond those captured in the savings and value components (Exh. Common 29 Supp. at 8). The allocation of the statewide pool to each component is summarized in Table C: Statewide Allocation to Components, above.

The Department has previously approved incentive mechanisms that included these same components, with a similar allocation of the total incentive amount to each component. See, e.g., D.P.U. 08-126; D.P.U. 08-129; D.P.U. 08-117; D.P.U. 08-118. In addition, the Council has endorsed the proposed components and the allocation of incentive dollars to each component (Exh. Common 27, Supp. at App. C (December 21, 2009)). For these reasons, the Department finds that the Program Administrators' proposal is reasonable, and consistent with the Green Communities Act and Department precedent. Accordingly, the Department approves the proposed design of the incentive mechanism with a savings, value, and



performance metrics component as well as the allocation of the statewide incentive pool to each component.

c. Savings and Value Payout Rates

The Program Administrators' proposed incentive mechanism includes the application of statewide payout rates (i.e., uniform across all Program Administrators) for the savings and value components. The Program Administrators calculated the savings and value payout rates for each program year by dividing (1) the percentage of the statewide incentive pool allocated to each component by (2) the projected statewide total and net benefits, respectively (Exh. Common 27, Supp. at 12 (December 21, 2009)). The savings and value mechanism payout rates for each year of the Three Year Plans are listed in Table D: Statewide Payout Rates, above.

One of the fundamental underpinnings of the Green Communities Act is the move toward statewide uniformity with regard to the provision of energy efficiency services, as evidenced by the Act's requirement that Program Administrators work together and in collaboration with the Council to develop a Statewide Plan. That is, even through Program Administrators will continue to administer these programs individually, the Green Communities Act mandates that program implementation should occur as consistently and seamlessly as possible across the Commonwealth. G.L. c. 25, § 21(b)(1).

Section 3.6.2 of the Guidelines provides that an incentive mechanism should encourage energy efficiency program designs that will best achieve the energy goals of the Commonwealth, in particular the goals enunciated in the Green Communities Act. The proposed statewide payout rates for the savings and value components will ensure that, across

the Commonwealth, Program Administrators will receive the same incentive payment for each dollar of total and net benefits achieved, thus providing Program Administrators with the same incentive to pursue energy efficiency opportunities that maximize total benefits, versus those that maximize net benefits. As such, we find that the application of statewide payout rates for the savings and value components is consistent with the goal of the Green Communities Act to move toward statewide implementation of energy efficiency. In addition, the Council has endorsed the proposed payout rates for the savings and value components (Exh. Common 27, Supp. at App. C (December 21, 2009)). For these reasons, the Department finds that the Program Administrators' proposed payout rates for the savings and value components are reasonable, and consistent with the Green Communities Act and Department precedent. Accordingly, the Department approves the statewide savings and value payout rates, as proposed.

d. Allocation of Statewide Pool to Program Administrators

Under the Program Administrators' proposal, the statewide incentive pool is allocated to each Program Administrator based on its contribution to the statewide savings goals, as expressed in MWh (Exh. Common 27, Supp. at 6 (December 21, 2009)). This proposed allocation of performance incentives from the statewide pool, which is based on kWh savings, results in two outcomes that raise concern as they contradict the intent of the Green Communities Act to move toward statewide implementation. First, the proposed allocation method results in significant differences across Program Administrators in the percent of design incentive dollars that are allocated to the savings, value and performance metric components (see Table F: Weighting of Each Component by Program Administrator).

Similarly, the proposed method results in an allocation across the three components for some Program Administrators that, on a percentage basis, differs significantly from the statewide percentages endorsed by the Council. Second, the proposed allocation method requires Unitil to adopt a payout rate for the value component that differs from the statewide payout rate, in order to avoid a negative incentive level for its performance metrics component.

The Department notes that the Council endorsed the proposed method of allocating the statewide pool to each Program Administrator.<sup>101</sup> Notwithstanding the concerns discussed above, the Department accepts the proposed method of allocating the statewide pool to each Program Administrator for program year 2010. However, the Department directs the Program Administrators to work with the Council to develop a revised allocation method for 2011 and 2012 that addresses the issues discussed above. In particular, the revised allocation method should, to the extent possible, result in (1) uniform statewide payout rates for the savings and value components, and (2) an allocation of incentive dollars across the three components for each Program Administrator that, on a percentage basis, approximates the statewide allocation

---

<sup>101</sup> Based on the fact that (1) the Council endorsed the allocation method in its December 15, 2009 Resolution on Performance Incentives, and (2) the Program Administrators did not submit their final incentive filing until December 21, 2009, it is not known whether the Council was aware of the results discussed above at the time of its endorsement. The Department observes that, in its Resolution on Performance Incentives, the Council noted a modification for Bay State Gas Company but not a modification for Fitchburg Gas and Electric Light Company d/b/a Unitil (gas division) (Exh. Common 27, Supp. App. C (December 21, 2009)).

across the three components, as endorsed by the Council and approved by the Department above.<sup>102</sup>

e. Unitil

As discussed above, Unitil's application of the statewide savings and value payout rates would result in a negative incentive amount to be collected through the performance metric component. To cure this anomaly, Unitil proposes to apply a value payout rate that differs from the statewide rate.<sup>103</sup> (Exh. Common 27 Cover Letter at 1).

The Department has approved the Program Administrators' proposal to allocate the statewide incentive pool on a per kWh saved basis for program year 2010. Consistent with this approval, the Department also approves Unitil's use of a revised payout rate for its value component during 2010, in order to avoid the anomaly of a negative performance metrics incentive. The Department expects, however, that the revised allocation method developed by the Program Administrators for 2011 and 2012 will resolve this issue for Unitil.

---

<sup>102</sup> For example, the statewide pool could be allocated based on each Program Administrator's contribution to total statewide benefits, instead of statewide kWh savings.

<sup>103</sup> Unitil proposes to apply a value payout rate calculated as the rate that would result in a value incentive amount that, when combined with its saving incentive, would keep its percent allocation to the performance metric component at eight percent, consistent with the performance metric component filing made by Unitil on November 13, 2009 (Exh. Common 27 Cover Letter at 1).

### 3. Performance Metrics<sup>104</sup>

#### a. Introduction

The Program Administrators propose 16 performance metrics. Each of the proposed performance metrics is summarized in Table E: Performance Metrics, above. The Department evaluates each proposed performance metric using the design principles established in D.P.U. 08-50-A at 49-50, as memorialized in Section 3.6 of the Guidelines. The following principles are of particular importance in this analysis:

- Performance incentive mechanisms should be designed in such a way as to encourage energy efficiency program designs that will best achieve the Commonwealth's energy goals, particularly with regard to the goals stated in the Green Communities Act;
- Performance incentives should be based on clearly-defined goals and activities that can be sufficiently monitored, quantified and verified after the fact; and
- Performance incentives should be available only for activities where the distribution company plays a distinct and clear role in bringing about the desired outcome.

#### Guidelines § 3.6.2

Performance metrics help the Program Administrators achieve all cost-effective energy efficiency and, as such, are a valuable component of the performance incentive mechanism. Consistent with previous years, the Department supports the inclusion of performance metrics in the performance incentive mechanism. D.P.U. 08-129, at 38-39; D.P.U. 08-117, at 37-38; D.P.U. 08-118, at 35-37; D.P.U. 08-126, at 35-36; D.P.U. 08-8, at 29-30; D.P.U. 08-10, at 28-29; D.P.U. 08-47, at 26-27; D.P.U. 08-30, at 22-23.

---

<sup>104</sup> Because the proposed Multifamily Retrofit: Deeper Savings metric is a draft metric for 2011, the Department will not address it in this Order.

As discussed below, the Department also supports the principles or concepts that are advanced by many of the proposed performance metrics. Nonetheless, the Department has identified some aspects of the performance metrics that are inconsistent with the design principles outlined in Section 3.6 of the Guidelines.

b. Distinct and Clear Role

As noted above, performance incentives should be available only for activities where the distribution company plays a distinct and clear role in bringing about the desired outcome. Guidelines § 3.6.2. All of the proposed performance metrics, with the exception of the “C&I Retrofit: Depth of Savings” performance metric, establish statewide goals. By design, the statewide goals do not require each Program Administrator to take specific action to achieve the statewide goal in order to receive a performance incentive through that performance metric.

In light of the statewide approach to energy efficiency encouraged by the Green Communities Act, the Department recognizes that it may be appropriate to design performance metrics to promote cooperation across Program Administrators as well as the advancement of statewide initiatives. The Department finds, however, that allowing a Program Administrator to be rewarded for the actions of other Program Administrators – when said Program Administrator plays no part in those actions – is not consistent with the intent of the Green Communities Act or the Department’s Guidelines. Guidelines § 3.6.2.

With the exception of the C&I Retrofit: Depth of Savings metric, because they are presented as statewide metrics, all proposed performance metrics allow for a Program Administrator to potentially earn incentives based solely on the activity of another Program

Administrator, (Exh. Common 27, at 41-43). The Department will not accept performance metrics that allow a Program Administrator to be rewarded solely on the efforts of other Program Administrators. In order for a Program Administrator to receive performance incentive dollars associated with a performance metric, the Program Administrator must have actively participated in the achievement of the goals of the metric.

As such, the Department concludes that all of the proposed performance metrics, except for the “C&I Retrofit: Depth of Savings” performance metric, are in conflict with the “clear and distinct” principle of the Department’s Guidelines. Guidelines § 3.6.2. Such metrics by design do not require each Program Administrator to have a distinct and clear role in determining the outcome of the performance metric.<sup>105</sup>

c. Verifiable Goals

The Department’s Guidelines require that performance incentives be based on clearly-defined goals and activities that can be sufficiently monitored, quantified and verified after the fact. Guidelines § 3.6.2. In order to satisfy this design principle, each goal of a performance metric must be well and clearly documented, easily understood, and objectively verifiable. If the goals of a performance metric are not clearly defined or cannot be verified after the fact, the Department will be unable to determine if the goals were achieved while reviewing the Annual Reports.

---

<sup>105</sup> As part of their Annual Reports, the Program Administrators propose to detail each Program Administrator’s level of individual involvement in achieving the statewide goals (Tr. 5, at 110). Nonetheless, as discussed below, the individual goals for each Program Administrator must be clearly identified in advance, so that performance can be verified.

We find that the following proposed performance metrics violate this principle:

(1) MassSAVE: Increase DI Bulb penetration; (2) Products: Set Top Boxes; (3) Community Initiatives; (4) MassSAVE: Explore inclusion of Energy Professionals; (5) Low-income Best Practices Working Group; (6) Low-income Auditor Training & Contractor Recruitment/Support; (7) Low-income 1-4 Retrofit: Deep Energy Retrofit; (8) Small Business Electric and Gas Integration; and (9) New Construction – Comprehensiveness and depth of savings. These performance metrics include goals that are not well defined and are open to interpretation. For example, the design level for the proposed “Low-income Best Practices Working Group” performance metric has as a goal the following: “[e]xplore and consider adoption of new cost-effective program measures. . .” (Exh. Common 27, Supp. App. B (December 21, 2009)). We find that this goal is neither measurable nor quantifiable and, as such, this proposed performance metric is not objectively verifiable.

d. Baseline Information

The Guidelines require all performance incentive mechanisms to be designed in such a way as to encourage energy efficiency program designs that will best achieve the Commonwealth’s energy goals, particularly with regard to the goals stated in the Green Communities Act. Guidelines § 3.6.2. The intent of performance metrics is to focus the Program Administrators on outcomes or plan development that would not be achieved otherwise (Exh. Common 27, Supp. at 8 (December 21, 2009)). By their nature, performance metrics are not to maintain the status quo or to incent the Program Administrators to do something that would have otherwise happened.



Baseline information identifying the status quo is essential for the Department to determine if the performance metrics are meaningful, require the Program Administrators to take proper action, and appropriately incent each Program Administrator to pursue the stated goal. Without this information, the Department cannot determine if the metric is consistent with our design Guidelines or the Commonwealth's energy goals. The Department will not approve performance metrics that do not provide baseline information indicating how they will advance the Commonwealth's energy efficiency goals.

The following proposed performance metrics either violate the Guidelines or are inadequately described so as to make it impossible to determine compliance with the Guidelines: (1) MassSAVE/Weatherization: Deeper Savings; (2) MassSAVE: Increase DI Bulb penetration; (3) CoolSmart: Increase % of correct installations; and (4) MassSAVE: Explore inclusion of Energy Professionals. For example, the design and exemplary levels for the "MassSAVE: Increase DI bulb penetration" performance metric specify direct install goals for the average number of bulbs installed per customer of 15 and 17, respectively (Exh. Common 27, Supp. App. B (December 21, 2009)). However, the Program Administrators fail to include information specifying the current average number of direct install bulbs installed per customer. While the overall goal of increasing direct installations is consistent with the Department's Guidelines and the Green Communities Act, the Department is unable to determine whether the design of this metric is consistent with the Green Communities Act as it lacks sufficient detail about the status quo.

e. Other Issues

The Attorney General objects to the proposed EM&V “Omnibus Metric” as she contends it merely incents the Program Administrators to uphold their previously-agreed-to obligations with respect to EM&V (Attorney General Brief at 20). The goals of this proposed performance metric are substantially the same as the EM&V design filed as part of the Statewide Plan. For example, one of the two requirements in the exemplary level is to complete the EM&V studies described in the Statewide Plan. As proposed, it is difficult to see how this proposed metric is designed to incent Program Administrators to take action which would not otherwise be taken. Program Administrators should not receive an incentive through a performance metric that requires no additional action or even a performance metric that requires no substantial action.

f. Conclusion

As discussed above, while the Department supports the inclusion of performance metrics as an important part of the performance incentive mechanism, and also supports the goals that are advanced by the proposed performance metrics, we conclude that the majority of the proposed metrics violate the design principles specified in our Guidelines. Guidelines § 3.6. As noted above, performance metrics were not finalized at the time the Three-Year Plan filings were made and the final proposed metrics were not available until after the close of evidentiary hearings.<sup>106</sup> Therefore, we find that the proposed performance metrics were not subject to adequate review by the Department or intervenors. Accordingly, the Department

---

<sup>106</sup> See Section VIII

does not approve the proposed performance metrics as filed.<sup>107</sup> Within 45 days of the date of this Order, the Department directs the Program Administrators to work with the Council and refile revised performance metrics for consideration by the Department. Program Administrators should clearly demonstrate how their revised proposal satisfies all concerns raised herein. Our objective is to establish performance metrics for 2010 that achieve the desired outcomes of the performance metrics filed by the Program Administrators, but are also consistent with our Guidelines and the Green Communities Act.

As noted in Section VI, above, the Department expects that the Program Administrators will aggressively pursue all potential sources of outside funding before proposing to collect costs from ratepayers. As part of the Program Administrators' revised performance metrics proposal, we direct the Program Administrators to include a performance metric that appropriately encourages the aggressive pursuit of outside funding. Such metric should be carefully designed to comply with all design principles specified in our Guidelines.

#### 4. Incentive Caps

After review of the Program Administrators' proposed performance incentive mechanism, the Department concludes that a cap on the overall performance incentive is appropriate. We find that the performance incentive mechanism merits a cap in order to protect ratepayers from the potential of a higher-than-anticipated performance incentive. As

---

<sup>107</sup> The Department strongly supports the language in the proposed "New Construction – Comprehensiveness and depth of savings" performance metric that requires "[i]n order to reach exemplary, you must achieve design" (Exh. Common 27, Supp. App. B (December 21, 2009)). The exemplary level of a metric should not be met without first achieving the threshold or design level. Accordingly, language should be included in all proposed performance incentives that requires the Program Administrator to achieve subordinate levels in order to achieve the exemplary level.

filed, the performance incentive mechanism has a cap of 125 percent for 2010. Although not proposed by the Program Administrators, the Department will require the same 125 percent cap for the performance incentive mechanism for both 2011 and 2012.

In addition, the Department concludes that a cap on the savings and value components of the performance incentive mechanism is also appropriate. Performance metrics inherently have a cap (i.e., the exemplary level) but, as proposed, the savings and value mechanisms do not have a cap (Exh. Common 27, Supp. at 5 (December 21, 2009); Tr. 5, at 144). In order to ensure that each Program Administrator gives appropriate attention to each component, the Department will impose a 125 percent cap on the total performance incentive that can be earned through the savings mechanism, as well as a 125 percent cap on the total that can be earned through the value mechanism.

#### 5. Conclusion

For the reasons discussed above, the Department accepts the: (1) statewide incentive pool; (2) structure of the performance incentive mechanism with three components; (3) savings mechanism proposal; (4) value mechanism proposal; (5) allocation method for 2010; and (6) EM&V contingencies, such as the 25 percent limit on the changes to performance incentives as a result of EM&V (Exh. Common 27 Supp. at 21-22 (December 21, 2009)). The Department does not, however, accept the: (1) proposed allocation method for 2011 and 2012; or (2) the proposed performance metrics. As a result of the statewide pool allocation issues identified herein, the Department directs the Program Administrators to work with the Council to develop a revised allocation method for 2011 and 2012. In addition, the Department directs the Program Administrators to work with the Council and refile new or revised 2010

performance metrics for Department review within 45 days of the date of this Order. Further, the Department will require a 125 percent cap on: (1) overall performance incentives; and (2) each of the components of the performance incentive mechanism.

## IX. EVALUATION MEASUREMENT AND VERIFICATION

### A. Introduction

EM&V is the systematic collection and analysis of information to document the impact of energy efficiency programs in terms of costs and benefits and to improve their effectiveness (Exh. Common 1, at 283). The Statewide Plan presents a new EM&V process that is consistent with the Council's Evaluation Resolution which vests EM&V responsibilities with both the Program Administrators and the Council, with the Council having an active oversight role regarding the form and implementation of the EM&V plans (Exh. Common 1, at 14-15). Further, the Program Administrators, with guidance from the Council and its consultants, have embarked on a collaborative effort to establish, to the maximum extent possible, one uniform statewide EM&V plan ("Statewide Evaluation Plan")<sup>108</sup> (Exh. Common 1, at 275-279).

The Statewide Evaluation Plan includes the following EM&V studies: (1) measurement and verification; (2) impact evaluation; (3) market evaluation; (4) process evaluation; (5) market characterization or assessment; and (6) evaluation of pilots (Exh. Common 1, at 277, 283). Of these studies, one or more, as appropriate, will be used to assess the effectiveness of energy efficiency measures and/or programs within the following market

---

<sup>108</sup> This is a departure from prior practice where Program Administrators conducted their own evaluation plans, often initiating their own EM&V studies independent of one another (Exh. Common 1, at 280-282). In certain circumstances, however, the Program Administrators state that service territory-specific evaluation studies may still be warranted (Exh. Common 1, at 277).

research areas: (1) residential retrofit and low-income; (2) residential retail products; (3) residential new construction; (4) non-residential large retrofit and new construction; (5) non-residential small retrofit; and (6) special and cross-sector studies (Exh. Common 1, at 279-280). The Program Administrators state that this proposed approach is designed to result in consistent and efficient EM&V efforts with a minimum of overlap (Exh. Common 1, at 280).

Within the proposed performance incentive mechanism (see Section VIII, above) the Program Administrators have proposed an EM&V performance metric that has an exemplary goal tied to the completion of a residential non-electric benefit study by September 15, 2010 (Exh. Common 27, at 45). Similarly, the Program Administrators also expect to evaluate non-electric benefits and non-electric non-resource benefits for both the residential and the low-income sectors (Exh. Common 1, at 290-291; Tr. 3, at 461).

The Program Administrators have developed a transition plan to phase out certain existing EM&V strategies while the new initiatives are implemented (Exh. Common 1, at 280-282). For example, Program Administrators must negotiate new contracts for EM&V work, coordinate and prioritize new study schedules, resolve differences in program tracking systems and approaches, and meet their commitments to provide appropriate evaluation of the programs from the 2009 energy efficiency plans (Exh. Common 1, at 280-282).

The Program Administrators state that they will issue requests for proposals in early 2010 for the various evaluation studies in each of the research areas described above (Exh. Common 1, at 284-291). Each Program Administrator plans to allocate four percent of its total program budget for evaluation and market research during each year of its Three-Year

Plan, though actual budget levels could be higher or lower based on research needs

(Exh. Common 1, at 282 n. 21).

B. Positions of the Parties

1. Program Administrators

National Grid, NSTAR Electric, WMECo, Unitil and the Compact contend that the new EM&V provisions, developed in conjunction with the Council, are crucial to the success of their respective Three-Year Plans (National Grid Reply Brief at 4; NSTAR Electric Reply Brief at 5; WMECo Reply Brief a 7; Unitil Reply Brief at 5; Compact Reply Brief at 3-4). The Program Administrators, however, question the added value of the Attorney General's requested annual reports that outline EM&V activities. The Program Administrators argue that EM&V is already subject to stringent reporting requirements such as in Annual Reports to the Department, quarterly reports to the Council, and in any midterm modification filings (National Grid Reply Brief at 6-7; NSTAR Electric Reply Brief at 5; WMECo Reply Brief at 15; Compact Reply Brief at 3-8; Unitil Reply Brief at 6). The Program Administrators contend that these existing reports sufficiently address the Attorney General's concerns regarding the reporting and evaluation of pilot programs (National Grid Reply Brief at 18; NSTAR Electric Reply Brief at 4; WMECo Reply Brief at 16; Unitil Reply Brief at 4; Compact Reply Brief at 4-5). The Program Administrators also oppose the Attorney General's recommendation for third-party independent audits of accounting and financial accuracy, program delivery, and installation issues on the basis that such audits would be duplicative, unnecessary, and would usurp the oversight role of the Department (National Grid Reply Brief

at 10, 18; NSTAR Electric Reply Brief at 4; WMECo Reply Brief at 16; Compact Reply Brief at 18; Unitil Reply Brief at 4).

2. Attorney General

The Attorney General stresses the significance of the Evaluation Resolution regarding the establishment of a transparent and objective EM&V strategy; she maintains that this will provide consistency across the EM&V efforts of all Program Administrators while promoting public confidence in the process (Attorney General Brief at 12-13, citing Exh. Common 1, at 275). Despite her general support, the Attorney General argues that there is an added need for rigorous data collection and the development of unique EM&V strategies for pilot programs, neither of which the Program Administrators have established (Attorney General Brief at 14). The Attorney General requests that the Department require Program Administrators to provide preliminary EM&V findings and all other necessary information to verify participant savings in all targeted programs when they file their 2010 midterm modifications and in each year thereafter (Attorney General Brief at 13). In addition, the Attorney General suggests that the Department require a third-party independent audit of the Program Administrators 2010 plan year, to be conducted in 2011, that focuses on financial accuracy, program delivery, and installation issues (Attorney General Brief at App. A, App. B, App. C, App. D, App. E, point 5).

C. Analysis and Findings

1. Introduction

The Department's Guidelines require each Three-Year Plan to include an evaluation plan describing how the Program Administrator will evaluate the energy efficiency programs



during the course of its plan.<sup>109</sup> Guidelines § 3.5. The Department's Guidelines are intended to create a collaboratively-developed (between the Council and the Program Administrators), statewide EM&V strategy:

The evaluation plan should include at least the following information: (a) how the evaluation plan is consistent with any statewide evaluation plans; (b) how the activities of the evaluation plan will be coordinated with the activities of other Program Administrators; (c) how the electric and gas evaluation efforts have been integrated; and (d) how the Program Administrator incorporated directives or resolutions from the Council in forming its evaluation plans. A Program Administrator should fully document and justify all areas where its evaluation plan deviates from either (a) any statewide evaluation plan, or (b) any directives or resolutions from the Council. If this information is not available at the time of the filing of the Energy Efficiency Plan, the Program Administrator shall state when such information will be available for filing.

#### Guidelines § 3.5.2.

The EM&V strategy proposed in the Statewide Plan is consistent with the Green Communities Act and with the directives contained in the Guidelines (see Exh. Common 1, at 275-292). While this strategy is a good first step, EM&V is an ongoing process and its importance to the success of the Three-Year Plans and to the implementation of energy efficiency in Massachusetts cannot be overstated. As ratepayers in Massachusetts are asked to support rapidly expanding budgets for energy efficiency, a sound EM&V strategy is essential to guide future investment decisions and to retain the public's confidence that programs are cost-effective. The reliability of program benefits, as supported by sound EM&V efforts, is of growing importance because of the Act's mandate to provide for the acquisition of all available energy efficiency and demand reduction resources that are cost-effective. G.L. c. 25,

---

<sup>109</sup> The Green Communities Act states that energy efficiency plans may include programs for planning and evaluation. G.L. c. 25, § 21(b)(2).

§ 21(b)(1). Consistent and reliable EM&V studies will ensure that program investments continue to provide net benefits to ratepayers.<sup>110</sup>

2. Non-Electric Benefits

The Attorney General urges the Department to require that the Program Administrators support non-electric non-resource benefits included in their cost-effectiveness analyses with actual claimed results, recent studies, actual field validations, and independent third-party audits (Attorney General Brief at 30). The Program Administrators indicated that they intend to evaluate non-electric benefits, including non-resource benefits, during the course of the Three-Year Plans (Tr. 3, at 461; Exh. Common 1, at 291).

In Section V.C, above, the Department expresses concern regarding the reliability of non-electric non-resource benefits,<sup>111</sup> noting that the Program Administrators themselves accept that at least some of the categories of non-resource benefits claimed in their Three-Year Plans are lacking in recent and thoroughly-reviewed support documentation (Tr. 3, at 422, 461). As such, the Department directs the Program Administrators to undertake studies during 2010 that evaluate non-electric non-resource benefits, including all underlying assumptions, to ensure that updated and more reliable values will be developed in time for inclusion in the

---

<sup>110</sup> The coordination of evaluation studies is explained in Exhibit Common 1, at 278.

<sup>111</sup> Non-electric non-resource benefits, on a statewide basis, account for approximately five percent of total benefits during the three-year period, 2010-2012. For low-income programs, these benefits account for approximately 41 percent of total benefits statewide for the three-year period (Exhs. NG-6, Supp. Table IV.D.3.iii (December 23, 2009); NSTAR-3, Supp. Table IV.D.3.iii (December 22, 2009); WMECo-2, Supp. Table IV.D.3.iii (December 23, 2009); Unitil-1, Tab 6, Supp. Table IV.D.3.iii (December 23, 2009); CLC-1, exh. E Supp. Table IV.D.3.iii (December 14, 2009)).

cost-effectiveness analyses in their subsequent three-year plans. The Department further directs the Program Administrators to report their findings on this matter in their next Annual Reports.

The Department notes that the Program Administrators have indicated that EM&V studies of the MassSave program are one area of focus of the 2010 EM&V strategy, and that the evaluation of benefits associated with this program will likely change in future years (Exh. Common 1, at 284; Tr. 4 (National Grid), at 785-786). As discussed in Section V.C, above, non-electric resource benefits comprise approximately 77 percent of total benefits for the MassSAVE program, the large majority of which are derived from avoided oil costs.<sup>112</sup> As such, the Department expects that Program Administrators will pay particular attention to the estimates of heating oil savings from the MassSave Program (e.g., from insulation and programmable thermostats). The Department directs the Program Administrators to develop updated and fully documented assumptions regarding the savings from heating oil efficiency measures, as well as other non-electric resource benefits in time for inclusion in their 2010 Annual Reports. The Department further directs the Program Administrators to report on their progress on this matter in their next Annual Reports.

### 3. Reporting Requirements and Third-Party Audits

Historically, Program Administrators have submitted the results of their EM&V studies as part of their Annual Reports to the Department. The Attorney General recommends that, in

---

<sup>112</sup> NG-6, Supp. Table IV.D.3.iii (December 23, 2009); NSTAR-3, Supp. Table IV.D.3.iii (December 22, 2009); WMECo-2, Supp. Table IV.D.3.iii (December 23, 2009); Unitil-1, Tab 6, Supp. Table IV.D.3.iii (December 23, 2009); CLC-1, exh. E Supp. Table IV.D.3.iii (December 14, 2009)).

light of the importance of EM&V activities, the Department require that Program Administrators submit annual reports on EM&V activities and pilot programs (Attorney General Brief at 13).

The Department finds that the existing reporting requirements provide an adequate framework for review of EM&V activities; we will not establish additional reporting requirements beyond the Annual Reports at this time. Instead, as discussed in D.P.U. 08-50-B at 3, we will convene a working group to address issues associated with the Program Administrators' Annual Reports, including establishing a template for the reports and a procedure for their review.<sup>113</sup> D.P.U. 08-50-B at 3. While the specific contents of Annual Reports will be a matter of discussion for the working group, the Department expects that, at a minimum, they will include: (1) an overview of specific EM&V studies completed to date; (2) key findings that have materially impacted the initial projected benefits of energy efficiency programs; (3) a description of other evaluation studies that are in progress or will soon be initiated; (4) complete evaluation reports for the existing pilots; and (5) Program Administrator-specific findings and updates.

The Attorney General recommends that the Department require third-party audits of the 2010 financial and accounting practices, program delivery, and installation issues (Attorney General Brief at App. A, App. B, App. C, App. D, App. E, point 5). The Department accepts the validity of the Attorney General's concerns and we recognize that third-party audits have the ability to generate useful information for all stakeholders, in addition to providing

---

<sup>113</sup> The Annual reports Working Group will address the timing, and content, as well as any procedural issues related to the Annual Reports, the midterm modifications, and the EES filings.

another level of transparency and integrity in the review of energy efficiency programs. This request for an audit is similar to a request made by the Attorney General and approved by the Department during the investigation of National Grid's most recent five-year gas energy efficiency plan. See National Grid, D.P.U. 07-104, at 22 (2008). The results of the audit required in D.P.U. 07-104 have not yet been published, although they are likely to provide valuable information that may inform decisions regarding the conduct of future audits and evaluation studies. Also, the new strategy for EM&V, along with the new oversight role of this area by the Council and its consultants will provide a framework for completion of evaluation studies related to process, program impact, and measurement and verification, each of which may allay the Attorney General's concerns.<sup>114</sup> The Program Administrators, the Council and its consultants should be afforded the opportunity to demonstrate the robustness of the proposed EM&V framework with regard to evaluation of process, program delivery, and installation issues.

Consequently, at this time, the Department will not require the additional third-party audits requested by the Attorney General. However, if it proves necessary, the Department may in the future direct the Program Administrators to conduct audits of their programs and operations once we have had a chance to observe how successfully the new EM&V framework is operating. As always, the Department encourages the Attorney General and all interested parties to articulate specific areas of concern so that any audits required in the future are implemented efficiently and effectively.

---

<sup>114</sup> The various types of evaluation functions are outlined in Exhibit Common 1, at 283.

X. MIDTERM MODIFICATIONS

A. Introduction

In D.P.U. 08-50-A, the Department sought to balance the need for Program Administrators to make improvements to energy efficiency programs during the course of the Three-Year Plans, with the need for adequate regulatory review and stakeholder input of significant changes to the Program Administrators' planning assumptions and parameters. D.P.U. 08-50-A at 40-41. The Department concluded that the following changes to an energy efficiency plan are significant and will require Department approval: (1) the addition of a new program or the termination of an existing program; (2) a change in a program budget of greater than 20 percent; (3) a program modification that leads to an adjustment in savings goals that is greater than 20 percent; or (4) a program modification that leads to a change in performance incentives of greater than 20 percent. D.P.U. 08-50-A at 64. A Program Administrator that seeks to make such a modification is required to first submit its proposal to the Council for review and then submit it to the Department at the time it makes its Annual Report filing. D.P.U. 08-50-A at 41. Any such request must be accompanied with (1) a justification for why the modification is appropriate, and (2) a description of how the modification was reviewed and decided upon by the Council. D.P.U. 08-50-A at 64.

The Program Administrators request a clarification or adjustment to the Department's requirement that modifications to the Three-Year Plan be presented to the Department as part of the Annual Report filings (Exh. Common 1, at 310-311, citing D.P.U. 08-50-A at 64). The Program Administrators ask that they be allowed to submit proposed modifications to the Department through a separate proposal, filed separate from the Annual Reports, if the

proposed modifications are time sensitive or necessary to address potential lost opportunities (Exh. Common 1, at 311). The Program Administrators also recommend that the Council and the Department each adopt a 45-day deadline for a decision on any such proposal (Exh. Common 1, at 311).

The Program Administrators state that there are a number of shifting or unknown factors that could trigger a request for midterm modification (Exh. Common 1, at 307). First, with respect to performance incentives, the Program Administrators state that there are several issues that have yet to be determined or are subject to change, including: (1) performance metrics for 2011 and 2012; (2) a cap on incentives for 2011 and 2012; (3) the payout rates for the savings and value mechanisms may change depending on the outcome of EM&V studies or updates to the Avoided Cost Study; and (4) potential annual updates due to savings and costs adjustments (Exh. Common 27, Supp. at 5, 12, 18 (December 21, 2009)). Second, the Program Administrators note that there could be a request for a midterm modification in the event that goals for outside funding are not achieved by the dates identified in the Statewide Plan (Exh. Common 1, at 66-67). The Program Administrators anticipate that they will seek Department approval to modify savings goals and budgets for 2010 and 2011 in order to reflect the actual outside funding levels obtained (Tr. 2, at 257; Exh. Common 1, at 66-67; 312).

B. Positions of the Parties

1. Program Administrators

The Program Administrators argue that it is appropriate for the Department to modify the standard for midterm modifications set forth in D.P.U. 08-50-A and D.P.U. 08-50-B (Exh. Common 1, at 309-311; National Grid Brief at 72-73; NSTAR Electric Brief at 73-74;

WMECo Brief at 73-74; Compact Brief at 62-63; Unitil Brief at 71-72). Although the Program Administrators believe that the standard for midterm modifications set forth in D.P.U. 08-50-A at 64 is appropriate, the Program Administrators anticipate that there could be exceptional circumstances necessitating the filing of a separate proposal separate from the Annual Reports.<sup>115</sup> Accordingly, the Program Administrators request that the Department allow a limited exception or clarification to the standard for midterm modifications that will allow proposed program modifications outside of the Annual Reports for modifications that are time sensitive or will address potential lost opportunities.<sup>116</sup> The Program Administrators state that such proposals would be made infrequently and only to address situations in which delay would entail excessive costs or lost opportunities (National Grid Brief at 72-73, citing Exh. AG-1-17, Tr. 2, at 264-265; NSTAR Electric Brief at 73-74, citing Exh. AG-1-17, Tr. 2, at 264-265; WMECo Brief at 73-74, citing Exh. AG-1-17, Tr. 2, at 264-265; Compact Brief at 62-63, citing Exh. AG-1-17, Tr. 2, at 264-265; Unitil Brief at 71-72, citing Exh. AG-1-17, Tr. 2, at 264-265).

The Program Administrators ask that the Department reject the Attorney General's recommendation that they be required to file annual updates to track the progress of the Three-Year Plans (National Grid Reply Brief at 4, 6-9; NSTAR Electric Reply Brief at 4;

---

<sup>115</sup> National Grid Brief at 72-73, citing Exh. AG-1-17; NSTAR Electric Brief at 73-74, citing Exh. AG-1-17; WMECo Brief at 73-74, citing Exh. AG-1-17; Compact Brief at 62-63, citing Exh. AG-1-17; Unitil Brief at 71-72, citing Exh. AG-1-17.

<sup>116</sup> National Grid Brief at 72-73, citing Exh. Common 1, at 310-311; NSTAR Electric Brief at 73-74, citing Exh. Common 1, at 310-311; WMECo Brief at 73-74, citing Exh. Common 1, at 310-311; Compact Brief at 62-63, citing Exh. Common 1, at 310-311; Unitil Brief at 71-72, citing Exh. Common 1, at 310-311.



WMECo Reply Brief at 14-15; Compact Reply Brief at 4-5; Unitil Reply Brief at 3-4). The Program Administrators argue that the periodic reporting and process for midterm modifications as proposed in the Three-Year Plans are consistent with the Green Communities Act and D.P.U. 08-50, and that the additional reports and processes that the Attorney General recommends would be duplicative and inconsistent with established regulatory directives (National Grid Reply Brief at 6-9; NSTAR Electric Reply Brief at 4; WMECo Reply Brief at 14-15; Compact Reply Brief at 4-5; Unitil Reply Brief at 3-4).

The Program Administrators note that the Green Communities Act requires the Program Administrators to provide quarterly reports to the Council on the implementation of the Three-Year Plans, which the Council will use to create an annual report to be filed with the Department and the Legislature.<sup>117</sup> The Program Administrators argue that when developing the standards for midterm modifications, the Department considered the requirements of the Green Communities Act and the Council's role in overseeing the Three-Year Plans.<sup>118</sup> Further, the Program Administrators contend that the Department made clear in D.P.U. 08-50-B that only significant modifications would require Department approval (National Grid Reply Brief at 7, citing D.P.U. 08-50-B, Guidelines § 3.8.1-3.8.3; NSTAR Electric Reply Brief at 4, citing D.P.U. 08-50-B, Guidelines § 3.8.1-3.8.3; WMECo Reply

---

<sup>117</sup> National Grid Reply Brief at 7, citing G.L. c. 25, § 22(d); NSTAR Electric Reply Brief at 5, citing G.L. c. 25, § 22(d); WMECo Reply Brief at 15, citing G.L. c. 25, § 22(d); Compact Reply Brief at 6, citing G.L. c. 25, § 22(d); Unitil Reply Brief at 5, citing G.L. c. 25, § 22(d).

<sup>118</sup> National Grid Reply Brief at 7, citing D.P.U. 08-50-A at 64; NSTAR Electric Reply Brief at 4-5, citing D.P.U. 08-50-A at 64; WMECo Reply Brief at 15, citing D.P.U. 08-50-A at 64; Compact Reply Brief at 8, citing D.P.U. 08-50-A at 64; Unitil Reply Brief at 5, citing D.P.U. 08-50-A at 64.

Brief at 15, citing D.P.U. 08-50-B, Guidelines § 3.8.1-3.8.3; Compact Reply Brief at 7, citing D.P.U. 08-50-B, Guidelines § 3.8.1-3.8.3; Unitil Reply Brief at 4, citing D.P.U. 08-50-B, Guidelines § 3.8.1-3.8.3). Given the Council's intensive oversight and participation as well as the framework for midterm modifications established in D.P.U. 08-50-A, the Program Administrators argue that they should not be required to submit additional reports or updates for Department review and approval unless a significant modification or matter related to an annual report is at issue (National Grid Reply Brief at 6-9; NSTAR Electric Reply Brief at 4-6; WMECo Reply Brief at 14-15; Compact Reply Brief at 4-9; Unitil Reply Brief at 3-4). The Program Administrators accept that certain circumstances will require the review of new information by the Department but they argue that all periodic reports or program adjustments should not require Department oversight (National Grid Reply Brief at 6-9; NSTAR Electric Reply Brief at 4; WMECo Reply Brief at 14-15; Compact Reply Brief at 4-9; Unitil Reply Brief at 3-4).

The Program Administrators also argue that mandated annual comprehensive reporting on pilot programs, education and marketing, and EM&V as suggested by the Attorney General would place an undue administrative burden on the Program Administrators and the Department and would be inconsistent with the Act's mandate that Program Administrators minimize administrative costs to the fullest extent practicable (National Grid Reply Brief at 8-9, citing G.L. c. 25, § 19(a); NSTAR Electric Reply Brief at 4-6; WMECo Reply Brief at 15-16, citing G.L. c. 25, § 19(a); Compact Reply Brief at 8-10; Unitil Reply Brief at 5-6. Specifically with regard to the Attorney General's argument that EM&V studies should be submitted as part of a yearly update filed prior to the Annual Reports, National Grid argues

that preliminary EM&V information could be incomplete or inaccurate (National Grid Reply Brief at 9). Because preliminary EM&V reports often undergo significant revisions before being finalized, these Program Administrators argue that they should not be required to submit EM&V information to the Council and Department until such information is complete (National Grid Reply Brief at 9).

## 2. Attorney General

Due to the rapid increase in energy efficiency budgets and corresponding increase in ratepayer funding of energy efficiency associated with the Three-Year Plans, the Attorney General recommends that the Department require the Program Administrators to file annual updates to track the progress of the Three-Year Plans (Attorney General Brief at 31-32). The Attorney General states that the information provided through these updates should include but not be limited to: (1) bill impacts; (2) information on implementation of community initiatives; (3) pilot programs; (4) outreach, education, and marketing; and (5) EM&V analyses (Attorney General Brief at 32). The Attorney General argues that this information will help the Department and stakeholders identify issues as they arise, instead of waiting to address any implementation problems through the Annual Reports when it may be too late to benefit from the information (Attorney General Brief at 32). Given that the Program Administrators are statutorily required to provide the Council with quarterly reports on their progress in implementing the Three-Year Plans, the Attorney General contends that filing an annual update with the Department would not be unduly burdensome (Attorney General Brief at 32-33, citing G.L. c. 25, § 22(d)). Finally, the Attorney General notes that, although annual updates presently are necessary in order to ensure that forecasted savings and benefits are accruing to

ratepayers, such updates may be unnecessary in the future as the process of developing the Three-Year Plans matures (Attorney General Brief at 33).

### 3. DOER

DOER did not take a specific position on: (1) the Attorney General's recommendation that the Program Administrators file annual updates to track the progress of the Three-Year Plans; or (2) the Program Administrators' proposal to make midterm modifications outside of Annual Reports. However, DOER notes its support of the Department's directives on midterm modifications as set forth in D.P.U. 08-50-B and recommends that the Department give deference to the findings of the Council when assessing a Program Administrator's request to modify its Three-Year Plan (DOER Brief at 12). DOER argues that proposed midterm modifications are likely to be rare and could occur under the following circumstances: (1) a failure to obtain adequate outside funding; (2) a significant increase in bill impacts; (3) a shortfall in attaining savings goals; and (4) where EM&V studies reveal that critical data assumptions are not being met (DOER Brief at 12-14).

### C. Analysis and Findings

In D.P.U. 08-50-A at 63-64, the Department determined that Program Administrators must obtain Department approval of significant modifications to the Three-Year Plans after first presenting such proposals to the Council for review.<sup>119</sup> The Department stated that any such request should be included as part of a Program Administrator's Annual Report to the Department and must be accompanied by (1) a justification for why the modification is

---

<sup>119</sup> The procedure for midterm modifications, including a definition of what constitutes a significant modification, is contained in the Guidelines at §§ 3.8, 3.8.2, 3.8.4.

appropriate, and (2) a description of how the modification was reviewed and decided upon by the Council. D.P.U. 08-50-A at 64. The Program Administrators request that the Department revise or clarify the Guidelines to permit proposed modifications to the Three-Year Plans that are time sensitive or necessary to address potential lost opportunities to be presented to the Department separate from their Annual Report filings (Exh. Common 1, at 309-311, citing D.P.U. 08-50-A at 64).

In D.P.U. 08-50-A at 41, the Department found that requiring midterm modifications to be presented at the same time as the Annual Report filings allowed Program Administrators a certain level of flexibility to propose program planning improvements, while also ensuring that the Department is able to review such proposals in an efficient manner. For the majority of proposed midterm modifications, we continue to expect that such filings will be made at the time the Annual Report filings are made.<sup>120</sup> Nevertheless, we agree with the Program Administrators that there may be certain midterm modification proposals that are time sensitive or necessary to address lost opportunities, such that it will be necessary to file the request at a time other than when the Annual Report filings are made. A Program Administrator may seek an exception to any provision of the Guidelines with the burden on the Program Administrator to demonstrate the compelling nature of such request. Guidelines § 5. Accordingly, if a

---

<sup>120</sup> The Department's Order in D.P.U. 08-50-A at 41 indicated that proposed midterm modifications should be included as part of the Program Administrator's Annual Report and the Department would consider such proposals as part of our review of the Annual Reports. See also Guidelines § 3.8.1). Midterm modification proposals should still be submitted at the same time as the Annual Reports; however, such proposals should be filed separately from the Annual Reports. This will provide the Department with an opportunity to review the nature of the proposed modification in order to determine whether to review the proposal with the Annual Report or in a separate docket.

Program Administrator seeks to submit proposed modifications to the Department through a separate proposal, filed separate from the Annual Reports, it should invoke Section 5 for an exception to the filing requirements of Guidelines. Consistent with Section 5 of the Guidelines, the Program Administrator should demonstrate the compelling nature of the request (e.g., demonstrate that the proposed modifications are time sensitive or necessary to address potential lost opportunities).

The Program Administrators ask that the Council and the Department each adopt a 45-day deadline for review of midterm modifications (Exh. Common 1, at 311). The Department declines to adopt this recommendation and, instead, will determine actual procedural schedules on a case-by-case basis where we will have sufficient information on the scope of the proposal and will be better able to assess the appropriate process and time required for review.<sup>121</sup>

As noted in Sections VII (Performance Incentives), IX (EM&V), and V.C (Budget - pilot programs), the individual Three-Year Plans are incomplete for 2011 and 2012 with respect to (1) performance incentives, (2) EM&V studies, and (3) pilot program budgets. Each of these areas will require supplemental filings from the Program Administrators. Further, the Program Administrators state that they anticipate that they will seek Department approval to modify savings goals and budgets for 2010 and 2011 in order to reflect the actual outside funding levels obtained (Exh. Common 1, at 66-67). Consistent with the procedure for filing midterm modifications, such updates should be made at the time the Annual Report filings are

---

<sup>121</sup> As part of the Annual Report Working Group, the Department will consider whether to adopt model procedural schedules for review of the Annual Reports and/or proposed midterm modifications. See, e.g., Guidelines § 3.7.3.

made. In D.P.U. 08-50-A at 64-65, the Department announced that the Annual Report Working Group will be formed to address the content and timing of Annual Reports. We will also address the timing of the filing of midterm modifications and other plan updates as part of the Annual Report Working Group.

Apart from the Annual Reports, the Attorney General argues that the Program Administrators should be required to file various annual updates on: (1) bill impacts, (2) implementation of community initiatives, (3) pilot programs, (4) outreach and education, and (5) EM&V activities (Attorney General Brief at 32). The Program Administrators, however, object to filing such information as they argue it would be unduly burdensome (National Grid Reply Brief at 8-9; NSTAR Electric Reply Brief at 4; WMECo Reply Brief at 15-16; Compact Reply Brief at 4-9; Unitil Reply Brief at 3-4).

The Program Administrators are currently required to submit additional information on their Three-Year Plans through Annual Reports and when they propose significant midterm modifications. D.P.U. 08-50-B at 39-40, citing D.P.U. 08-50, at 37-39; Guidelines § 3.8. As part of the Annual Report Working Group, the Department will address what information should be updated annually during the course of the Three-Year Plans and when such updates should be made (i.e., as a part of or separate from the Annual Reports). At a minimum, we note that Program Administrators are required to provide quarterly reports on implementation of their Three-Year Plans to the Council. G.L. c. 25, § 22(d).<sup>122</sup> The Department directs the

---

<sup>122</sup> The Green Communities Act requires that Program Administrators provide quarterly reports to the Council on the implementation of their respective Three-Year Plans. G.L. c. 25, § 22(d). The quarterly reports must include a description of each Program Administrator's progress in implementing its Three-Year Plan, a summary of the

Program Administrators to provide a copy of these quarterly reports to the Department for informational purposes.

XI. OTHER ISSUES

A. Community Labor United

1. Introduction

CLU is a non-profit organization that advocates for equitable energy efficiency programs; it has intervened in the following proceedings: National Grid, WMECo, and NSTAR Electric (D.P.U. 09-116, Petition to Intervene at 1-2; D.P.U. 09-118, Petition to Intervene at 1-2; D.P.U. 09-120, Petition to Intervene at 1-2). CLU's stated goals are to provide low- and moderate-income families and communities of color with access to energy efficiency funds and pathways to employment in the energy efficiency industry (D.P.U. 09-116, Petition to Intervene at 1-2; D.P.U. 09-118, Petition to Intervene at 1-2; D.P.U. 09-120 Petition to Intervene at 1-2). CLU contends that the Three-Year Plans filed by National Grid, NSTAR Electric, and WMECo, are inconsistent with the Council's approval of the Program Administrators' respective Three-Year Plans, because they fail to specify in sufficient detail how they will capture all energy efficiency and demand reduction resources with regard to: (1) on-bill financing; (2) community-driven outreach; (3) jobs; (4) equity metrics; and (5) representation on working groups (CLU Brief at 3-4, citing G.L. c. 25, § 21(b)(1)). Each argument is addressed below.

---

savings secured to date, and other information as determined by the Council. G.L. c. 25, § 22(d). Additionally, the Council must provide an annual report to the Department on the implementation of the Statewide Plan, which includes descriptions of the programs, expenditures, cost-effectiveness, and savings and other benefits during the previous year. G.L. c. 25, § 22(d).



2. On-Bill Financing

a. Positions of the Parties

i. CLU

CLU argues that the Three-Year Plans must minimize bill impacts on low- to moderate-income customers and customers of color (CLU Brief at 4). CLU argues that an on-bill financing option is necessary to provide moderate income households with equal access to deep energy retrofits (CLU Brief at 4-6, 17-18).

As support, CLU relies on the Act's requirement that the Statewide Plan provide for the "acquisition, with the lowest reasonable customer contribution, of all of the cost-effective energy efficiency and demand reduction resources that are available from municipalities and other governmental bodies" (CLU Brief at 4, citing G.L. c. 25, § 21(b)(1)). CLU also relies on the Council's pronouncement that "minimizing bill impacts on customers is an essential consideration and that it is important to minimize upfront financing barriers to implementation for non-low-income customers" (CLU Brief at 4, citing Three-Year Plan Resolution at 2). Accordingly, CLU states that the Program Administrators, in their respective Three-Year Plans, must detail the steps each is taking to implement on-bill financing options (CLU Brief at 6).

ii. Program Administrators and LEAN

As a threshold matter, National Grid and NSTAR Electric note that the Statewide Plan, unanimously supported by the Council, was explicitly incorporated in their Three-Year Plans and forms their core (National Grid Reply Brief at 19, citing, Exh NG-1; NSTAR Electric Reply Brief at 14). These Program Administrators dismiss any suggestion that their

Three-Year Plans fundamentally differ from the Council-supported Statewide Plan (National Grid Reply Brief at 19, citing, Exh NG-1; NSTAR Electric Reply Brief at 14). Similarly, WMECo asserts that its Three-Year Plan is the Statewide Plan with company-specific attachments (WMECo Reply Brief at 17, citing, Exh. WMECo-6, at 4).

Regarding on-bill financing, National Grid, NSTAR Electric and WMECo respond that the development of on-bill financing options is currently the focus of the Council's on-bill finance working group of which the Program Administrators are members and in which CLU may participate, if it so chooses (National Grid Reply Brief at 20-21, citing Exh. AG-1-7; NSTAR Electric Reply Brief at 15, citing Exh. AG-1-7; WMECo Reply Brief at 18, citing Exh. AG-1-7). Further, the Program Administrators note that, in preparation for the implementation of on-bill financing options, the Statewide Plan allocates 40 percent of anticipated outside funding to provide capital to customers, which would be repaid through on-bill or other mechanisms (National Grid Reply Brief at 21, citing, Exhs. Common-1 at 62, AG-1-6; NSTAR Electric Reply Brief at 15-16 citing, Exhs. Common-1 at 62, AG-1-6; WMECo Reply Brief at 18-19, citing, Exhs. AG-1-6; WMECo-1, at 66).

LEAN, responding to CLU's argument that a lack of on-bill financing will provide moderate income households with unequal access to deep energy retrofits, observes that deep energy retrofits are scheduled to be tested in several pilot efforts to determine whether they can be installed cost-effectively (LEAN Reply Brief at 2). Accordingly, LEAN argues that CLU's argument is premature because cost-effectiveness issues should be resolved before any particular financing mechanism is considered (LEAN Reply Brief at 2).

b. Analysis and Findings

Each Program Administrator's Three-Year Plan incorporates by reference and is, therefore, consistent with the Statewide Plan.<sup>123</sup> The Council, in its Three-Year Resolution recognizes the importance of on-bill financing as a means to minimize bill impacts and provides guidance on how to attain this goal:

We recognize that minimizing bill impacts on customers is an essential consideration and that it is important to minimize upfront financing barriers to implementation to non-low-income customers. For these reasons, it will be crucial for [Program Administrators], the [Council], and all stakeholders to work together to identify and bring in outside funding for the programs; to continue to work together to ensure that savings are being delivered efficiently and cost-effectively; as well as to keep a close eye on program costs.

(Three-Year Plan Resolution at 2). While this provision expresses the Council's goal regarding on-bill financing, it does not condition the Council's approval of the Statewide Plan or, by extension, the current Three-Year Plans on requiring an on-bill financing component at this time.

The Council's on-bill finance working group is currently pursuing the development of on-bill financing options (National Grid Reply Brief at 20-21, citing Exh. AG-1-7; NSTAR Electric Reply Brief at 15, citing Exh. AG-1-7; WMECo Reply Brief at 18, citing Exh. AG-1-7).<sup>124</sup> Participation in this working group by Council members, the Program Administrators and interested stakeholders, including CLU, is consistent with the goals

---

<sup>123</sup> The Council, including CLU's nominee, unanimously approved the Statewide Plan.

<sup>124</sup> We note that we construe the Council's Three-Year Plan Resolution to provide a forum not only for the examination of possible on-bill financing but also exploration of other possible options that would lead to the stated goal of minimizing upfront financial barriers.

expressed in the Council's Three-Year Plan Resolution and is the appropriate forum to address CLU's concerns.

3. Community-Driven Outreach

a. Positions of the Parties

i. CLU

CLU maintains that the Three-Year Plans lack sufficient detail on how Program Administrators will implement community-driven outreach (CLU Brief at 7). CLU bases its assertion that such detail is required on (1) the Council's recognition in the Three-Year Plan Resolution that community mobilization has the potential to promote higher energy savings, and (2) the Statewide Plan's suggestion of a "neighborhood approach to energy efficiency services" (CLU Brief at 7-8, citing Three-Year Plan Resolution at 1, Exh. Common 1, at 269-270). From this, CLU observes that the Three-Year Resolution and Statewide Plan make community mobilization a priority (CLU Brief at 7-8). Accordingly, CLU argues that the Department should require each Program Administrator, working with community organizations, to carry out at least one pilot program in 2010 and then to adopt the best practices from these pilots for community mobilization that will serve traditionally underserved communities and individuals equitably (CLU Brief at 7-8).

ii. Program Administrators and LEAN

National Grid, NSTAR Electric and WMECo assert that their respective Three-Year Plans sufficiently address community-driven outreach efforts (National Grid Reply Brief at 22; NSTAR Electric Reply Brief at 17; WMECo Reply Brief at 19). In support they state that they

have, consistent with the Council's March 24, 2009 resolution,<sup>125</sup> taken note of the importance of education, marketing, and community outreach, to achieving the significant goals of the Statewide Plan (National Grid Reply Brief at 22; NSTAR Electric Reply Brief at 17; WMECo Reply Brief at 19). National Grid and NSTAR Electric also note that they have formed partnerships with the Green Justice Coalition<sup>126</sup> to explore the potential for a community-outreach pilot program (National Grid Reply Brief at 22; NSTAR Electric Reply Brief at 17). LEAN argues that community-outreach programs have been scheduled only for a limited number of pilot programs because past experience has shown that this is not a proven strategy (LEAN Reply Brief at 2).

b. Analysis and Findings

CLU argues that the Department should require the Program Administrators to carry out a pilot community mobilization program in 2010 and incorporate the best practices from the pilot in future community mobilization programs to reach underserved communities and individuals (CLU Brief at 8). In relevant part, the Statewide Plan provides that the Program Administrators will

explore a new pilot collaborative with community-based organizations that have long-standing relationships with homeowners, tenants and small businesses in economically marginalized communities, to assess the feasibility of a community mobilization outreach model that implements a neighborhood approach to energy efficiency services

---

<sup>125</sup> In this resolution, the Council set forth its priorities to guide the development, implementation and evaluation of Program Administrators' energy efficiency plans.

<sup>126</sup> The Green Justice Coalition was both convened and is staffed by CLU; it consists of 42 community groups, labor unions, and environmental and faith-based organizations working to promote a sustainable, equitable, and clean energy economy in Massachusetts (CLU Petition to Intervene at 2).

(Exh. Common 1, at 270). Further, in its Three-Year Plan Resolution, the Council states that it anticipates that, if “executed faithfully, the 2010-2012 efficiency plans will. . . address long-standing challenges like. . . community mobilization” (Three-Year Plan Resolution at 1). Similar to the on-bill financing provisions above, these provisions express worthy goals. They are not, however, components of the Council-approved Statewide Plan with which the Three-Year Plans are required to comply. Nonetheless, National Grid and NSTAR Electric represent that they have initiated a partnership with the Green Justice Coalition to explore a community-outreach pilot program, as advocated by CLU (National Grid Reply Brief at 22; NSTAR Electric Reply Brief at 17). The goals of the Green Justice Coalition partnership and of the Council resolution are consistent. CLU’s participation in this partnership is the appropriate forum to address its concerns.

4. Job Creation

a. Positions of the Parties

i. CLU

CLU argues that the proposed Three-Year Plans fail to provide sufficient detail on how Program Administrators will ensure that economic development, job creation or job retention benefits will accrue to low- and moderate-income neighborhoods (CLU Brief at 8, 13). In support of its argument that such detail is required, CLU asserts that G.L. c. 25, § 21(b)(2) and the Council’s Three-Year Plan Resolution emphasize that the Three-Year Plans must include an analysis of their economic and workforce development impacts and describe issues regarding job creation and job tracking (CLU Brief at 8-9, 10-11). Additionally, CLU asserts that the Statewide Plan “emphasize[s] the importance of developing ‘a diverse and well-trained

workforce capable' of providing energy efficiency program services while maintaining high quality and safety standards" (CLU Brief at 9, citing Exh. Common 1, at 14, 119). Thus, CLU proposes that the Department require Program Administrators to develop and implement a mechanism to ensure that workers from underrepresented communities are hired and given access to an equitable share of the economic benefits that will flow from expanded public and ratepayer energy efficiency investments (CLU Brief at 12).

ii. Program Administrators and LEAN

National Grid, NSTAR Electric and WMECo acknowledge the importance of the Act's directive that energy efficiency plans include estimates of any job retention, job growth or economic development benefits associated with the plans (National Grid Reply Brief at 23, citing G.L. c. 25, § 21(b)(2)(viii); NSTAR Electric Reply Brief at 18-19, citing G.L. c. 25, § 21(b)(2)(viii); WMECo Reply Brief at 20, citing G.L. c. 25, § 21(b)(2)(viii)). To further this policy goal, the Program Administrators state that they encourage and expect their respective vendors and other entities performing energy efficiency services related to their programs to be responsible for and ensure that their staffs receive the necessary training and skills required to perform at exemplary levels in terms of industry knowledge, building science knowledge, quality workmanship and performance (National Grid Reply Brief at 23, citing Exh. Common-1 at 119; NSTAR Electric Reply Brief at 18, citing Exh. CLU-1-16; WMECo Reply Brief at 20, citing Exh. CLU-1-16). Moreover, National Grid, NSTAR Electric and WMECo state that they: (1) will cooperate with DOER and other state agencies interested in job training and workforce development over the three-year term of the plans; (2) will partner with training programs to ensure that the experience of trainers and curriculum allow for the

continued quality delivery of existing programs; and (3) support and allocate funds for workforce growth and training initiatives in their Three-Year Plans (National Grid Reply Brief at 23-24, citing Exh. Common-1 at 119, 266-269; NSTAR Electric Reply Brief at 19, citing Exh. CLU-1-16; WMECo Reply Brief at 21, citing Exh. CLU-1-16). Accordingly, the Program Administrators assert that their respective Three-Year Plans account for the development of an adequate and well-trained workforce to meet growing customer needs resulting from the aggressive savings goals (National Grid Reply Brief at 24; NSTAR Electric Reply Brief at 19; WMECo Reply Brief at 21).

LEAN takes issue with CLU's suggestion that the Department take on a supervisory role over wages and labor practices of energy efficiency workers (LEAN Reply Brief at 3). LEAN asserts that the supervision of energy efficiency workers' wages and oversight of fair labor practices resides with existing authorities, including the United States Department of Labor (LEAN Reply Brief at 3). LEAN argues that it is not the Department's role, or even the role of the Program Administrators, to mandate a wage for energy efficiency workers (LEAN Reply Brief at 3).

b. Analysis and Findings

The Green Communities Act requires that Program Administrators submit plans to the Council that include "any estimated economic benefits for such [energy efficiency] projects, including job retention, job growth or economic development. . . ." G.L. c. 25, § 21(b)(2)(viii). The Statewide Plan states that "the program designs reflect comprehensive strategies that provide for. . . an expanded, diverse, and well-trained workforce. . . ." (Exh. Common 1, at 14, 119). In approving the Statewide Plan, the Council stated that it



expects that Program Administrators “will continue to strive. . . to support training and career development to create a sufficient, skilled, and more diversified workforce” (Three-Year Resolution at 2). To this end, the Program Administrators represent that they will cooperate and partner with DOER and other state agencies to further job training and workforce development over the three-year term and have allocated funds for these initiatives in their respective Three-Year Plans (National Grid Reply Brief at 23-24, citing Exh. Common-1 at 119, 266-269; NSTAR Electric Reply Brief at 19, citing Exh. CLU-1-16; WMECo Reply Brief at 21, citing Exh. CLU-1-16).

The Statewide Plan reflects comprehensive strategies for an expanded, diverse, and well-trained workforce and the Council, as stated in its Three-Year Plan Resolution, fully expects the Program Administrators to pursue these initiatives. The record reflects a commitment on behalf of the Program Administrators to partner with the appropriate entities in pursuit of this goal. The Department finds that the issues relating to job creation have been appropriately addressed by: (1) the Council’s approval of the Statewide Plan and its incorporation in the Three-Year Plans and (2) the commitment of the Program Administrators to pursue job training and workforce development programs that include the communities and individuals identified by CLU.

5. Equity Metrics

a. Positions of the Parties

i. CLU

CLU maintains that the Three-Year Plans fail to sufficiently detail how the Program Administrators will track equity impacts associated with the public and ratepayer investments

in energy efficiency programs (CLU Brief at 13). In support of its position that such tracking is required, CLU argues that because the Green Communities Act requires the Department to “ensure that program costs are collected, allocated and distributed in a cost-effective, fair and equitable manner,” the proposed Three-Year Plans must, therefore, track the collection, allocation, and distribution of program costs and determine whether this has been done in a fair and equitable manner (CLU Brief at 13, citing G.L. c. 25, § 21(d)(2)). To accomplish this end, CLU asserts that the Three-Year Plans need to include a means to verify the fairness and equity of the plans as implemented and proposes that Program Administrators be required to collect information about race, ethnicity, foreign language, and age of participants and workers, education of participants, and gender of workers (CLU Brief at 13-16, 20-21).

ii. Program Administrators and LEAN

National Grid, NSTAR Electric and WMECo take exception to CLU’s criticism that the Three-Year Plans fail to provide sufficient detail regarding their tracking of equity impacts (National Grid Reply Brief at 24; NSTAR Electric Reply Brief at 19-20; WMECo Reply Brief at 21). National Grid asserts that the Statewide Plan satisfies the mandates of the Green Communities Act and the Department’s Orders in D.P.U. 08-50-A and D.P.U. 08-50-B and address equity issues to the extent appropriate under the Act (National Grid Reply Brief at 24). National Grid and NSTAR Electric argue that the equity issues raised by CLU (i.e., specifics related to wages, tracking customer racial and ethnic data, and new equity metrics) are not required by the Green Communities Act and, in some instances, may impinge on the jurisdictions of other agencies such as the United States Department of Labor (National Grid Reply Brief at 24; NSTAR Electric Reply Brief at 19). National Grid, NSTAR Electric and

WMECo state that CLU should pursue its equity tracking interests through its continued participation in the Council process and, in particular, through the Council's sub-committee on equity issues (National Grid Reply Brief at 24; NSTAR Electric Reply Brief at 19; WMECo Reply Brief at 22).

LEAN contends that CLU's proposal to track demographic data (i.e., race, ethnicity, language age, gender and education) is overbroad, assumes discrimination for which there is no evidence, and could slow down the delivery of efficiency services to the communities about which CLU is concerned (LEAN Reply Brief at 3-4). LEAN also notes that the Council's sub-committee on equity issue is the appropriate forum to discuss such issues and explore questions of data collection (LEAN Reply Brief at 4).

b. Analysis and Findings

The Green Communities Act provides that the Department "shall approve a fully reconciling funding mechanism . . . to ensure that program costs are collected, allocated and distributed in a cost-effective, fair and equitable manner." G.L. c. 25, § 21(d)(2). Further, the Green Communities Act specifies that, once the program costs have been collected, these program funds are to be allocated to the low-income, residential and commercial and industrial classes in proportion to each class' contribution to the funds.<sup>127</sup> G.L. c. 25, § 19(c); see also Guidelines §§ 3.2.1.2 - 3.2.1.6.1. Finally, Program Administrators are required to propose and the Department is required to review a fully reconciling funding mechanism that collects and allocates costs as specified above. G.L. c. 25, §§ 21(b)(2), 21(d)(2).

---

<sup>127</sup> The Green Communities Act further provides that at least ten percent of the electric funds be allocated to the low-income sector and 20 percent of gas funds be allocated to the low-income sector. G.L. c. 25, § 19(c).

We find nothing in the Green Communities Act that would obligate Program Administrators to gather data and report on the income, race, ethnicity, age, foreign language, geography, or residency of the households and communities that are receiving energy efficiency benefits and the individuals, including their wages, employed as a result of the energy efficiency programs (see CLF Brief at 15-16). We note that the Council has convened a sub-committee on equity issues and encourage CLU to pursue its equity tracking issues in that forum.

6. Representation on Working Groups

a. Positions of the Parties

i. CLU

CLU asserts that the Three-Year Plans fail to provide sufficient detail on how representatives of low- to moderate-income customers, communities of color, and workers will be represented at the Program Administrators' "best practices" and other working groups (CLU Brief at 16). To remedy this, CLU suggests that the Department require that the following stakeholder groups be included in working groups going forward: (1) residents of low- and moderate-income communities; (2) residents of environmental justice communities; (3) tenants; (4) workers and unions; (5) and environmental justice advocates (CLU Brief at 16-17).

ii. Program Administrators and LEAN

National Grid, NSTAR Electric, WMECo, and LEAN state that the "best practices" working group is not a Program Administrator-sponsored group, rather the group was established by LEAN and continues to be managed by LEAN (National Grid Reply Brief at 25;

NSTAR Electric Reply Brief at 21; WMECo Reply Brief at 23; LEAN Reply Brief at 4). The Program Administrators and LEAN note that this working group includes representatives from the various Program Administrators, LEAN, the Weatherization Assistance Program (“WAP”), the Department of Housing and Community Development, and the various Community Action Program agencies (National Grid Reply Brief at 25; NSTAR Electric Reply Brief at 21; WMECo Reply Brief at 23; LEAN Reply Brief at 4). Further, The Program Administrators and LEAN observe that CLU testified that it admires LEAN’s work in serving WAP-eligible customers (National Grid Reply Brief at 25-26, citing Tr. 2, at 281; NSTAR Electric Reply Brief at 21, citing Tr. 2, at 281; WMECo Reply Brief at 23, citing Tr. 2, at 281; LEAN Reply Brief at 4, citing Tr. 2, at 281). Because of CLU’s expressed approval of the efforts taken to serve WAP-eligible customers, the Program Administrators and LEAN state that it is not clear what legitimate concerns CLU has with the best practices working group (National Grid Reply Brief at 25; NSTAR Electric Reply Brief at 21; WMECo Reply Brief at 23; LEAN Reply Brief at 4).

b. Analysis and Findings

The working groups convened by the Department under the auspices of D.P.U. 08-50 have been widely noticed and open to the participation of all interested persons. The dedication of the participants has been welcome and appreciated. We encourage the active participation of all stakeholders, including CLU, in the future working groups to be convened by the Department (i.e., Bill Impact Working Group, Annual Report Working Group). We encourage the Council and all stakeholders to work with CLU and permit its participation in any working group for which it has expressed an interest. We recognize that the value of the

recommendations produced by any working group depend, in part, on the diverse nature of its membership.

B. Cape Light Compact

1. Municipal Aggregator

Pursuant to the Green Communities Act, all Program Administrators must file their three-year Plans with the Department for approval, modification and approval, or rejection. G.L. c. 25, § 21(d)(2). In addition, the Department is required to review energy efficiency plans submitted by a municipality or group of municipalities, such as the Compact, and certify that the energy efficiency plans are consistent with any state energy conservation goals developed pursuant to G.L. c. 25A or G.L. c. 164. G.L. c. 164. § 134(b).

Section 134(b) establishes a two-pronged standard of review for the evaluation of energy efficiency plans proposed by municipalities. First, the statute established the threshold that a municipality be “establishing” a load aggregation program pursuant to G.L. c. 164, § 134(b) before the municipality may submit its plan for Department review. Second, G.L. c. 164, § 134(b) states that if the Department concludes that a municipality is establishing an aggregation program, the Department shall evaluate the municipality’s plan to determine whether it is consistent with state energy conservation goals. G.L. c. 164. § 134(b)

a. Establishing a Load Aggregation Program

The Compact asserts that the Department need not reexamine the “establishing” issue because the Department has already made that determination in Cape Light Compact, D.T.E. 00-47, at 11 (2000) and Cape Light Compact, D.T.E. 03-39, at 6 (2003) (Compact Brief at 75). In particular, the Compact asserts that its load aggregation program is now fully

operational as approved by the Department in Cape Light Compact, D.T.E 04-32 (2004) (Compact Brief at 75). In addition, the Compact asserts that it serves approximately 160,000 customers through its opt-out competitive power supply option and that all 200,000 customers in its service territory are eligible for the Compact's energy efficiency services (Compact Brief at 75-76). Accordingly, the Compact argues that because it has a fully operational load aggregation program, which was previously approved by the Department, it meets the "establishing" threshold for certification of its Three-Year Plan (Compact Brief at 75). No other parties commented on this matter.

As stated, above, G.L. c. 164, § 134(b) requires that a municipality or group of municipalities be "establishing" a load aggregation program pursuant to G.L. c. 164, § 134(a) before the municipality or municipalities may submit an energy plan for Department review. The Department has previously found that the Compact was "establishing" a load aggregation program and that it is now fully operational. D.T.E. 00-47 at 11 (2000); D.T.E 03-39, at 6. Accordingly, we need not reexamine this issue here and find that the Compact has met the "establishing" threshold for certification of its Three-Year Plan.

b. Consistency with State Energy Efficiency Goals

The Compact asserts that its Three-Year Plan is consistent with state energy efficiency goals (Compact Brief at 77). In particular, the Compact asserts that the Department has determined that its prior energy efficiency plans have met state energy efficiency goals and that the Three-Year Plan builds upon previously approved programs and measures (Compact Brief at 76-77). No other parties commented on the matter.

As stated above, G.L. c. 164, § 134(b) states that if the Department concludes that a municipality is establishing an aggregation program, the Department shall evaluate the municipality's plan to determine whether it is consistent with state energy conservation goals. In its review of the Compact's previous energy efficiency plans, the Department considered state energy efficiency goals developed by the DOER pursuant to G.L. c. 25A. Guidelines Supporting the Massachusetts Division of Energy Resources' Energy Efficiency Oversight and Coordination (July 2004) ("DOER Guidelines"). With the passage of the Green Communities Act, however, the framework for developing, reviewing, and implementing energy efficiency plans has undergone a fundamental change. Pursuant to G.L. c. 25, §§ 21(b)-(c), all Program Administrators, including municipal aggregators, are required to work with the Council to formulate their individual Three-Year Plans. In this collaborative approach, the Council is tasked with approving energy efficiency plans that (1) maximize net economic benefits through energy efficiency and load management resources and (2) achieve energy, capacity, climate, and environmental goals through a sustained and integrated statewide energy efficiency effort. G.L. c. 25, § 22(b).

The Department has found that the Compact's previous energy efficiency plans are consistent with the Commonwealth's energy efficiency goals. D.T.E. 00-47C at 20; D.T.E. 03-39, at 8, 15, D.T.E. 05-34, D.P.U. 07-47. The Compact's three-year plan builds upon its previously approved plans and incorporates the comprehensive three-year Statewide Plan, which was found by the Council to be consistent with the goals and requirements of the Green Communities Act (Three-Year Plan Resolution at 1). Based on our review of the evidence provided by the Compact, in accordance with our findings in this Order, we find that



the Compact's Three-Year Plan meets the energy goals of the Green Communities Act. Further, because the Green Communities Act fundamentally changes the Department's review of energy efficiency plans, it effectively supplants our previous reliance on the energy goals established in the DOER Guidelines. By virtue of the Department's findings herein that the Compact's Three-Year Plan meets the goals and requirements of the Green Communities Act, we find that it is also consistent with state energy conservation goals as required by G.L. c. 164, § 134(b).

## 2. Municipal Incentives

The Compact offers a 100 percent customer incentive to municipalities that install energy efficiency measures (Tr. 4 (Compact) at 672-680). The Attorney General questions whether this practice is consistent with the Green Communities Act's requirement that program funds be allocated to customer classes in proportion to their contribution to those funds (Attorney General Initial Brief, App. D at pt. 7, citing G.L. c. 25, § 19(c)). The Compact argues that its 100 percent incentive to municipalities is consistent with the Green Communities Act because (1) there is an equitable allocation of funds across the Compact's program sectors; (2) energy efficiency measures installed in municipal buildings will benefit all residents in the Compact's service territory; and (3) the municipal incentive structure was collaboratively developed by all Program Administrators and approved by the Council (Compact Reply Brief at 20-21).

Pursuant to the Green Communities Act energy efficiency program funds must be allocated to customer classes, in proportion to their contributions to those funds. G.L. c. 25, § 19(c). The Compact's practice of offering a 100 percent customer incentive to municipalities

is not restricted by the Act's fund allocation requirement, which refers to customer classes as a whole. The Compact's programs include an equitable allocation of funds across its program sectors. Consequently, we do not require the Compact to make any changes to its energy efficiency program targeted at municipalities.

## XII. SUMMARY AND CONCLUSION

The Green Communities Act requires the Department to ensure that each Program Administrator's Three-Year Plan provides for the acquisition of all available energy efficiency and demand reduction resources that are cost-effective. G.L. c. 25, § 21. In this Order, the Department finds that each Program Administrator's Three-Year Plan includes goals regarding the acquisition of cost-effective energy efficiency resources that are reasonable and consistent with the statewide goals established by the Council. The Department further finds that each Program Administrator (1) calculated the cost-effectiveness of the programs included in its Three-Year Plan consistent with the Guidelines, and (2) demonstrated the cost-effectiveness of its programs<sup>128</sup> (see Section V.C.2). Based on the above, and in consideration of the other findings contained in this Order, the Department finds that each Program Administrator's Three-Year Plan appropriately provides for the acquisition of all energy efficiency and demand reduction resources that are cost-effective or less expensive than supply.

The Green Communities Act also requires the Department to make specific findings regarding the budget included in each Program Administrator's Three-Year Plan. G.L. c. 25,

---

<sup>128</sup> To ensure the reliability of the benefits included in the cost-effectiveness analyses, the Department directed the Program Administrators to develop improved values for (1) non-electric benefits, and (2) transmission and distribution avoided cost factors (see Sections V.C.2.c, V.C.2.d.ii).

§§ 19(a), 19(c), 21(b)(2). Consistent with these requirements, in this Order the Department finds that each Program Administrator's Three-Year Plan: (1) is designed to minimize administrative costs to the fullest extent practicable,<sup>129</sup> (2) includes a budget for low-income programs that exceeds the statutory minimum of ten percent; (3) uses competitive procurement to the fullest extent practicable; and (4) includes a sufficient budget for pilot programs for 2010 to carry out energy efficiency research and development activities (see Sections V.C.1.b through V.C.1.e).<sup>130</sup> Accordingly, subject to the findings and conditions contained herein, the Department approves the proposed budgets for the Three-Year Plans.

The Green Communities Act identifies the sources through which energy efficiency programs can be funded and requires each Program Administrator to allocate dollars from these funding sources to customer classes in proportion to their contribution to those funds. G.L. c. 25, §§ 19(a), (c). In this Order, the Department finds that the manner in which each Program Administrator calculated its FCM and RGGI revenues and allocated those revenues to its customer classes, is consistent with the Green Communities Act and the Guidelines (see Sections VI.H.2 and VI.H.3). With regard to outside funding, the Department concludes that the Program Administrators took sufficient action regarding the identification of outside funding for program year 2010. The Department further finds that the manner in which the

---

<sup>129</sup> To enable the Department to more effectively compare administrative costs on a statewide level, the Department directed the Program Administrators to develop consistent statewide program planning and administrative cost categories (see Section V.C.1.b).

<sup>130</sup> The Department will address proposed pilot program budgets for 2011 and 2012 after we receive additional information (see Section V.C.1.e).

Compact calculated its 2010 outside revenue and allocated that revenue to its customer classes is consistent with the Green Communities Act and the Guidelines<sup>131</sup> (see Section VI.H.4).<sup>132</sup>

The Green Communities Act allows the Program Administrators to collect additional funding from ratepayers to implement energy efficiency programs. In approving an EES, the Department must consider (1) the effect of any resulting rate increases on consumers, (2) the availability of other private or public funds, and (3) whether past programs have lowered the cost of electricity to consumers. G.L. c. 25, § 19(a). The Department finds that: (1) the bill impacts associated with each Three-Year Plan are well within the range of what we consider to be reasonable, particularly when taking into consideration the significant benefits provided by energy efficiency resources; (2) each Program Administrator took sufficient action regarding the identification of outside funding during 2010; and (3) customer costs have decreased as a result of past energy efficiency programs (see Sections VI.H.5, VII). Accordingly, the Department finds that each Program Administrator may recover additional funds necessary to implement the proposed budgets approved herein through an EES (see Section VI.H.5).<sup>133</sup> For 2011 and 2012, we direct the Program Administrators to submit documentation regarding their efforts to secure outside funding for those years, in compliance with the Green Communities Act (see Section VI.H.4).

---

<sup>131</sup> The Compact is the only Program Administrator to secure new sources of outside funding for 2010 (see Section VI.H.4).

<sup>132</sup> The Department directed the Program Administrators to develop a performance metric designed to incent them to aggressively pursue all potential sources of outside funding (see Section VIII.E.3).

<sup>133</sup> The Department will investigate each Program Administrator's 2010 EES reconciling factor and tariff in separate proceedings (see Section VI.H.5).

Finally, the Green Communities Act provides that Program Administrators may earn a performance incentive based on their success in meeting or exceeding specified goals.

G.L. c. 25, § 21(b)(2). In this Order, the Department approves most aspects of the performance incentive mechanism proposed by the Program Administrators. However, the Department directs the Program Administrators to work further with the Council to develop (1) a revised method of allocating the statewide incentive pool to each Program Administrator for program years 2011 and 2012,<sup>134</sup> and (2) revised performance metrics that are consistent with the principles included in the Guidelines (see Section VIII). In addition, the Department directs the Program Administrators to include a cap of 125 percent on (1) the total incentive each Program Administrator can receive during 2011 and 2012, and (2) the incentive each Program Administrator can receive through each component of the mechanism for the years 2010 through 2012 (see Section VIII.E.4).

Based on the above findings and subject to the conditions contained herein, we conclude that each Program Administrator's Three-Year Plan is consistent with the Green Communities Act, the Guidelines, and Department precedent. Accordingly, subject to the modifications and directives included herein, the Department approves each Program Administrator's Three-Year Plan.

---

<sup>134</sup> The Department accepted the proposed allocation method for 2010 (see Section VIII.E.2.d).

XIII. ORDER

Accordingly, after due notice, hearing, and consideration, it is:

ORDERED: That the energy efficiency plan for calendar years 2010 through 2012 filed by Massachusetts Electric Company and Nantucket Electric Company, d/b/a National Grid is APPROVED, subject to the exceptions and conditions contained herein, and it is

FURTHER ORDERED: That the energy efficiency plan for calendar years 2010 through 2012 filed by Fitchburg Gas and Electric Light Company, d/b/a Unitil is APPROVED, subject to the exceptions and conditions contained herein, and it is

FURTHER ORDERED: That the energy efficiency plan for calendar years 2010 through 2012 filed by Western Massachusetts Electric Company is APPROVED, subject to the exceptions and conditions contained herein, and it is

FURTHER ORDERED: That the energy efficiency plan for calendar years 2010 through 2012 filed by the Towns of Aquinnah, Barnstable, Bourne, Brewster, Chatham, Chilmark, Dennis, Eastham, Edgartown, Falmouth, Harwich, Mashpee, Oak Bluffs, Orleans, Provincetown, Sandwich, Tisbury, Truro, Wellfleet, West Tisbury, Yarmouth, and the Counties of Barnstable and Dukes, acting together as the Cape Light Compact is APPROVED, subject to the exceptions and conditions contained herein, and it is

FURTHER ORDERED: That the energy efficiency plan for calendar years 2010 through 2012 filed by NSTAR Electric Company is APPROVED, subject to the exceptions and conditions contained herein, and it is



XIV. APPENDIX<sup>135</sup>A. Table 1: Statewide Energy Savings Goals<sup>136</sup>

Table 1: Statewide Energy Savings Goals, by Program (Annual MWh)								
Sector/Program	2010		2011		2012		2010-2012	
	MWh	%	MWh	%	MWh	%	MWh	%
<b>Residential</b>								
New Construction & Major Renovation	2,735	2	3,220	2	3,817	1	9,772	2
Cooling & Heating Equipment	2,172	1	2,846	1	3,789	1	8,807	1
Multi-Family Retrofit	14,349	9	18,992	9	23,489	9	56,830	9
MassSAVE	28,588	19	38,217	19	45,801	18	112,605	18
O Power	26,000	17	52,000	25	69,000	27	147,000	24
Energy Star Lighting	65,442	43	74,335	36	90,776	35	230,553	38
Energy Star Appliances	12,262	8	16,453	8	19,200	8	47,915	8
<b>Residential Total</b>	<b>151,548</b>	<b>100</b>	<b>206,063</b>	<b>100</b>	<b>255,872</b>	<b>100</b>	<b>613,483</b>	<b>100</b>
<b>Low-Income</b>								
New Construction	429	2	507	2	693	2	1,629	2
1-4 Family Retrofit	10,631	46	13,102	43	17,901	47	41,634	45
Multi-Family Retrofit	12,251	53	17,032	56	19,454	51	48,737	53
<b>Low-Income Total</b>	<b>23,311</b>	<b>100</b>	<b>30,641</b>	<b>100</b>	<b>38,048</b>	<b>100</b>	<b>92,000</b>	<b>100</b>
<b>Commercial &amp; Industrial</b>								
New Construction & Major Renovation	98,259	22	129,265	20	146,335	18	373,859	19
Large Retrofit	284,783	63	427,772	65	517,291	64	1,229,846	64
Small Retrofit	66,526	15	103,492	16	145,877	18	315,896	16
<b>Commercial &amp; Industrial Total</b>	<b>449,568</b>	<b>100</b>	<b>660,529</b>	<b>100</b>	<b>809,504</b>	<b>100</b>	<b>1,919,600</b>	<b>100</b>
<b>Grand Total</b>								
Residential Total	151,548	24	206,063	23	255,872	23	613,483	23
Low-Income Total	23,311	4	30,641	3	38,048	3	92,000	4
Commercial & Industrial Total	449,568	72	660,529	74	809,504	73	1,919,600	73
<b>GRAND TOTAL</b>	<b>624,427</b>	<b>100</b>	<b>897,232</b>	<b>100</b>	<b>1,103,423</b>	<b>100</b>	<b>2,625,083</b>	<b>100</b>

<sup>135</sup> The values in the following tables include Unitol's January 21, 2010 supplemental filing of Exh. Unitol-1, Tab 6. Accordingly, the statewide values do not correspond with the conformed statewide tables filed by National Grid, NSTAR Electric, and WMECo, on or about January 14, 2009.

<sup>136</sup> Sources: Exhs. NG-6 Supp. Table IV.D.3.2.i (January 14, 2010); NSTAR-3 Supp. Table IV.D.3.2.i (January 14, 2010); WMECo-2 Supp. Table IV.D.3.2.i (January 15, 2010); Unitol-1, Tab 6, Supp. Table IV.D.3.2.i (January 21, 2010).



B. Table 2: Program Administrator Energy Savings Goals<sup>137</sup>

<b>Table 2: Program Administrator Energy Savings Goals, by Sector (Annual MWh)</b>				
Program Administrator/Sector	2010	2011	2012	2010-2012
<b>National Grid</b>				
Residential	85,601	114,251	144,521	344,373
Low-Income	12,340	15,026	18,225	45,591
Commercial & Industrial	191,833	288,181	341,361	821,376
<b>Total Savings</b>	<b>289,774</b>	<b>417,459</b>	<b>504,107</b>	<b>1,211,340</b>
<b>NSTAR</b>				
Residential	46,244	57,309	64,278	167,831
Low-Income	7,355	11,018	13,488	31,861
Commercial & Industrial	204,787	306,819	377,401	889,007
<b>Total Savings</b>	<b>258,386</b>	<b>375,146</b>	<b>455,167</b>	<b>1,088,698</b>
<b>WMECo</b>				
Residential	8,924	14,374	21,662	44,960
Low-Income	2,073	2,245	3,402	7,720
Commercial & Industrial	35,500	42,332	60,880	138,712
<b>Total Savings</b>	<b>46,497</b>	<b>58,951</b>	<b>85,944</b>	<b>191,392</b>
<b>Unitil</b>				
Residential	601	960	1,523	3,083
Low-Income	127	193	264	585
Commercial & Industrial	3,294	5,385	7,822	16,502
<b>Total Savings</b>	<b>4,022</b>	<b>6,538</b>	<b>9,609</b>	<b>20,169</b>
<b>Compact</b>				
Residential	10,179	19,168	23,888	53,235
Low-Income	1,416	2,158	2,669	6,244
Commercial & Industrial	14,152	17,812	22,040	54,003
<b>Total Savings</b>	<b>25,747</b>	<b>39,139</b>	<b>48,597</b>	<b>113,483</b>
<b>Grand Total</b>				
Residential	151,548	206,063	255,872	613,483
Low-Income	23,311	30,641	38,048	92,000
Commercial & Industrial	449,567	660,529	809,504	1,919,600
<b>Total Savings</b>	<b>624,427</b>	<b>897,232</b>	<b>1,103,423</b>	<b>2,625,083</b>

<sup>137</sup>

Sources: Exhs. NG-6 Supp. Table IV.D.3.2.i (December 22, 2009); NSTAR-3 Supp. IV.D.3.2.i (December 22, 2009); WMECo-2 Supp. Table IV.D.3.2.i (December 23, 2009); CLC-1, exh. E Supp. Table IV.D.3.2.i (December 14, 2009); Unitil-1, Tab 6, Supp. Table IV.D.3.2.i (January 21, 2010).

C. Table 3a: Statewide Program Budgets<sup>138</sup>

Table 3a: Statewide Program Budgets, by Sector (\$)								
Sector/Program	2010		2011		2012		2010-2012	
	\$	%	\$	%	\$	%	\$	%
<b>Residential</b>								
Programs								
New Construction & Major Renovation	3,690,980	4	4,089,757	3	4,528,422	3	12,309,159	3
Cooling & Heating Equipment	4,672,370	5	5,954,176	5	7,937,126	5	18,563,672	5
Multi-Family Retrofit	13,065,701	13	18,045,733	15	21,447,418	15	52,558,853	14
MassSAVE	38,089,203	39	48,861,802	40	58,817,455	40	145,768,461	40
O Power	1,215,345	1	1,585,051	1	2,630,879	2	5,431,276	1
Energy Star Lighting	16,577,477	17	17,984,939	15	22,012,984	15	56,575,401	15
Energy Star Appliances	5,203,850	5	6,164,059	5	6,845,833	5	18,213,743	5
Programs Total	82,514,928	85	102,685,518	84	124,220,118	84	309,420,564	84
Pilot Programs Total	3,415,730	4	3,693,267	3	3,419,239	2	10,528,237	3
Hard-to-Measure Initiatives Total	10,895,214	11	15,743,066	13	19,613,027	13	46,251,307	13
<b>Residential Total</b>	<b>96,825,872</b>	<b>100</b>	<b>122,121,851</b>	<b>100</b>	<b>147,252,384</b>	<b>100</b>	<b>366,200,107</b>	<b>100</b>
<b>Low-Income</b>								
Programs								
New Construction	1,126,588	3	1,337,289	3	1,672,054	3	4,135,930	3
1-4 Family Retrofit	19,155,231	53	23,958,622	50	33,503,285	55	76,617,137	52
Multi-Family Retrofit	15,171,945	42	21,793,974	45	24,545,143	40	61,511,062	42
Programs Total	35,453,763	97	47,089,884	97	59,720,482	98	142,264,129	97
Hard-to-Measure Initiatives Total	1,000,161	3	1,250,552	3	1,473,338	2	3,724,052	3
<b>Low-Income Total</b>	<b>36,453,924</b>	<b>100</b>	<b>48,340,436</b>	<b>100</b>	<b>61,193,820</b>	<b>100</b>	<b>145,988,181</b>	<b>100</b>
<b>Commercial &amp; Industrial</b>								
Programs								
New Construction & Major Renovation	38,703,301	24	60,846,625	23	75,784,070	22	175,333,995	23
Large Retrofit	82,089,928	51	137,011,637	53	172,572,207	51	391,673,772	52
Small Retrofit	35,407,223	22	56,401,737	22	81,911,211	24	173,720,171	23
Programs Total	156,200,451	97	254,259,999	97	330,267,488	98	740,727,938	98
Pilot Programs Total	440,750	0	443,250	0	452,850	0	1,336,850	0
Hard-to-Measure Initiatives Total	3,907,996	2	6,085,673	2	7,654,939	2	17,648,608	2
<b>Commercial &amp; Industrial Total</b>	<b>160,549,197</b>	<b>100</b>	<b>260,788,922</b>	<b>100</b>	<b>338,375,277</b>	<b>100</b>	<b>759,713,396</b>	<b>100</b>
<b>Grand Total</b>								
Residential Total	96,825,872	33	122,121,851	28	147,252,384	27	366,200,107	29
Low-Income Total	36,453,924	12	48,340,436	11	61,193,820	11	145,988,181	11
Commercial & Industrial Total	160,549,197	55	260,788,922	60	338,375,277	62	759,713,396	60
<b>GRAND TOTAL</b>	<b>293,828,994</b>	<b>100</b>	<b>431,251,209</b>	<b>100</b>	<b>546,821,481</b>	<b>100</b>	<b>1,271,901,684</b>	<b>100</b>

138

Budget values do not include recovery of lost base revenue and/or decoupling factors. Sources: Exhs. NG-6 Supp. Table IV.C.1 (January 14, 2010); NSTAR-3 Supp. Table IV.C.1 (January 14, 2010); WMECo-2, Supp. Table IV.C.1 (January 15, 2010); Unitil-1, Tab 6, Supp. Table IV.C.1 (January 21, 2010).

D. Table 3b: Statewide Pilot Program Budgets<sup>139</sup>

<b>Table 3b: Statewide Pilot Program Budgets, by Sector (\$)</b>				
Sector/Pilot Program	2010	2011	2012	2010-2012
<b>Residential</b>				
Deep Energy Retrofit	1,698,743	1,998,880	1,727,228	5,424,851
Power Monitor	75,000	41,667	0	116,667
New Construction & Major Renovation	608,133	664,518	704,742	1,977,394
New Construction Multi-Family (4-8 story)	539,589	561,235	584,036	1,684,860
New Construction Lighting Design	63,633	57,522	57,522	178,678
New Construction V3 Energy Star Homes	52,592	33,333	0	85,925
Heat Pump Water Heater	43,440	11,111	11,111	65,662
Community Based	334,600	325,000	334,600	994,200
<b>Total Residential Pilots Budget</b>	<b>3,415,730</b>	<b>3,693,267</b>	<b>3,419,239</b>	<b>10,528,237</b>
<b>% of Total Residential Budget</b>	<b>3.5%</b>	<b>3.0%</b>	<b>2.3%</b>	<b>2.9%</b>
<b>Commercial &amp; Industrial</b>				
Community Based	440,750	443,250	452,850	1,336,850
<b>% of Total C&amp;I Budget</b>	<b>0.3%</b>	<b>0.2%</b>	<b>0.1%</b>	<b>0.2%</b>
<b>Grand Total</b>				
Residential Total	3,415,730	3,693,267	3,419,239	10,528,237
C&I Total	440,750	443,250	452,850	1,336,850
<b>GRAND TOTAL</b>	<b>3,856,480</b>	<b>4,136,517</b>	<b>3,872,089</b>	<b>11,865,087</b>
<b>% of Total Budget</b>	<b>1.3%</b>	<b>1.0%</b>	<b>0.7%</b>	<b>0.9%</b>

<sup>139</sup> Sources: Exhs. NG-6, Supp. Table IV.C.1 (January 14, 2010); NSTAR-3, Supp. Table IV.C.1 (January 14, 2010); WMECo-2, Supp. Table IV.C.1 (January 15, 2010); Unutil-1, Tab 6, Supp. Table IV.C.1 (January 21, 2010),.

E. Table 3c: Statewide Hard-to-Measure Initiative Budgets<sup>140</sup>

<b>Table 3c: Statewide Hard-to-Measure Initiative Budgets, by Sector (\$)</b>				
Sector/Initiative	2010	2011	2012	2010-2012
<b>Residential</b>				
Education	1,538,794	2,316,825	2,422,309	6,277,927
Workforce Development	293,000	356,724	397,167	1,046,892
Heat Loan	5,985,554	9,518,583	12,812,395	28,316,533
Technical Development	20,000	20,000	20,000	60,000
Hot Roofs	3,000	9,000	15,000	27,000
Home Automation	10,800	19,800	19,800	50,400
Statewide Marketing & Education	1,427,149	1,533,680	1,651,018	4,611,847
EEAC Consultants	919,414	1,262,129	1,559,281	3,740,824
DOER Assessment	581,339	584,705	589,127	1,755,171
Sponsorships & Subscriptions	116,162	121,620	126,930	364,712
<b>Total Residential Initiatives</b>	<b>10,895,214</b>	<b>15,743,066</b>	<b>19,613,027</b>	<b>46,251,307</b>
<b>% of Total Residential Budget</b>	<b>11.3%</b>	<b>12.9%</b>	<b>13.3%</b>	<b>12.6%</b>
<b>Low-Income</b>				
Statewide Marketing & Education	116,468	165,130	184,617	466,215
LEAN Funding	660,745	861,402	1,062,740	2,584,888
DOER Assessment	222,948	224,020	225,981	672,949
<b>Total Low-Income Initiatives</b>	<b>1,000,161</b>	<b>1,250,552</b>	<b>1,473,338</b>	<b>3,724,052</b>
<b>% of Total Low-Income Budget</b>	<b>2.7%</b>	<b>2.6%</b>	<b>2.4%</b>	<b>2.6%</b>
<b>Commercial &amp; Industrial</b>				
Statewide Marketing & Education	393,979	1,621,638	2,093,776	4,109,393
EEAC Consultants	1,710,300	2,470,201	3,353,587	7,534,088
DOER Assessment	1,186,615	1,189,791	1,195,421	3,571,827
Sponsorships & Subscriptions	617,102	804,043	1,012,154	2,433,299
<b>Total Commercial &amp; Industrial Initiatives</b>	<b>3,907,996</b>	<b>6,085,673</b>	<b>7,654,939</b>	<b>17,648,608</b>
<b>% of Total C&amp;I Budget</b>	<b>2.4%</b>	<b>2.3%</b>	<b>2.3%</b>	<b>2.3%</b>
<b>Grand Total</b>				
Residential Total	10,895,214	15,743,066	19,613,027	46,251,307
Low-Income Total	1,000,161	1,250,552	1,473,338	3,724,052
Commercial & Industrial Total	3,907,996	6,085,673	7,654,939	17,648,608
<b>GRAND TOTAL</b>	<b>15,803,371</b>	<b>23,079,291</b>	<b>28,741,304</b>	<b>67,623,966</b>
<b>% of Total Budget</b>	<b>5.4%</b>	<b>5.4%</b>	<b>5.3%</b>	<b>5.3%</b>

<sup>140</sup> Sources: Exhs. NG-6,, Supp. Table IV.C.1 (January 14, 2010); NSTAR-3, Supp. Table IV.C.1 (January 14, 2010); WMECo-2, Supp. Table IV.C.1 (January 15, 2010); Unitil-1, Tab 6, Supp. Table IV.C.1 (January 21, 2010).

F. Table 4: Program Administrator Budgets<sup>141</sup>

Table 4: Program Administrator Budgets, by Sector								
Program Administrator/Sector	2010		2011		2012		2010-2012	
	\$	%	\$	%	\$	%	\$	%
<b>National Grid</b>								
Residential	45,930,240	35	59,956,467	31	72,260,155	29	178,146,862	31
Low-Income	18,708,843	14	23,324,437	12	29,481,714	12	71,514,994	12
Commercial & Industrial	66,498,332	51	109,844,972	57	146,877,862	59	323,221,167	56
<b>Total</b>	<b>131,137,415</b>	<b>100</b>	<b>193,125,876</b>	<b>100</b>	<b>248,619,731</b>	<b>100</b>	<b>572,883,022</b>	<b>100</b>
<b>NSTAR</b>								
Residential	35,704,274	29	42,219,241	23	48,960,273	22	126,883,789	24
Low-Income	12,695,580	10	18,574,653	10	22,785,117	10	54,055,350	10
Commercial & Industrial	73,316,420	60	124,310,039	67	153,850,851	68	351,477,310	66
<b>Total</b>	<b>121,716,273</b>	<b>100</b>	<b>185,103,933</b>	<b>100</b>	<b>225,596,241</b>	<b>100</b>	<b>532,416,448</b>	<b>100</b>
<b>WMECo</b>								
Residential	5,186,886	26	6,256,669	26	9,158,851	26	20,602,406	26
Low-Income	2,653,531	13	3,141,619	13	4,599,127	13	10,394,276	13
Commercial & Industrial	11,968,056	60	14,270,014	60	20,840,955	60	47,079,026	60
<b>Total</b>	<b>19,808,473</b>	<b>100</b>	<b>23,668,301</b>	<b>100</b>	<b>34,598,933</b>	<b>100</b>	<b>78,075,708</b>	<b>100</b>
<b>Unitil</b>								
Residential	554,556	22	1,029,557	25	1,513,204	27	3,097,317	25
Low-Income	307,221	12	448,267	11	572,318	10	1,327,806	11
Commercial & Industrial	1,667,812	66	2,605,125	64	3,623,838	63	7,896,775	64
<b>Total</b>	<b>2,529,590</b>	<b>100</b>	<b>4,082,949</b>	<b>100</b>	<b>5,709,360</b>	<b>100</b>	<b>12,321,898</b>	<b>100</b>
<b>Compact</b>								
Residential	9,449,916	51	12,659,918	50	15,359,902	48	37,469,735	49
Low-Income	2,088,750	11	2,851,462	11	3,755,545	12	8,695,756	11
Commercial & Industrial	7,098,577	38	9,758,771	39	13,181,769	41	30,039,118	39
<b>Total</b>	<b>18,637,242</b>	<b>100</b>	<b>25,270,151</b>	<b>100</b>	<b>32,297,216</b>	<b>100</b>	<b>76,204,609</b>	<b>100</b>
<b>Grand Total</b>								
Residential	96,825,872	33	122,121,851	28	147,252,384	27	366,200,109	29
Low-Income	36,453,924	12	48,340,436	11	61,193,820	11	145,988,182	11
Commercial & Industrial	160,549,198	55	260,788,922	60	338,375,276	62	759,713,395	60
<b>GRAND TOTAL</b>	<b>293,828,994</b>	<b>100</b>	<b>431,251,209</b>	<b>100</b>	<b>546,821,481</b>	<b>100</b>	<b>1,271,901,686</b>	<b>100</b>

<sup>141</sup> Sources: Exhs. NG-6,. Supp. Table IV.C.1 (December 23, 2009); NSTAR-3 Supp. Table IV.C.1 (December 22, 2009); WMECo-2 Supp. Table IV.C.1 (December 23, 2009); CLC-1, exh. E Supp. Table IV.C.1 (December 14, 2009); Unitil-1, Tab 6, Supp. Table IV.C.1 (January 21, 2010).

G. Table 5: Program Administrator Program Planning & Administration Costs<sup>142</sup>

<b>Table 5: Program Administrator Program Planning &amp; Administration Costs, by Sector</b>						
Program Administrator/Sector	2010		2011		2012	
	PP&A Costs	% of Total Budget	PP&A Costs	% of Total Budget	PP&A Costs	% of Total Budget
<b>National Grid</b>						
Residential	3,613,187	8	4,127,778	7	4,425,920	6
Low-Income	1,708,514	9	1,977,318	8	2,212,439	8
Commercial & Industrial	6,907,938	10	8,067,531	7	9,336,469	6
<b>Total</b>	<b>12,229,639</b>	<b>9</b>	<b>14,172,627</b>	<b>7</b>	<b>15,974,829</b>	<b>6</b>
<b>NSTAR</b>						
Residential	3,165,602	9	3,100,569	7	3,277,211	7
Low-Income	1,101,642	9	1,193,762	6	1,308,886	6
Commercial & Industrial	7,851,410	11	9,290,717	7	10,131,471	7
<b>Total</b>	<b>12,118,654</b>	<b>10</b>	<b>13,585,048</b>	<b>7</b>	<b>14,717,568</b>	<b>7</b>
<b>WMECo</b>						
Residential	436,550	8	569,398	9	689,064	8
Low-Income	282,194	11	334,164	11	410,352	9
Commercial & Industrial	1,555,252	13	1,598,379	11	1,970,292	9
<b>Total</b>	<b>2,273,996</b>	<b>11</b>	<b>2,501,941</b>	<b>11</b>	<b>3,069,708</b>	<b>9</b>
<b>Unitil</b>						
Residential	63,489	11	90,879	9	100,419	7
Low-Income	48,523	16	56,561	13	68,643	12
Commercial & Industrial	231,569	14	233,363	9	269,614	7
<b>Total</b>	<b>343,581</b>	<b>14</b>	<b>380,803</b>	<b>9</b>	<b>438,675</b>	<b>8</b>
<b>Compact</b>						
Residential	463,219	5	491,619	4	530,410	3
Low-Income	77,438	4	76,074	3	78,554	2
Commercial & Industrial	329,803	5	351,853	4	394,146	3
<b>Total</b>	<b>870,460</b>	<b>5</b>	<b>919,546</b>	<b>4</b>	<b>1,003,110</b>	<b>3</b>
<b>Grand Total</b>						
Residential	7,742,048	8	8,380,243	7	9,023,023	6
Low-Income	3,218,311	9	3,637,879	8	4,078,874	7
Commercial & Industrial	16,875,972	11	19,541,843	7	22,101,993	7
<b>GRAND TOTAL</b>	<b>27,836,330</b>	<b>9</b>	<b>31,559,965</b>	<b>7</b>	<b>35,203,890</b>	<b>6</b>

142

Sources: Exhs. NG-6, Supp. Table IV.C.1, Table IV.C.2.2 (December 23, 2009); NSTAR-3 Supp. Table IV.C.1, Table IV.C.2.2 (December 22, 2009); WMECo-2 Supp. Table IV.C.1, Table IV.C.2.2 (December 23, 2009); CLC-1, exh. E Supp. Table IV.C.1, Table IV.C.2.2 (December 14, 2009); Unitil-1, Tab 6, Supp. Table IV.C.1, Table IV.C.2.2 (January 21, 2010).

H. Table 6: Program Administrator Competitive Procurement<sup>143</sup>

<b>Table 6: Program Administrator Competitive Procurement, by Sector (% Competitively Bid of Total Outsourced Activities)</b>								
Program Administrator/ Sector	2010		2011		2012		2010-2012	
	% Outsourced	% Competitively Bid	% Outsourced	% Competitively Bid	% Outsourced	% Competitively Bid	% Outsourced	% Competitively Bid
<b>National Grid</b>								
Residential	89	83	91	85	91	86	90	85
Low-Income	89	63	89	67	89	67	89	65
Commercial & Industrial	52	76	51	75	56	78	54	76
<b>Total</b>	<b>72</b>	<b>78</b>	<b>73</b>	<b>79</b>	<b>74</b>	<b>80</b>	<b>73</b>	<b>79</b>
<b>NSTAR</b>								
Residential	84	95	85	96	85	96	85	96
Low-Income	81	47	85	50	86	46	84	48
Commercial & Industrial	52	76	62	91	69	91	63	88
<b>Total</b>	<b>66</b>	<b>81</b>	<b>71</b>	<b>88</b>	<b>74</b>	<b>88</b>	<b>71</b>	<b>87</b>
<b>WMECo</b>								
Residential	81	94	81	94	83	95	82	94
Low-Income	74	15	77	18	79	18	77	17
Commercial & Industrial	52	82	58	82	64	85	59	83
<b>Total</b>	<b>65</b>	<b>75</b>	<b>69</b>	<b>74</b>	<b>73</b>	<b>76</b>	<b>70</b>	<b>76</b>
<b>Unitil</b>								
Residential	28	95	34	97	29	95	31	96
Low-Income	38	22	36	30	34	30	36	28
Commercial & Industrial	16	73	20	70	29	58	23	64
<b>Total</b>	<b>21</b>	<b>66</b>	<b>26</b>	<b>71</b>	<b>30</b>	<b>61</b>	<b>26</b>	<b>65</b>
<b>Compact</b>								
Residential	91	76	93	76	93	75	92	76
Low-Income	93	30	91	30	97	31	94	31
Commercial & Industrial	79	71	82	74	93	68	86	71
<b>Total</b>	<b>88</b>	<b>68</b>	<b>89</b>	<b>69</b>	<b>94</b>	<b>64</b>	<b>91</b>	<b>67</b>

<sup>143</sup> Sources: Exhs. NG-6, Supp. Table V.D.1 (December 23, 2009); NSTAR-3 Supp. Table V.D.1 (December 22, 2009); WMECo-2 Supp. Table V.D.1 (December 23, 2009); CLC-1, exh. E Supp. Table V.D.1 (December 14, 2009); Unitil-1, Tab 6, Supp. Table V.D.1 (January 21, 2010).

I. Table 7a: Program Administrator Cost-Effectiveness<sup>144</sup>

<b>Table 7a: Program Administrator Cost-Effectiveness, by Sector (\$)</b>						
Program Administrator/Sector	2010			2011		
	BCR	Benefits	Costs	BCR	Benefits	Costs
<b>National Grid</b>						
Residential	2.85	154,786,816	54,281,853	3.68	263,773,126	71,715,851
Low-Income	2.24	42,084,424	18,773,708	2.26	52,784,010	23,397,071
Commercial & Industrial	3.06	310,046,388	101,326,121	2.51	481,232,721	191,441,313
<b>Total</b>	<b>2.91</b>	<b>506,917,628</b>	<b>174,381,683</b>	<b>2.78</b>	<b>797,789,857</b>	<b>286,554,235</b>
<b>NSTAR</b>						
Residential	2.39	99,096,556	41,432,671	2.46	121,763,310	49,485,242
Low-Income	2.64	33,488,573	12,695,580	2.52	46,760,836	18,574,653
Commercial & Industrial	3.65	351,993,166	96,537,518	3.24	518,284,302	160,009,773
<b>Total</b>	<b>3.22</b>	<b>484,578,295</b>	<b>150,665,769</b>	<b>3.01</b>	<b>686,808,448</b>	<b>228,069,668</b>
<b>WMECo</b>						
Residential	3.19	19,163,111	6,008,917	3.79	27,589,289	7,275,615
Low-Income	3.59	9,517,395	2,653,531	3.17	9,960,052	3,141,619
Commercial & Industrial	3.47	59,180,386	17,073,220	3.25	69,567,757	21,397,327
<b>Total</b>	<b>3.41</b>	<b>87,860,892</b>	<b>25,735,668</b>	<b>3.37</b>	<b>107,117,098</b>	<b>31,814,560</b>
<b>Unitil</b>						
Residential	3.13	2,356,024	753,754	2.88	3,840,759	1,331,730
Low-Income	4.40	1,351,933	307,221	4.74	2,124,216	448,267
Commercial & Industrial	2.64	6,361,064	2,405,049	2.83	10,260,908	3,620,080
<b>Total</b>	<b>2.91</b>	<b>10,069,021</b>	<b>3,466,024</b>	<b>3.00</b>	<b>16,225,883</b>	<b>5,400,077</b>
<b>Compact</b>						
Residential	3.24	34,831,733	10,752,237	3.74	56,377,187	15,060,163
Low-Income	2.84	5,922,383	2,088,750	2.81	8,019,151	2,851,462
Commercial & Industrial	3.19	26,335,472	8,250,604	2.92	32,988,237	11,278,703
<b>Total</b>	<b>3.18</b>	<b>67,089,587</b>	<b>21,091,591</b>	<b>3.34</b>	<b>97,384,575</b>	<b>29,190,328</b>
<b>Grand Total</b>						
Residential Total	2.74	310,234,240	113,229,433	3.27	473,343,671	144,868,601
Low-Income Total	2.53	92,364,709	36,518,790	2.47	119,648,265	48,413,071
Commercial & Industrial Total	3.34	753,916,475	225,592,512	2.87	1,112,333,925	387,747,196
<b>GRAND TOTAL</b>	<b>3.08</b>	<b>1,156,515,424</b>	<b>375,340,735</b>	<b>2.94</b>	<b>1,705,325,862</b>	<b>581,028,867</b>

<sup>144</sup> Sources: Exhs. NG-6, Supp. Table V.D.1 (December 23, 2009); NSTAR-3 Supp. Table V.D.1 (December 22, 2009); WMECo-2 Supp. Table V.D.1 (December 23, 2009); CLC-1, exh. E Supp. Table V.D.1 (December 14, 2009); Unitil-1, Tab 6, Supp. Table V.D.1 (January 21, 2010).



J. Table 7b: Program Administrator Cost-Effectiveness<sup>145</sup>

<b>Table 7b: Program Administrator Cost-Effectiveness, by Sector (\$)</b>						
Program Administrator/Sector	2012			2010-2012		
	BCR	Benefits	Costs	BCR	Benefits	Costs
<b>National Grid</b>						
Residential	3.86	328,845,009	85,201,436	3.54	747,404,952	211,199,140
Low-Income	2.15	63,661,348	29,625,808	2.21	158,529,782	71,796,587
Commercial & Industrial	2.26	563,963,376	249,121,807	2.50	1,355,242,485	541,889,241
<b>Total</b>	<b>2.63</b>	<b>956,469,733</b>	<b>363,949,050</b>	<b>2.74</b>	<b>2,261,177,219</b>	<b>824,884,968</b>
<b>NSTAR</b>						
Residential	2.38	135,986,717	57,094,131	2.41	356,846,583	148,012,044
Low-Income	2.73	62,237,849	22,785,117	2.64	142,487,258	54,055,350
Commercial & Industrial	3.08	622,257,756	202,266,429	3.25	1,492,535,224	458,813,720
<b>Total</b>	<b>2.91</b>	<b>820,482,322</b>	<b>282,145,677</b>	<b>3.01</b>	<b>1,991,869,065</b>	<b>660,881,114</b>
<b>WMECo</b>						
Residential	3.91	41,824,458	10,707,677	3.69	88,576,858	23,992,209
Low-Income	3.43	15,759,573	4,599,127	3.39	35,237,020	10,394,276
Commercial & Industrial	3.06	97,917,079	31,952,014	3.22	226,665,222	70,422,561
<b>Total</b>	<b>3.29</b>	<b>155,501,110</b>	<b>47,258,817</b>	<b>3.34</b>	<b>350,479,100</b>	<b>104,809,046</b>
<b>Unitil</b>						
Residential	2.66	5,119,131	1,922,171	2.82	11,315,914	4,007,655
Low-Income	4.80	2,747,280	572,318	4.69	6,223,429	1,327,806
Commercial & Industrial	2.90	14,757,317	5,094,647	2.82	31,379,289	11,119,776
<b>Total</b>	<b>2.98</b>	<b>22,623,727</b>	<b>7,589,136</b>	<b>2.97</b>	<b>48,918,631</b>	<b>16,455,237</b>
<b>Compact</b>						
Residential	3.93	73,189,249	18,612,577	3.70	164,398,169	44,424,977
Low-Income	2.66	9,980,260	3,755,545	2.75	23,921,794	8,695,756
Commercial & Industrial	2.69	40,438,792	15,045,688	2.89	99,762,501	34,574,995
<b>Total</b>	<b>3.30</b>	<b>123,608,302</b>	<b>37,413,810</b>	<b>3.29</b>	<b>288,082,465</b>	<b>87,695,728</b>
<b>Grand Total</b>						
Residential Total	3.37	584,964,564	173,537,991	3.17	1,368,542,476	431,636,025
Low-Income Total	2.52	154,386,310	61,337,914	2.50	366,399,283	146,269,775
Commercial & Industrial Total	2.66	1,339,334,321	503,480,585	2.87	3,205,584,721	1,116,820,293
<b>GRAND TOTAL</b>	<b>2.82</b>	<b>2,078,685,195</b>	<b>738,356,491</b>	<b>2.92</b>	<b>4,940,526,480</b>	<b>1,694,726,094</b>

<sup>145</sup> Sources: Exhs. NG-6, Supp. Table V.D.1 (December 23, 2009); NSTAR-3 Supp. Table V.D.1 (December 23, 2009); WMECo-2 Supp. Table V.D.1 (Dec. 23, 2009); CLC-1, exh. E Supp. (December 14, 2009); Unitil-1, Tab 6, Supp. Table V.D.1 (January 21, 2010).

K. Table 8: Statewide Program Cost-Effectiveness<sup>146</sup>

Table 8: Statewide Program Cost-Effectiveness 2010-2012, by Sector (\$)										
Sector/Program	Benefit-Cost Ratio	Electric Benefits						Non-Electric Benefits		Total Benefits
		Avoided Energy	Avoided Capacity	Avoided Transmission	Avoided Distribution	DRIPE		Resource	Non-Resource	
						Capacity	Energy			
<b>Residential</b>										
New Construction & Major Renovation	1.85	10,213,810	3,805,828	1,501,776	5,322,786	905,422	2,139,866	30,125,763	355,922	54,371,173
Cooling & Heating Equipment	1.30	13,052,678	2,958,398	1,536,974	5,433,750	1,631,364	2,289,159	(2,768,271)	363,451	24,497,502
Multi-Family Retrofit	1.81	63,475,485	2,144,807	940,553	3,387,884	1,002,189	12,240,441	11,890,223	1,346,738	96,428,320
MassSAVE	5.11	92,626,487	30,404,379	14,025,526	40,017,490	9,159,366	23,650,575	686,627,297	4,450,514	900,961,634
O Power	3.58	11,059,874	435,109	59,114	118,630	0	7,780,643	459	0	19,453,829
Energy Star Lighting	3.41	146,421,906	5,365,559	1,280,532	4,675,392	5,461,990	47,434,797	2,484	13,949,225	224,591,884
Energy Star Appliances	1.93	31,018,063	1,431,865	958,666	3,179,940	1,533,115	10,111,135	5,355	0	48,238,138
<b>Residential Total</b>	<b>3.17</b>	<b>367,868,303</b>	<b>46,545,945</b>	<b>20,303,141</b>	<b>62,135,871</b>	<b>19,693,446</b>	<b>105,646,616</b>	<b>725,883,309</b>	<b>20,465,849</b>	<b>1,368,542,480</b>
<b>Low-Income</b>										
New Construction	1.91	1,438,586	687,479	255,771	998,134	168,579	358,021	3,903,219	616,232	8,426,021
1-5 Family Retrofit	2.65	40,335,145	1,613,666	823,894	3,076,408	994,501	9,147,384	45,683,602	101,331,638	203,006,237
Multi-Family Retrofit	2.52	57,909,499	2,039,159	700,287	1,842,611	912,601	10,837,237	31,331,198	49,394,433	154,967,024
<b>Low-Income Total</b>	<b>2.50</b>	<b>99,683,231</b>	<b>4,340,304</b>	<b>1,779,951</b>	<b>5,917,154</b>	<b>2,075,680</b>	<b>20,342,642</b>	<b>80,918,019</b>	<b>151,342,302</b>	<b>366,399,283</b>
<b>Commercial &amp; Industrial</b>										
New Construction & Major Renovation	3.66	515,896,681	31,346,238	21,292,417	66,790,606	16,822,518	99,307,742	670,289	3,954,881	756,081,372
Large Retrofit	2.81	1,315,457,699	53,073,773	43,468,660	135,454,668	40,898,793	314,641,621	(23,797,429)	19,784,830	1,898,982,615
Small Retrofit	2.57	340,802,977	20,742,970	15,666,194	49,963,263	16,753,511	82,603,432	(21,762,663)	45,751,050	550,520,734
<b>Commercial &amp; Industrial Total</b>	<b>2.87</b>	<b>2,172,157,357</b>	<b>105,162,981</b>	<b>80,427,271</b>	<b>252,208,538</b>	<b>74,474,822</b>	<b>496,552,794</b>	<b>(44,889,803)</b>	<b>69,490,761</b>	<b>3,205,584,721</b>
<b>Grand Total</b>										
Residential Total	3.17	367,868,303	46,545,945	20,303,141	62,135,871	19,693,446	105,646,616	725,883,309	20,465,849	1,368,542,480
Low-Income Total	2.50	99,683,231	4,340,304	1,779,951	5,917,154	2,075,680	20,342,642	80,918,019	151,342,302	366,399,283
Commercial & Industrial Total	2.87	2,172,157,357	105,162,981	80,427,271	252,208,538	74,474,822	496,552,794	(44,889,803)	69,490,761	3,205,584,721
<b>GRAND TOTAL</b>	<b>2.92</b>	<b>2,639,708,890</b>	<b>156,049,229</b>	<b>102,510,363</b>	<b>320,261,563</b>	<b>96,243,949</b>	<b>622,542,052</b>	<b>761,911,525</b>	<b>241,298,912</b>	<b>4,940,526,483</b>

<sup>146</sup>

Sources: Exhs. NG-6, Supp. Table IV.B.1 (December 23, 2009); NSTAR-3 Supp. Table IV.B.1 (December 22, 2009); WMECo-2 Supp. Table IV.B.1 (December 23, 2009); CLC-1, exh. E Supp. Table IV.B.1 (December 14, 2009); Unitil-1, Tab 6, Supp. Table IV.B.1 (January 21, 2010).

L. Table 9: Program Administrator Funding Sources<sup>147</sup>

Table 9: Program Administrator Funding Sources (\$)								
Program Administrator/Source	2010		2011		2012		2010-2012	
	\$	%	\$	%	\$	%	\$	%
<b>National Grid</b>								
SBC	55,204,109	41	56,012,624	28	56,944,152	22	168,160,885	28
FCM	4,610,505	3	4,595,479	2	5,100,040	2	14,306,024	2
RGGI	24,469,995	18	24,886,819	12	18,620,733	7	67,977,547	11
Outside	0	0	27,952,904	14	55,905,808	21	83,858,712	14
EERF	52,716,450	39	85,973,466	43	123,552,408	47	262,242,325	44
<b>Total</b>	<b>134,175,500</b>	<b>100</b>	<b>199,421,292</b>	<b>100</b>	<b>260,123,140</b>	<b>100</b>	<b>593,719,932</b>	<b>100</b>
<b>NSTAR</b>								
SBC	49,688,065	39	50,164,219	25	51,042,034	20	150,894,318	26
FCM	5,509,517	4	5,463,523	3	5,380,220	2	16,353,260	3
RGGI	21,260,902	17	21,623,061	11	16,178,735	6	59,062,698	10
Outside	0	0	24,288,464	12	48,576,927	19	72,865,391	13
EERF	56,807,277	45	96,488,730	49	128,683,750	52	281,979,757	49
<b>Total</b>	<b>126,715,236</b>	<b>100</b>	<b>198,027,996</b>	<b>100</b>	<b>249,861,667</b>	<b>100</b>	<b>574,604,899</b>	<b>100</b>
<b>WMECo</b>								
SBC	9,228,326	46	9,201,475	38	9,194,000	26	27,623,801	34
FCM	605,940	3	579,524	2	647,534	2	1,832,998	2
RGGI	4,054,698	20	4,123,766	17	3,085,470	9	11,263,934	14
Outside	0	0	4,500,000	19	9,000,000	25	13,500,000	17
EERF	6,270,964	31	5,884,192	24	13,800,785	39	25,955,941	32
<b>Total</b>	<b>20,159,927</b>	<b>100</b>	<b>24,288,957</b>	<b>100</b>	<b>35,727,789</b>	<b>100</b>	<b>80,176,673</b>	<b>100</b>
<b>Unitil</b>								
SBC	1,116,960	43	1,126,110	26	1,141,605	18	3,384,675	26
FCM	80,234	3	101,782	2	145,132	2	327,148	3
RGGI	535,724	21	544,850	13	407,666	7	1,488,240	11
Outside	0	0	612,888	14	1,225,635	20	1,838,523	14
EERF	\$881,814	34	1,892,066	44	3,266,184	53	6,040,064	46
<b>Total</b>	<b>2,582,598</b>	<b>100</b>	<b>4,286,168</b>	<b>100</b>	<b>6,206,276</b>	<b>100</b>	<b>13,075,043</b>	<b>100</b>
<b>Compact</b>								
SBC	4,976,904	27	4,977,299	20	4,954,923	15	14,909,126	20
FCM	481,529	3	630,769	2	729,115	2	1,841,414	2
RGGI	2,201,386	12	2,238,885	9	1,675,171	5	6,115,442	8
Outside	836,700	4	2,514,817	10	5,029,633	16	8,381,150	11
EERF	9,690,723	52	14,908,381	59	19,908,374	62	44,507,479	58
<b>Total</b>	<b>18,637,242</b>	<b>100</b>	<b>25,270,151</b>	<b>100</b>	<b>32,297,216</b>	<b>100</b>	<b>76,204,609</b>	<b>100</b>
<b>Grand Total</b>								
SBC Total	120,214,363	39	121,481,727	27	123,276,714	21	364,972,804	27
FCM Total	11,287,725	4	11,371,078	3	12,002,041	2	34,660,844	3
RGGI Total	52,522,705	17	53,417,380	12	39,967,775	7	145,907,860	11
Outside Total	836,700	0	59,869,072	13	119,738,003	20	180,443,775	13
EERF Total	126,367,229	41	205,146,836	45	289,211,500	49	620,725,565	47
<b>GRAND TOTAL</b>	<b>302,270,503</b>	<b>100</b>	<b>451,294,564</b>	<b>100</b>	<b>584,216,088</b>	<b>100</b>	<b>1,337,781,156</b>	<b>100</b>

147

Sources: Exhs. NG-6, Supp. Table IV.B.1 (December 23, 2009); NSTAR-3 Supp. Table IV.B.1 (December 22, 2009); WMECo-2 Supp. Table IV.B.1 (December 23, 2009); CLC-1, exh. E Supp. Table IV.B.1 (December 14, 2009); Unitil-1, Tab 6, Supp. Table IV.B.1 (January 21, 2010). Individual funding sources may not sum to the total, particularly for 2010, since some Program Administrator have included estimates for carryover for 2010.

An appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part. Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of the twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. G.L. c. 25, § 5.